

MILWAUKEE AREA TECHNICAL COLLEGE



MATC

2024-25 CATALOG



**AN MATC
EDUCATION
MAKES MORE
POSSIBLE.**





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MAKING MORE POSSIBLE

Here's How You Get There

Whether you're a high school student about to graduate or a working adult with young children who dreams of a career change, MATC has a path for you. With affordable tuition, a vast array of programs to choose from (more than 180) and the support to overcome challenges you may face, MATC sets you up to succeed from day one. Every year, more than 30,000 students choose MATC.

MATC MAKES IT HAPPEN

The college works with local industry and business partners to keep existing programs up-to-date and develop new programs that meet workforce needs. And, MATC has programs to empower and uplift everyone, from teens who want a head start in college to working adults who want to brush up on basic skills to get their high school credentials or immigrants who want to learn English.

- Associate Degrees
- Technical Diplomas
- Certificates
- Digital Badges
- Bilingual Programs
- Continuing Education Courses
- High School Credits
- Adult High School
- Dual Enrollment
- English as a Second Language
- Just Take a Class
- Professional Development

WE'RE HERE TO SUPPORT YOU

With bilingual services, tutoring, academic advising, career counseling and employment services, MATC can help you reach your goals. Find more information about these services, starting on page 18.

START DATES FOR 2024-25

SUMMER SESSION
week of June 9, 2024

FALL SEMESTER
week of August 18, 2024

SPRING SEMESTER
week of January 19, 2025

HOW TO APPLY

ONLINE
matc.edu/apply

IN PERSON AT ANY CAMPUS

You'll find computer stations for completing applications for admission, financial aid and registration. Our team will be ready to help.

LOCATIONS

Downtown

Milwaukee Campus
700 West State Street
Milwaukee, WI 53233

MATC Education Center at Walker's Square
816 West National Avenue
Milwaukee, WI 53204

Mequon Campus
5555 West Highland Road
Mequon, WI 53092

Oak Creek Campus
6665 South Howell Avenue
Oak Creek, WI 53154

Online Campus
onlinelearning@matc.edu

West Allis Campus
1200 South 71st Street
West Allis, WI 53214



CONTACT INFORMATION

MATC.EDU

Hint: Find everything you need to know about the college on the website.

MATC.EDU/ES

Explore our website in Spanish.

414-297-MATC (6282)

Wisconsin Relay System 711

Find Us on Social Media



FLEXIBLE COURSE FORMATS

Because many students are juggling full-time jobs and family, MATC offers eight-, 12- or 16-week courses weekdays, evenings and weekends in person and online.

Face-To-Face

Take courses in person at any of our campuses or educational sites.

Online

More than 48 associate degree, technical diploma and certificate programs are offered entirely online.

Hybrid/Blended

Combines online and in-person instruction to fit your schedule.

Accelerated Degree Programs

Designed especially for working adults, these programs are almost entirely online.



I always had a passion. With maturity and help from great instructors, I tapped into that passion to realize my potential.”

DIEGO SANCHEZ,
Diesel and Powertrain
Servicing graduate



MISSION

Education that transforms lives, industry and community

VISION

The best choice in education, where everyone can succeed

VALUES

Empowerment, Inclusion, Innovation, Integrity, Respect

CREDENTIALS

Degrees for Every Goal

Students come to MATC to save time and money as they train for a career or earn credits toward a bachelor's degree. The college offers a variety of credentials in 180+ programs: associate degrees, technical diplomas and certificates, plus digital badges. Each helps you reach your goals. Read below and find the credential for you.



COMMUNITY LEARNING

MATC Offers Even More

Maybe you want to get your high school diploma, brush up on basic skills, learn English or just enjoy a class? MATC has programming to help you do it all.

FINISH HIGH SCHOOL GET CAUGHT UP

A high school diploma or GED certificate is a requirement for admission to most of the college's academic programs. If life got in the way of finishing high school, MATC can help. See page 314 for details about Community Education programs.

CURRENTLY IN HIGH SCHOOL GET A HEAD START ON COLLEGE

High school students can earn credit toward their graduation — and a college credential — through Dual Enrollment Academy, Start College Now, Transcribed Credit and Contracted Courses.

FOR CURRENT STUDENTS STUDY ABROAD

MATC offers a number of study abroad opportunities for students interested in learning firsthand about cultures around the world.

matc.edu (search International Study)

WORKING ADULTS PROFESSIONAL DEVELOPMENT

Bring MATC's training programs to your organization at times that fit your schedule through Workforce Solutions.

matc.edu (search Workforce Solutions)

COMMUNITY MEMBERS AUDITING COURSES

Take a class without the pressure of homework or exams. Please note that audited courses aren't for credit and aren't eligible for financial aid or veterans benefits.

Wisconsin residents 60 years or older may audit some courses on a space-available basis for free (tuition is waived, but you must pay for fees and materials). To find out which courses can be audited, email register@matc.edu or call 414-297-7900.

COMMUNITY MEMBERS TAKE A CLASS

Anyone can just take a class at MATC without earning a credential (though you won't be eligible for financial aid). Complete a Non-Program Student application and register for the classes you want to take.

matc.edu (search Take a Class)

APPLY

Admissions

HERE'S HOW TO APPLY

1. Fill Out Your Application

Go to matc.edu/apply or visit any **MATC** campus.

A few items to note:

- a. You must have a high school diploma or GED equivalency certificate to enter an MATC associate degree or technical diploma program — only a few exceptions apply. If you need to finish high school or must take required courses to fulfill program requirements, MATC can help. See page 314 for details.
- b. MATC charges a \$2 processing fee on all applications to help verify future student identities.

2. Submit Official Transcripts

Depending on your experience, you will submit one or more from the following list:

- a. Official high school transcripts with graduation date from a regionally accredited institution
- b. GED/HSED Diploma (submit scores if available)
- c. Homeschool PI-1206 form and detailed transcript college/university
- d. Out of country transcripts (must be translated and evaluated by an approved agency)

Some programs have additional admission requirements such as criminal background check or licensure. See the box at right for other requirements.

3. Financial Aid

Apply for federal financial aid as early as possible. Learn how on page 8.

4. Watch for Your Acceptance Letter via Email

A COUPLE OF THINGS TO NOTE

Returning Students Applying for Readmission

If you have taken a break from your program (more than two semesters, not including summer), then you must apply for readmission. Complete a program readmission application online at matc.edu (search Returning Students.) You will follow the program requirements in effect at the time of your readmission. If the program you are reapplying to has a waiting list, you may have to join that list.

Waiting Lists

Waiting lists are used when we have more applicants than we have spots available in a program. When you complete your application to a program that's already full, you'll be placed on the Waiting List in the order that you finished applying for the program.

While waiting to take core courses, you can still enroll in your program's specified general studies courses, such as English, math and electives.

Previously Earned MATC Credits

MATC has designed many of its programs to offer students a quicker

OTHER REQUIREMENTS

Petition Process

Programs in the Healthcare Academic & Career Pathway admit students via petitioning process. For additional information related to Healthcare programs, see page 117 and visit matchealth.com.

Other programs, such as Truck Driving and Funeral Service, also require students petition for admission. Check your program's admission requirements starting in your Pathway's programs listing, starting on page 25.

Health and Criminal Background Check

Health and criminal background checks are required for some programs and courses. Agencies who serve as clinical or field placement sites reserve the right to deny a student's placement based upon health and/or criminal background check results. See information on a program's webpage at matc.edu.

path to completing advanced credentials by applying their credits earned previously in a related MATC certificate or technical diploma. Talk with a Pathway advisor for details.

International Students

MATC welcomes international students! Those who plan to apply for a student visa should visit matc.edu (search International Students.) You also may write to:

Milwaukee Area Technical College
International Student Admissions Office
1200 South 71st Street, Room 120
West Allis, WI 53214

ORIENTATION

Get Ready for Success

Congratulations! Now that you've committed to MATC, the next step is setting up your online account with Self-Service and planning for orientation.

1. Set Up Your MATC Online Account

- Visit selfservice.matc.edu and click on **Forgot your username?**
- Your username will be sent to the email account you used to apply.
- After you receive your username, return to Self-Service and enter your username.
- At the next form, enter your MATC email address.
- Your default password begins with Sp23\$ and ends with the month and day of your birth. For example, if your day of birth is August 3, the default password is: Sp23\$0803.

2. Participate in STORM

STORM is your online orientation experience that supports class registration and getting to know MATC. Students must participate in order to register. You will get an invitation from your Admissions navigator. RSVP to participate and meet your Pathway team!

3. Register for Classes and Payment Options

Current and new students can register for classes online at selfservice.matc.edu (choose Student Planning.) Select Student Finance for payment options.

Self-Service

Once you enroll, Self-Service helps you stay connected and access key college services.

- Register for classes.
- Pay tuition and fees and enroll in a payment plan.
- Get immediate, 24/7 information about your financial aid without waiting on hold or in a line.
- View your class schedule and cumulative GPA.
- Review and print your unofficial transcript.
- View your semester grades.

Go to selfservice.matc.edu and log in with your MATC email and password.

FLEXIBILITY

Online Campus

In addition to taking classes in person at any of MATC's four physical campuses and other educational sites, students have even greater flexibility thanks to the college's fifth campus — the Online Campus. Developed in the 1990s, the Online Campus offers 48 associate degrees, technical diplomas and certificates, plus microcredentials known as digital badges.

Courses are offered two ways:

1. 100% online and on demand. Students learn at their own pace accessing courses online through Blackboard at a time that suits their schedules.
2. 100% online and virtual. Attend virtual lectures on a regular schedule while completing coursework online.

RESOURCES

[Blackboard.com/matc.edu](https://blackboard.com/matc.edu)

MATC's online courses are offered via Blackboard, a virtual learning environment.

Newsletter

Each month, the e-newsletter Online Campus & EdTech News shares tips and the latest developments in online learning to support student success.

Online Learning Support

Offers tutorials and skills workshops to guide online students through their coursework. Virtual advising and coaching is also available.

Contact

matc.edu (search Online Campus)
onlinelearning@matc.edu

FINANCIAL AID

Pay for College

MATC delivers a high-quality education at a fantastic price, and the college works to make it affordable for students in the Milwaukee area through financial aid and scholarships for eligible students.

APPLY FOR FINANCIAL AID

In order to receive financial aid, you must be admitted to an MATC associate degree or technical diploma program before the admission application deadline. Here's how you apply for financial aid:

1. Create a StudentAid.gov Account

Go to studentaid.gov/fsa-id/create-account. All FAFSA contributors must have a StudentAid.gov account to access the online form. A contributor could be your parent, stepparent or spouse. Contributors will receive an email if the FAFSA determines their information is needed. Contributors are not financially responsible to pay for school, but their information is required.

2. Gather All Required FAFSA® Information

Collect your 2022 Federal Tax Return. If you're a dependent, you'll need your parents' Social Security numbers and dates of birth to invite them as contributors.

3. Complete Your FAFSA Form

Go to fafsa.gov, select "Start New Form" and enter your StudentAid.gov account username and password (FSA ID). The MATC federal school code is 003866. FAFSA tips can be found at studentaid.gov/announcements-events/fafsa-support/pro-tips.

4. Sign the FAFSA

You (and your contributors) will agree to the FAFSA certification statement and sign the application. You can then submit your section of the FAFSA. All contributors must provide their information, give consent to transfer federal tax information and sign the form.

5. View Your FAFSA Submission Summary

Check the status of your FAFSA, make sure the form has been submitted and review the FAFSA Submission Summary on **StudentAid.gov**.

6. Review Your financial Aid Offer on Self-Service

You can review your offered financial aid and next steps on your Self-Service account at **selfservice.matc.edu**.

FINANCIAL AID CONTACT

The Financial Aid office is here to help!

For in-person assistance, visit these locations:

Downtown Milwaukee Campus, S Building, Room S110

Mequon Campus
Room A110

Oak Creek Campus
Room A106

West Allis Campus
Room 120

Questions?

414-297-6282
finaid@matc.edu

MULTIPLE CENSUS DATES

For more information on Census Dates and Degree Audit, go to **matc.edu** (search Cost and Aid Deadlines.)

SCHOLARSHIPS

Making Education a Financial Reality

Higher education doesn't have to mean high costs. MATC wants to help you find ways to pay for a life-transforming degree that can lead to a family-sustaining career. Check out the following scholarships offered by the MATC Foundation.

Ellen & Joe Checota MATC Scholarship Program

The Checota MATC Scholarship is a full-ride scholarship designed to accelerate careers and remove financial barriers so students can earn their technical diploma or certificate and advance in careers faster. The scholarship covers:

- Tuition and course fees
- Books
- Required equipment/supplies through the MATC Bookstore
- Child care reimbursed through MATC Children's Centers or a state-licensed child care provider
- Food through MATC Campus Meal Plan
- Housing as available at MATC's Westown Green apartments
- Transportation options

This is a last-dollar scholarship and these items are funded after all other sources of state, federal and other financial assistance programs are applied.

The MATC Promise for New High School Graduates

MATC established Wisconsin's first free-tuition Promise program in 2015. The MATC Promise for New High School Graduates pays the tuition for up to 75 credits for eligible students, after other scholarships and grants are applied. The program recently was expanded to include students completing their GED, HSED or MATC's Adult High School during the eligible time frame. The cost of books, program fees and equipment are not covered.

The MATC Promise for Adults

The Promise for Adults assists students aged 24 and older who started but did not complete a college degree. Eligible students can receive up to 75 credits of free tuition, after other scholarships and grants are applied, to complete an in-demand program.

For deadlines and more information, visit matc.edu/scholarships.

OTHER SCHOLARSHIPS

In addition to the Checota MATC Scholarship Program and Promise, MATC has more scholarships and emergency assistance grants available.

Most scholarships are awarded as multiple-semester (Fall and Spring) scholarships for the next academic year. Here's when you should apply:

New high school graduates and first-time MATC students may apply May 1-31, 2024.

Current and continuing students should apply in February. Scholarship recipients are selected and notified via email in May.

Questions?

scholarships@matc.edu



“Growing up, so many people told me that college was just a no. My family didn't have the resources. Checota changed all that for me.”

SAMANTHA ALBERT, Checota scholar

Find Your Future

MATC's programs are organized into seven Academic and Career Pathways that are designed to put you on the path to success: graduation and a career, transferring to a four-year university or both. Each Pathway has a support team that can help with academics and issues outside the classroom, such as finding child care, food, housing and transportation. The first step for any student is to select a Pathway and then meet with an advisor before registering for classes.



BUSINESS & MANAGEMENT

Enter the world of business and finance with the skills to manage and supervise. Instructors with industry expertise lead programs in accounting, business management, finance, marketing, entrepreneurship, real estate, human resources and more. See page 25.



GENERAL EDUCATION

Your journey to a bachelor's degree starts right here. Complete General Education requirements, earn an associate of arts or science degree specific to your transfer major, and check off prerequisites for a bachelor's degree at one of our 40+ transfer partners. See page 103.



COMMUNITY & HUMAN SERVICES

Serving your community is a noble calling, whether you are on the front line as a paramedic, firefighter, police officer, teacher, social worker, or serve in other ways as a child care provider, barber, cosmetologist or funeral director. Experienced instructors teach you the skills to make a difference in the community. See page 59.



HEALTHCARE

Strengthen and build the well-being of our community as a healthcare provider. MATC works with leading healthcare organizations to create cutting-edge programs taught by instructors who encourage students to challenge the status quo and provide compassionate care. Students get hands-on experience in simulation labs, preparing them to be the next generation of healthcare professionals. See page 117.



CREATIVE ARTS, DESIGN & MEDIA

Calling all bakers, designers and website makers! Turn your passion and creative talents into a career. Programs include animation, baking and pastry arts, computer simulation and gaming, culinary arts, television and video production, graphic design, interior design, photography, music occupations, and more. See page 80.



Scan these QR codes to learn more about the programs in each Pathway.



MANUFACTURING, CONSTRUCTION & TRANSPORTATION

Get the hands-on, real-world instruction that employers value from faculty who are industry experts in manufacturing, construction and transportation. Learn the trades in classrooms with state-of-the-art equipment and be job-ready on day one. See page 149.



SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (STEM)

Embrace your problem-solving, analytical side and pursue a career in science, technology, engineering and mathematics. STEM instructors stay up-to-date on industry trends and the ever-changing tech landscape to prepare you for a career in electronics technology, civil engineering, mechanical design technology, information technology and more. See page 185.

CAREER ESSENTIALS

All programs teach and assess:

Professionalism
Problem-Solving
Effective Communication

And, they emphasize:

Global Awareness
Technology
Math



CAREER COACHES

Picking a Pathway and a program (we have 180+) is an important step in your education at MATC.

Career coaches in the college's CareerHub help undecided students make that decision. Here are some tips from Nutan Amrute (above) and her career-coaching team:

1. Connect with your career coach today to start the career-planning process and enter your preferred program!
2. Before meeting with your coach, get to know yourself. How do you like to spend your time? Convert your passion into a career!
3. Take it a step further and make a list of the skills you currently have and the jobs you've had and loved.
4. Research careers you are curious about and bring your thoughts and questions to your meeting with a career coach.
5. Take career assessments — a career coach at MATC can help!
6. Ask questions! It is perfectly fine to admit when you don't know something or if something doesn't make sense. Career coaches help break things down.

Questions? Connect with a career coach!

careercoaching@matc.edu
414-297-6244

REGISTRATION

Signing Up for Classes

Continuing students have the first opportunity to register for their courses over a two-week period by their Academic and Career Pathway. Register early for the best choices. Once Open Registration begins, students can register on any day up to the start of a course.

HOW TO REGISTER

Log on to selfservice.matc.edu and choose Student Planning.

WEEK 1
Continuing Students

Monday: Veterans

Tuesday: Healthcare Pathway and Community Education

Wednesday: Business & Management and STEM

Thursday: Community & Human Services and General Education

Friday: Creative Arts, Design & Media and Manufacturing, Construction & Transportation

WEEK 2
New, Returning* and Continuing Students

Monday: Veterans

Tuesday: Healthcare Pathway and Community Education

Wednesday: Business & Management and STEM

Thursday: Community & Human Services and General Education

Friday: Creative Arts, Design & Media and Manufacturing, Construction & Transportation

**Returning after two or more semesters away.*

WEEK 3
Open Registration

Students not accepted into a program or anyone who didn't register during the registration period may do so during Open Registration. This occurs on the Monday after the first two weeks of registration are complete.

Advising Days

Visit with your advisor during Advising Days to make sure you are meeting course prerequisites and are on track to finish your program.

Service Members Priority Registration

We honor the fact that state law gives veterans and members of the armed forces priority in registering for courses at Wisconsin technical colleges and the University of Wisconsin System. Veterans register on the first day of each registration period. The Military Education Support Office (MESO) has veterans registration information available. matc.edu (search MESO)

Payment Options

Once you've selected your courses, pick a payment option.

Payment options include:

- Awarded financial aid
- Sponsorship received by MATC
- Enrolled in the MATC Payment Plan
- Paid in full

Visit selfservice.matc.edu to enroll in a payment plan. You can pay in person or online at selfservice.matc.edu and choose Student Finance.

Fees for most courses are set by the Wisconsin Technical College System Board and are updated each academic year.

CREDIT FOR PRIOR LEARNING AND EXPERIENCE (CPL)

Get Credit for What You Already Know

Before you pick your courses and start at MATC, think about what previous courses and experiences could earn you college credit. It's possible you've already gained college-level learning on your own. CPL is a way to earn credit for specific MATC courses based on skills learned as part of courses completed from another college, work experience, professional licenses, certificates, apprenticeships, military training or through training programs. To graduate, all students must complete 25% of their coursework at MATC.

SAVE MONEY ON COURSE MATERIALS

Pay little or nothing for course materials by using Open Educational Resources (OER), which are textbooks, modules, streaming videos, tests, software and any other tools or materials in the public domain that can be used for free. It's interactive, convenient and eco-friendly.

Access No Cost or Low Cost Course Materials in three easy steps:

1. Go to Self-Service and select "Course Catalog."
2. Scroll to "Course Types" and select "No Cost Books/Materials" or "Low Cost Books/Materials <\$50."
3. Select courses from the list and enroll.



PATHWAY ADVISORS

Each Pathway has a team of advisors available to support students along their educational journey. Email your Pathway to connect with an advisor.

Margaret Ehlert, one of many advisors in the Community & Human Services Pathway, shares how advisors can help:

"Working with a pathway advisor will ensure that students have pertinent information up front, which helps them make the best choice for classes to take each semester and allows them to get through the program in the most efficient way.

We discuss workloads with students and time needed for each class, help them look at their home and work schedule commitments, and collaborate with students to set them up for success."

TRANSFER

Start a Bachelor's Degree at MATC

MATC makes it easy! You can seamlessly transfer many MATC credits to virtually any four-year college or university in Wisconsin, and to others across the nation.

PLAN AHEAD

It's important to check with your program advisor to find out which courses and programs will transfer to the four-year college or university you plan to attend. Also, keep in touch with the admissions department of your choice school and make sure your MATC work matches its bachelor's degree requirements.

UNDERSTANDING YOUR TRANSFER OPTIONS

Research your transfer options to find the right fit. Some MATC transfer arrangements are course-to-course agreements, while others allow a complete degree program transfer. It's important to understand the different types of agreements:

Liberal Arts and Sciences Transfer

Earn 60 or more bachelor's degree transfer credits through programs in MATC's General Education Academic & Career Pathway. You can transfer credits earned in MATC's 200-level courses to most four-year colleges and universities in Wisconsin, and to others across the nation. MATC's Associate of Arts and Associate of Science degrees are equivalent to the general education/liberal arts and sciences requirements for freshmen and sophomores enrolled in many bachelor's degree programs at four-year colleges and universities.

Program-to-Program Transfer Agreements

Selected associate degree program credits are accepted as the first two years of a related bachelor's degree program at designated partner four-year colleges and universities.

All-Inclusive Transfer Agreements

MATC students may transfer many or all of their credits from MATC and apply them toward a four-year degree at the accepting school.

Transfer Agreements by Institution

Find out which four-year colleges and universities have transfer agreements with MATC. Get the specifics about the MATC degree programs they accept for transfer. Some are all-inclusive.

Transfer agreements set the credits that will transfer to a four-year institution. If no agreement is in place, you should talk with the institution you are planning to attend and discuss what they are willing to accept.

For a complete list of agreements, visit matc.edu/transfer.

TRANSFER RESOURCES

MATC's Office of Articulation and Transfer

Contact

matc.edu/transfer
414-297-6836

Transfer Events

MATC hosts representatives from many public and private colleges and universities throughout the academic year. Check matc.edu/events for dates and times:

- Semiannual Transfer Days
- Weekly four-year transfer partner visits
- On-campus university services through the Center for University Partnerships and Studies

Guaranteed Transfers

MATC has agreements in place with four-year colleges and universities that guarantee transfers as long as academic requirements are met. Here are a few:

Alverno College
Concordia College
Lakeland University
Marquette University
University of Wisconsin System (Madison, Milwaukee, Parkside)

JOB RESOURCES

CareerHub

CareerHub is here to help with your job or internship search. Get ready for your career by taking advantage of career coaching, resume reviews, mock interviews and opportunities to connect with area employers. Here's a list of what CareerHub has to offer:

- Student employment/work study
- Internships/InternConnect
- Career coaching/planning
- CareerHub events
- Find a job/career readiness
- Career services for diverse populations
- Transfer options with four-year transfer partners
- Transfer in and Credit for Prior Learning and Experience
- Opportunities to connect with employers

Contact

matc.edu/careerhub
careerhub@matc.edu
414-297-6244

Office Locations

Downtown Milwaukee Campus, Room S101
Oak Creek Campus, Room A106
Mequon Campus, Room A100



INTERNSHIPS

Internships allow students to apply what they've learned while gaining real experience, by combining in-class work with a career-related job. You will acquire work experience, enhance personal growth and you may earn college credit. Internships are mandatory in some MATC programs and optional in others; refer to the program's curriculum. Visit matc.edu (search Internships) for more information.

HANDSHAKE

Handshake is an online career platform that is a resource for students and alumni to connect with internships and job opportunities. joinhandshake.com.

FIND EMPLOYMENT INFORMATION

MATC's Graduate Career Report is a snapshot of the college's graduates and their career and salary information. It's a helpful resource for prospective and current students as they plan their education and careers. Visit matc.edu (search Career Report.)

WORKFORCE SOLUTIONS

MATC Workforce Solutions offers businesses professional training and development including custom and on-site options. We provide training that is responsive for today's fast-paced, ever-changing business environment and produce outcomes that can be applied on the job immediately. Led by experienced professional educators, each cost-effective program is custom-designed and scalable to fit individual business needs. Workforce Solutions is committed to the economic development of the region and achieving a diverse and trained workforce.

Our services include:

- Organizationwide training and development programs at your location, our campus or delivered in an online virtual format
- Customized training to improve organizational and leadership performance
- Enhancement of workforce skills to improve employee productivity
- Professional development workshops and seminars
- Workforce Advancement Training (WAT) grants to upskill incumbent employees

For more information about the services available, visit matc.edu (search Workforce Solutions.)

ACADEMIC STANDARDS

Expectations for Student Success

The MATC Standards of Academic Success are the requirements for students to maintain satisfactory academic progress. This lets students know when they may need additional help and when they are at risk.

The Standards of Academic Success apply to all students enrolled in associate degree and technical diploma programs.

MATC calculates students' Academic Status three times each year: after the end of the Fall, Spring and Summer semesters. Grade changes and completion of incomplete grades will be calculated the following semester. This calculation includes:

- Minimum 2.0 semester grade-point average (GPA) based on coursework completed at MATC during the semester
- Minimum 2.0 cumulative GPA based on all coursework completed at MATC
- Minimum 67% semester course completion rate (percentage of credits completed out of credits attempted at MATC for the semester being evaluated)
- Minimum 67% cumulative course completion rate (percentage of credits completed out of all credits attempted at MATC)

After the calculation, students will be placed on Good Academic Standing, Academic Warning, Academic Suspension, Academic Probation or Academic Probation With Monitored Academic Plan. See the Student Handbook for more information.

GRADUATION REQUIREMENTS AT MATC

To graduate from a program, you must complete all program requirements and have a **cumulative grade-point average of 2.0 or higher**.

Associate degree programs and technical diploma programs require that the final 25% of credits be taken at MATC.

If you were not continuously enrolled in your program (excluding summers) while attending MATC, the graduation requirements in effect at the time of your reenrollment or readmission into the program will be used to determine your eligibility for graduation.

Graduation application deadlines:

FOR FALL – October 31

FOR SPRING – March 31

SATISFACTORY ACADEMIC PROGRESS (SAP) – FOR FINANCIAL AID

Keeping up with school, so you don't risk losing your financial aid

Students receiving financial aid must make Satisfactory Academic Progress toward the completion of course requirements for an associate degree, technical diploma or eligible certificate. Students can only receive financial aid for classes that are required or prepare them for success (remedial courses) in their program area. To be considered in good standing at MATC, a student must meet all of the following requirements:

Grade-Point Average (GPA) Requirement

Students must maintain a cumulative GPA of 2.0 or better. Remedial credits will be considered in GPA. For repeat coursework, the highest grade received will be considered.

Completion Rate Percentage Requirement

A student must successfully complete **67% of all credits attempted**. That means you have to pass two-thirds of your classes. This is a cumulative percentage. Credits attempted are the total credits you are enrolled in (including remedial, repeated courses, withdrawals, incompletes and transfer credits) even if you did not receive aid for them.

Maximum Time Frame Requirement

Students must complete an associate degree, technical diploma or eligible certificate before 150% of credits required for graduation are attempted. For example: If an associate degree (two-year published length) requires 60 credits, a student must complete the degree before 90 credits have been attempted. Students may be deemed ineligible for aid at the point when they cannot mathematically complete their program within the 150% time frame.

Visit matc.edu (search Academic Standards) for more details.

ELIGIBILITY FOR LOANS AND STATE GRANTS

Before the federal financial aid census date, you need to be enrolled in at least six credit hours to be eligible for a loan and for state grants. In order for your loan to be processed, you must complete the online loan counseling and sign an online master promissory note at studentaid.gov. The federal financial aid date, census date and other important dates are listed on matc.edu (search Financial Aid.)

DEFERMENTS FOR COURSE FEES OR BOOKS

As a student receiving federal financial aid, you may be eligible for a deferment. This could cover the cost of books, fees, required uniforms or tools until your funds are available. You'll need approval from the Financial Aid office, and will sign a promissory note agreeing to pay these costs by a set date. A processed federal FAFSA Submission Summary is necessary for this option.

PREREQUISITES

Prerequisites are previous courses you need to have taken for success in a class. You'll need to complete the required prerequisites for a class before enrolling. Prerequisite courses are listed with the course description on selfservice.matc.edu.

Contact your advisor or the instructor of the course you wish to enroll in if you have any questions about prerequisites. This should be done before you enroll in the course.

STUDENT HANDBOOK AND STUDENT CODE OF CONDUCT

The Office of Student Life updates and distributes the MATC Student Handbook, which includes the Student Code of Conduct. MATC may impose disciplinary sanctions for violations of the Student Code of Conduct. Violations may include, but are not limited to, the following situations:

- Conduct that damages or destroys college property, or attempts to damage or destroy college property
- Failure to comply with federal, state, county and municipal laws or ordinances while participating in MATC activities or while present on MATC property
- Conduct that obstructs or impairs, or attempts to obstruct or impair, MATC's authorized activities, whether inside or outside a classroom, office, lecture hall, library, laboratory, auditorium, student center, or other place where an MATC-authorized activity is being held
- Conduct that endangers the safety or welfare of students, instructors, administrators, staff or visitors
- Unauthorized possession of college property or property of another member of the college community
- Making a false statement, either verbally or in writing, to any MATC employee or agent on an MATC related matter
- Conduct that engages in racial, religious, national origin, age, sexual or handicap harassment
- Acts of academic dishonesty

Academic dishonesty includes cheating, collaborating with another without the approval of the instructor, plagiarizing, stealing the work of another, falsifying records of work and assisting another student in any of the above.

Students judged to have violated the Student Code of Conduct are subject to disciplinary action, in accordance with due process procedures described in the Student Code of Conduct booklet provided by the Office of Judicial Affairs. The Student Code of Conduct is the definitive document on student conduct and the judicial system. See matc.edu or call 414-297-8177.

MATC STUDENT RECORDS INFORMATION

Family Educational Rights and Privacy Act (FERPA)

MATC complies with FERPA; the purpose of this act is to allow students to know what educational records are kept by the college, to provide students the right to inspect those records and ask for corrections if necessary, and to control the release of such information to those who are not involved in the educational process.

Under FERPA, directory information is made available to anyone who requests it unless you specifically ask that this not be done. To block directory information, the request must be made in the Registrar's office at the Downtown Milwaukee Campus. Contact the Registrar's office to complete the necessary paperwork. MATC considers directory information to be only the following: name; major field of study; dates of attendance; full-time/part-time status; degrees, technical diplomas or certificates awarded; and participation in officially recognized activities and sports. MATC will not provide information regarding time and location of a student's classes, and does not provide student or instructor home addresses and/or telephone numbers.

Under FERPA, personally identifiable information in your education record will not be released or disclosed unless you consent to such a release. However, there are exceptions under FERPA that authorize disclosure without your consent. One exception is disclosure to school officials with legitimate educational interests. This typically means an official needs to review an education record to fulfill his or her professional responsibility. Upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

FERPA allows the release of education records without the consent of the student or parents to authorized representatives of the state attorney general's office for law enforcement purposes.

FERPA permits disclosure to an alleged victim of either a crime of violence or of a nonforcible sex offense the final results of any disciplinary action taken against an alleged perpetrator.

For more information related to educational records or the release of your records, please call 414-297-6824.



RESOURCES FOR SUCCESS

Academic Support

SUPPORTED COURSES

MATC believes you can succeed in college — regardless of your ACT, high school grade-point average or your passing GED score. When you start at MATC, you'll be registered in college-level courses with extra supports if you need them. The college will review your previous academic records to see if you may need help such as extra hours of instruction, tutoring, homework help or lab work. Here is a listing of some of the academic services available to students.

STUDENT ACCOMMODATION SERVICES

Student Accommodation Services (SAS) ensures that students with disabilities have equal opportunities and access to all courses, programs and activities offered at MATC. SAS offers a variety of services to help students, including an emotional support dog named Pepper (above).

Prospective students with disabilities should contact Transition Services:

Downtown Milwaukee Campus
matc.edu (search SAS)
414-297-7839

VETERANS SERVICES (MILITARY EDUCATION SUPPORT OFFICE – MESO)

We proudly recognize recipients of the GI Bill. If you plan to take advantage of federal or state military educational benefits, paperwork should be submitted prior to the start of each semester. We handle all certifying and processing of educational benefits at the Downtown Milwaukee Campus.

For efficiency, please contact the proper office — all military service, veterans and dependents educational benefits are processed in the MESO office only. Keep in mind you may be eligible for other types of financial aid in addition to VA benefits. And, MATC offers eligible student veterans and current military service members priority registration for each term in keeping with state law.

Contact

meso@matc.edu
414-297-8363

OFFICE OF BILINGUAL EDUCATION

If your first language is not English, or if you are fluent in English and Spanish or English and Hmong, MATC offers bilingual programs and services to help you reach your academic and personal goals.

MATC can help you enroll in a degree or diploma program, and more. Bilingual services are offered at MATC campuses as well as community-based organizations.

The Office of Bilingual Education provides the following ongoing services to bilingual students:

- Test proctoring
- Admission screening
- Program information
- Financial aid information, advising and referral
- Counseling referrals
- Career exploration
- Registration assistance
- Student advocacy
- Case management
- Tutorial support

For more information about these services call 414-297-8882. For English as a Second Language/English Language Learner programs, see Community Education on page 314.



ACADEMIC ADVISING

After you're admitted, an MATC Pathway advisor is one of your first contacts to help you start your journey to your diploma or degree. A Pathway advisor will help you determine what classes you should take first and explain more about your program of study.

TUTORING SERVICES AND ACADEMIC SUPPORT CENTERS

Academic Support Centers (ASC) are open to all MATC students and include assistance in computer applications, course assignments, online use, math, science, social sciences, study skills, and writing and tutoring services. For more information, visit matc.edu (search MATC ASC.)

- **Computer Center** staff offer assistance in using a computer for course assignments
- **Math-Science Center** staff provide assistance in all math levels. They also offer assistance in science and Healthcare Pathway courses, use of computerized instructional resources and internet use.
- **Writing Center** staff offer assistance in course-related written assignments and projects, resume writing and research papers. Online writing help is available! Visit matc.edu (search MATC Online Tutoring.)
- **Academic Support Centers** at the Oak Creek, Mequon and West Allis campuses offer assistance and tutoring in a broad variety of subjects including programs offered at only these locations.

Tutoring is free to all MATC college students. Services include walk-in tutoring, group tutoring, in-class tutoring and online tutoring. Tutoring is offered based on the needs of students and tutor availability.

MATC LIBRARIES

All four campus libraries offer an array of resources and services, including great spaces to study and technology loans, such as Chromebooks and hot spots as available.

Ask a Librarian service

answers.matc.edu or by texting 414-937-5379



RESOURCES FOR SUCCESS

Personal Support

Students at MATC experience an engaging and empowering education characterized by:

- A welcoming learning environment that fosters personal growth and prepares students for the future.
- A warm and supportive community for every person, regardless of religious belief, sexual orientation, gender identity, ability, or racial or ethnic background.
- Supportive, personalized services designed to help students succeed.
- Innovative technology that inspires students' creativity.
- Real-world experiences that foster students' grit and their desire to stay in school.
- Meaningful friendships with other students and strong connections with caring, compassionate, and encouraging faculty and staff.
- A fun, culturally sensitive and inclusive campus community that promotes a sense of belonging and school pride.

OFFICE OF STUDENT LIFE

The Office of Student Life is dedicated to serving all areas beyond the classroom! This includes:

- Educational, recreational and cultural programming
- Student organizations
- Student housing information, including the amenity-rich, affordable Westtown Green student apartments near the Downtown Milwaukee Campus. matc.edu/westtowngreen
- Honor recognition
- Problem-solving
- Student advocacy and student development

If you have college-related concerns or problems, you are encouraged to seek help from the Office of Student Life.

Contact

matc.edu (search Student Life)

Or, engage with student life at matc.campuslabs.com/engage

Office Locations

Downtown Milwaukee Campus, 414-297-6229

Mequon Campus, 262-238-2218

Oak Creek Campus, 414-571-4715

West Allis Campus, 414-456-5304

STUDENT RESOURCE CENTER

The MATC Student Resource Center connects students to campus and community resources that help them overcome barriers that interfere with their academic success.

Contact

Student Resource Center
Downtown Milwaukee Campus, S Building, Room S215
matc.edu (search Student Resource Center)
studentresources@matc.edu
414-297-6199

CHILD CARE SERVICES

Affordable, reliable child care can be a challenge for students. That's why MATC offers reliable, quality child care through the MATC Children's Centers. Children learn in an environment that encourage emotional, social, intellectual and physical development. All locations are nationally accredited and hold a five-star quality rating from the state of Wisconsin. Flexible scheduling is available, but children must be registered prior to attending children's centers. MATC is approved for payment by several funding agencies.

Locations

Downtown Milwaukee Campus, Room H240, 414-297-7880
Mequon Campus, Room A216, 262-238-2450
Oak Creek Campus, Room B124, 414-571-4690
West Allis Campus, 865 South 72nd Street, 414-456-5419

MENTAL HEALTH COUNSELING SERVICES

We know the importance of maintaining good mental health and are here to help. The licensed professional counselors in Counseling and Psychological Services provide short-term support to students with mental health needs and concerns. All services are free, confidential and tailored to fit each student's needs.

Contact

matc.edu (search Mental Health)
counseling@matc.edu

OFFICE OF MULTICULTURAL STUDENT SERVICES

Working to leverage cultural strengths to help overcome the challenges faced by students of diverse backgrounds, the Office of Multicultural Student Services provides support services, case management, advocacy and intervention, and academic advising. It's made up of four main offices:

1. African American Student Services
2. American Indian Student Services
3. Asian American Student Services
4. Hispanic Student Services

Advisors serve as advocates for students of color from diverse backgrounds and work to keep students enrolled.

Contact

Downtown Milwaukee Campus
matc.edu (search Multicultural Student Services)
414-297-6968

VETERANS RESOURCE CENTER

We recognize that military-affiliated students have unique needs on a college campus, and staff members in the Veterans Resource Center ease the transition from the military to college. The Veterans Resource Center on the Downtown Milwaukee Campus is where military-affiliated students can get information about veteran resources, use computers, do homework or socialize. Veterans, those currently serving in the military, and dependents and spouses receiving benefits can contact Veterans Specialist Wesley Walker, walkerw9@matc.edu, 414-297-6835.

STUDENT HOUSING

Live near the Downtown Milwaukee Campus and vibrant Deer District! Westown Green, a unit-style student apartment building, offers amenities that include fitness center, computer lab, study lounges and club room. Developed and owned by J. Jeffers & Co. and operated by Founders 3 Real Estate Services, Westown Green is a preferred housing partner of MATC.

Contact

925 North Dr. Martin Luther King Jr. Drive
matc.edu/westowngreen



FOOD AND BOOKS

MATC's convenient student services include the Campus Meal Plan for on-campus dining and the Bookstore for ordering books and supplies. Details can be found at matc.edu and search Meal Plan or Bookstore.

STORMER PASS: YOUR STUDENT ID

The MATC Stormer Pass is the official identification card for students at MATC. It provides an easy, safe and convenient method to make purchases and use services on campus. While off campus, use your Stormer Pass as your U.S. Bank card when you open a U.S. Bank checking account.

Contact

Office of Student Life, matc.edu, stormerpass@matc.edu,
414-297-6229 or U.S. Bank at 1-888-713-9299



RESOURCES FOR SUCCESS

Student Activities

To see what's happening on campus, visit matc.campuslabs.com and log in with your MATC email and password. There are tons of opportunities for students to participate in fun and fulfilling extracurriculars. Here are a few of the amazing opportunities at MATC.

ATHLETIC TEAMS – THE STORMERS

MATC features these women's and men's varsity athletic teams:

- Baseball (Men's)
- Basketball (Men's and Women's)
- Soccer (Men's and Women's)
- Softball (Women's)
- Tennis (Men's and Women's)
- Volleyball (Women's)

Students on all of our sports teams learn and practice skills that serve them throughout their lives. MATC sports teams are members of the National Junior College Athletic Association and the North Central Community College Conference. For information about athletic opportunities and the schedule of games and matches, visit matcstormers.com.





STUDENT ORGANIZATIONS

With more than 35 student organizations and clubs to choose from, you're sure to find a group that's right for you at MATC. Featuring academic, professional, service, cultural and special-interest organizations, MATC values providing enriching and exciting opportunities for students. Information about registered student organizations, or how to start a new one, is available from the Office of Student Life at each MATC campus. For a complete listing of organizations, see matc.campuslabs.com/engage.

STUDENT GOVERNMENT

Do you want to make an impact as a student leader? Participating in Student Government is a great opportunity to contribute to MATC while developing your skills in communication, organization and leadership. Through Student Government, all MATC students are represented by elected student representatives. Officially recognized as the voice of the student body by the administration of MATC, Student Government makes recommendations to the director of Student Life regarding student- or college-related issues. To become involved, call the Student Life office at your campus.



NEWSPAPER

Interested in photography, art and design, advertising or writing? Check out the college's student newspaper, MATC Times.

Contact

matctimes@gmail.com

DEVELOPMENT EVENTS

These programs and events present information you can apply to life on campus, as well as your overall personal development. For a schedule of events, see matc.campuslabs.com/engage.

DIVERSITY PROGRAMS

Working with campus student organizations, the Office of Student Life brings together students from a broad range of ethnic and cultural groups. This office plans, implements and coordinates social and cultural extracurricular events, including student entertainment programs, in collaboration with student organizations. For a schedule, see matc.campuslabs.com/engage.



HONOR SOCIETIES

Information on eligibility requirements for membership in various honor recognition programs is available through the Office of Student Life. Ceremonies recognizing scholastic achievement are conducted by this office during the year. Visit matc.edu and search Honor Societies.



CONFLICT RESOLUTION

Problem-Solving on Campus

Process to Share Complaints

The college's formal process for students, alumni, community members, parents and staff to share a complaint is as follows:

1. Complete the online form (available in English and in Spanish). Go to matc.edu and search Complaints. (Complaints must be filed within 30 days of occurrence.)
2. You will receive an automated response that the complaint has been received and is under review.
3. Upon conclusion, and after investigating the nature of the complaint/compliment, the appropriate MATC staff will respond in writing within 10 college business days. The response will include a written description of the complaint/compliment, including all pertinent details and a statement regarding action taken.

Please note that you follow the same process to share a compliment.

Office of the Ombudsperson

This office offers an alternate channel for students to informally raise and address college-related concerns, issues or conflicts in a confidential, independent, safe and nonbiased space.

The ombudsperson (or ombuds) serves as a resource for students by offering off-the-record conversations for those seeking advice and guidance on options and resolution strategies regarding their situations. The ombuds will not make decisions for students, but rather will equip, coach and empower students to make their own decisions and/or advocate on their own behalf. Communication with this office does not put MATC on notice.

The ombuds office is not part of any formal process at the college and does not replace or circumvent any existing channels at the college, such as filing a formal complaint. The ombuds' intent is to supplement these channels by offering another viable option for problem-solving. The ombuds is impartial and does not advocate for or represent any individual, group or the college, but advocates for fairness, respect and equality.

Contact

matc.edu (search Ombuds)
ombuds@matc.edu (please be aware that email is not a secure or confidential method of communication).
414-297-6294

BUSINESS & MANAGEMENT

Whether your goal is to earn a degree, transfer to a four-year college, or start a business or career, the Business & Management Pathway, along with industry-experienced faculty and staff, will prepare you to lead, manage, supervise and influence in business and finance. According to the 2019 U.S. Bureau of Labor Statistics report, employment in the financial sector is projected to grow 7% by 2028. At MATC, we offer dynamic instruction and experiential learning. And, MATC allows you to earn certificates and technical diplomas on your way to completing a degree, as you gain real-world industry work experience, and join a community of business and financial professionals.

Pathway Offices

Downtown Milwaukee Campus, Main Building, Room M386, **414-297-8903**

Mequon Campus, Room A108

Oak Creek Campus, Room A121

West Allis Campus, Room 103, **414-456-5323**

leadpathway@matc.edu



Accounting AD
Accounting Assistant TD
Accounting Bookkeeper Trainee C
Administrative Support Specialist TD
Banking and Financial Services AD
Bilingual Clerical and Customer Support Clerk TD
Bilingual Office Assistant TD
Business Analyst AD
Business Management AD
Business Management TD
Business Management Trainee C
Digital Marketing and Integrated Communication TD
Entrepreneurship C
Entrepreneurship TD
Event Management AD
Financial Services TD
Financial Services Trainee C

Foundations of Lodging and Hospitality Management TD
Hospitality Management AD
Human Resources AD
Leadership Development AD
Marketing AD
Medical Administrative Specialist TD
Office Technology Assistant TD
Property Management C
Real Estate Broker Associate TD
Real Estate Salesperson C
Real Estate AD
Sales and Customer Experience TD
Special Event Management TD
Supply Chain Management AD
Supply Management TD
Transportation-Logistics TD



AD Associate Degree program
TD Technical Diploma program
C Certificate program

Accounting

PROGRAM CODE: 10-101-1



Associate Degree



Location: Downtown Milwaukee Campus, Oak Creek Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Designed to provide fundamental accounting skills in a range of applications, this program is a good fit for students who like to work with numbers. You will learn about financial, cost, tax, payroll, governmental, nonprofit and computerized accounting.

Career Outlook

Qualified accounting applicants continue to be in demand.

Program Learning Outcomes

- Process financial transactions throughout the accounting cycle.
- Analyze financial and business information to support planning and decision-making.
- Perform payroll preparation, reporting and analysis tasks.
- Perform cost accounting preparation, reporting and analysis tasks.
- Perform individual and/or organizational tax accounting preparation, reporting and analysis tasks.
- Identify internal controls to reduce risk.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
ACCTG-111 Accounting 1 ^.....	4
ACCTG-121 Income Taxation ^.....	4
ACCTG-122 Accounting Software Applications ^.....	3
MATH-107 College Mathematics ‡ ^..... (or) Any 200-level MATH course	3
ACCTG-113 Accounting 2 ‡ ^.....	4
ACCTG-130 QuickBooks Online ‡ ^.....	3
ACCTG-142 Payroll Accounting ^.....	2
BADM-165 Legal Environment of Business ^.....	3
ENG-195 Written Communication ‡ ^..... (or) Any 200-level ENG course	3
ACCTG-116 Intermediate Accounting ‡.....	4
ACCTG-126 Accounting for Managers.....	3
ECON-195 Economics..... (or) Any 200-level ECON course	3
ENG-197 Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
FIN-180 Corporate Financial Management ‡.....	3
ACCTG-145 Forensic Accounting ‡..... (or) ACCTG-140 Accounting for Governmental and Nonprofit Entities ‡	3
ACCTG-150 Accounting Practice With a Systems Approach ‡.....	3
ACCTG-155 Applied Individual Income Tax ‡..... (or) ACCTG-140 Accounting for Governmental and Nonprofit Entities ‡	3
FIN-120 Introduction to Money, Banking and Financial Markets ‡.....	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Accounting Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Accounting Assistant

PROGRAM CODE: 31-101-1



Technical Diploma



COURSE	CREDITS
ACCTG-111 Accounting 1 ^.....	4
ACCTG-122 Accounting Software Applications ^.....	3
BADM-165 Legal Environment of Business.....	3
MATH-107 College Mathematics ‡..... (or) Any 200-level MATH course	3
ACCTG-113 Accounting 2 ‡.....	4
ACCTG-121 Income Taxation.....	4
ACCTG-130 Computerized Accounting with QuickBooks Online‡ ^.....	3
ACCTG-142 Payroll Accounting.....	2
ENG-195 Written Communication ‡..... (or) Any 200-level ENG course	3

Location: Downtown Milwaukee Campus, Oak Creek Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for entry-level positions in the accounting field. Develop competence in financial, managerial, tax and payroll accounting.

Career Outlook

Qualified accounting applicants continue to be in demand. Employment opportunities exist in banking, business and industry, government offices, and nonprofit organizations.

Program Learning Outcomes

- Process financial transactions throughout the accounting cycle.
- Analyze basic financial and business information to support planning and decision-making.
- Perform payroll preparation, reporting and analysis tasks.

CREDITS

Total credits needed to complete this diploma

29

‡ Prerequisite required.

^ Counts toward earning the Accounting Bookkeeper Trainee certificate. Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Accounting Bookkeeper Trainee

PROGRAM CODE: 61-101-1



Certificate



COURSE

ACCTG-111	Accounting 1	4
ACCTG-122	Accounting Software Applications	3
ACCTG-130	QuickBooks Online ‡	3

CREDITS

CREDITS

Total credits needed to complete this certificate

10

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Oak Creek Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

This certificate prepares you to enter the bookkeeping/accounting field in an entry-level capacity. Through the program's three courses, students develop competence in financial accounting with an emphasis on accounting software, spreadsheets and databases.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Administrative Support Specialist

PROGRAM CODE: 31-106-11



Technical Diploma



Location: West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Get ready to take on key responsibilities that include operating new office technologies, performing and coordinating an office's administrative activities, and storing and integrating information for dissemination to staff and clients. Courses are offered in a variety of formats, which may include traditional classroom instruction and an online component.

Career Outlook

The employment outlook is strong. Opportunities are best for candidates with extensive knowledge of computer software applications.

Program Learning Outcomes

- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform routine administrative procedures.
- Manage administrative projects.
- Maintain internal and external relationships.
- Model professionalism in the workplace.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡ (or) Any 200-level ENG or SPEECH course	3
OFTECH-101 Office Technologies 1 ^.....	3
OFTECH-103 Keyboard and Keypad ^	1
OFTECH-122 Business English Essentials ^	3
OFTECH-119 Information Management ^.....	3
OFTECH-182 Customer Service Skills ^	3
OFTECH-104 Budgeting Basics for Support Personnel ^	3
OFTECH-133 Business Document Production 1 ‡ ^	3
OFTECH-184 MS Office: Word, Excel, Access and PowerPoint ‡ ^.....	3
OFTECH-111 Workplace Communications for Support Personnel	3
OFTECH-153 Collaboration Tools	1
OFTECH-165 Administrative Office Procedures 1 ‡ ^	3
OFTECH-123 Proofreading and Editing ‡	3
OFTECH-137 Business Document Production 2 ‡	3
OFTECH-170 Meeting and Event Planning for Support Personnel	3
OFTECH-185 MS Office – Intermediate ‡	3
OFTECH-196 Administrative Professional Internship ‡ ^	1

CREDITS

Total credits needed to complete this diploma

45

‡ Prerequisite required.

^ Counts toward earning the Office Technology Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Banking and Financial Services

PROGRAM CODE: 10-114-3



Associate Degree



COURSE	CREDITS
ACCTG-111 Accounting 1 ^.....	4
ACCTG-122 Accounting Software Applications ^.....	3
BADM-165 Legal Environment of Business ^.....	3
ENG-195 Written Communication ‡ ^..... (or) ENG-201 English 1 ‡	3
FIN-110 Principles of Banking ^.....	3
ACCTG-113 Accounting 2 ‡.....	4
BADM-134 Business Organization and Management ^.....	3
FIN-120 Introduction to Money, Banking and Financial Markets ‡ ^.....	3
MATH-123 Math With Business Applications ‡ ^..... (or) Any 200-level MATH course	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
ACCTG-121 Income Taxation.....	4
ACCTG-126 Accounting for Managers.....	3
ECON-195 Economics..... (or) Any 200-level ECON course	3
ENG-197 Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
FIN-170 Credit Management ^.....	3
ACCTG-130 QuickBooks Online ‡.....	3
ACCTG-145 Forensic Accounting ‡..... (or) ACCTG-140 Accounting for Governmental and Nonprofit Entities ‡ (or) ACCTG-155 Applied Individual Income Tax ‡	3
FIN-122 Investment Principles ‡ ^.....	3
FIN-180 Corporate Financial Management ‡.....	3

Location: Downtown Milwaukee Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn accounting and financial principles used in banks, credit unions, insurance and consumer finance companies, and corporate finance departments.

Career Outlook

Graduates will have a solid foundation for a range of career opportunities within the industry, including personal banker, credit specialist, insurance sales agent and loan specialist.

Program Learning Outcomes

- Create reports.
- Analyze financial data.
- Analyze investments.
- Sell financial products and services.

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Financial Services technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Bilingual Clerical and Customer Support Clerk

PROGRAM CODE: 30-106-11



Technical Diploma



COURSE	CREDITS
OFTECH-101 Office Technologies 1	3
OFTECH-103 Keyboard and Keypad.....	1
OFTECH-104 Budgeting Basics for Support Personnel.....	3
OFTECH-183 Bilingual Customer Service Skills	3

CREDITS

Total credits needed to complete this diploma

10

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: West Allis Campus, MATC Education Center at Walker's Square

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Offers wonderful training and confidence to the student when looking for a job. The student will acquire not only computer skills, but also customer service and math/budgeting skills.

Career Outlook

Students completing this certificate gain a competitive advantage when applying for positions in a wide variety of office settings. Completers can perform exceptional customer service and a full range of clerical duties, including entering data into computer files, word-processing and preparing budgets.

Program Learning Outcomes

- Perform basic knowledge of Office 365 (word processing), Excel (spreadsheets) and PowerPoint (presentations).
- Use effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform touch keying of the alphabetic keys.
- Perform touch keying of the numeric and symbol keys.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Bilingual Office Assistant

PROGRAM CODE: 31-106-6



Technical Diploma



COURSE	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
OFTECH-101 Office Technologies 1	3
OFTECH-103 Keyboard and Keypad	1
OFTECH-119 Information Management	3
OFTECH-183 Bilingual Customer Service Skills	3
FLANG-123 Intermediate Spanish ‡ * (or) FLANG-218 Spanish 5: Conversation, Grammar and Current Topics ‡	3
OFTECH-104 Budgeting Basics for Support Personnel.....	3
OFTECH-122 Business English Essentials.....	3
OFTECH-133 Business Document Production 1 ‡.....	3
OFTECH-165 Administrative Office Procedures ‡	3
OFTECH-184 MS Office: Word, Excel, Access and PowerPoint ‡	3
OFTECH-170 Meeting and Event Planning for Support Personnel	3
OFTECH-190 Bilingual Office Assistant Internship ‡	1

Location: West Allis Campus

Start Dates: August, January and March

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

(This program is for bilingual students)

Students fluent in English and a second language will be prepared for bilingual office positions after completing this program. You will use Microsoft software to produce documents in both languages, and you will use videoconferencing, the internet and other technologies. All courses, except foreign language instruction, are taught in English. Courses are offered in a variety of formats including online and blended, which may include traditional classroom instruction and an online component.

Career Outlook

There is a strong need for bilingual office workers to serve diverse communities.

Program Learning Outcomes

- Perform accurate workplace communications.
- Use technology skills for business tasks.
- Perform routine office procedures.
- Demonstrate professionalism and effective workplace relations.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

35

‡ Prerequisite required.

* Another foreign language course may be substituted for this course. The student must earn a minimum 2.5 GPA in the program's foreign language coursework.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Business Analyst

PROGRAM CODE: 10-102-1



Associate Degree



Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn techniques to gather and analyze information and business requirements, integrating best practices and relevant technologies. As a graduate, you will be prepared to function as a liaison with an organization's stakeholders, such as IT and subject matter experts, in order to understand policies, structure and operation.

Career Outlook

Opportunities exist within a variety of industries, including healthcare, manufacturing, insurance and finance.

Program Learning Outcomes

- Perform elicitation, validation and analysis of requirements to meet a business need.
- Build relationships with stakeholders.
- Demonstrate leadership throughout business analysis efforts.
- Demonstrate professional communication in a business environment.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
BADM-106 MS Office for Business Applications	3
BADM-134 Business Organization and Management.....	3
BNLST-121 Business Analyst Planning and Monitoring	3
BNLST-122 Business Analyst Essentials	3
MATH-123 Math With Business Applications ‡.....	3
(or) Any 200-level MATH course	
BADM-104 Business Statistics ‡	3
BNLST-123 Requirements of Life Cycle Management	3
BNLST-124 Elicitation Techniques.....	3
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
LDRSHP-189 Team Building and Problem-Solving	3
BNLST-127 Requirements Analysis and Design.....	3
ENG-197 Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
ITDEV-149 Data Reporting	3
LDRSHP-190 Leadership Development	3
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
BNLST-135 Business Analyst Strategy Analysis	3
BNLST-136 Business Analyst Solution Evaluation ‡.....	3
BNLST-137 Business Analyst Internship ‡.....	1
BNLST-138 Business Analyst Capstone.....	3
QETECH-188 Project Management	3
SOCSCI-103 Think Critically and Creatively	3
(or) Any 200-level SOCSCI course	

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Business Management

PROGRAM CODE: 10-102-3



Associate Degree



Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Attain a strong foundation in a range of areas including supervision, business communications, office technologies, human resources and marketing. Students have the opportunity to select courses with a career-ready emphasis or with a four-year college/university transfer emphasis.

Career Outlook

Opportunities exist within different types of firms, as well as operating your own business.

Program Learning Outcomes

- Plan the operations of a business across functional areas.
- Organize resources to achieve the goals of the organization.
- Direct individuals and/or processes to meet organizational goals.
- Control business processes.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
BADM-106 MS Office for Business Applications ^	3
BADM-110 Business Communications With Technology ^..... (or) ENG-208 Technical Communications ‡ (or) ENG-202 English 2 ‡*	3
BADM-134 Business Organization and Management ^	3
ENG-195 Written Communication ‡ ^	3
(or) ENG-201 English 1 ‡*	
ACCTG-110 Financial Accounting ^	3
(or) ACCTG-111 Accounting 1	
BADM-192 Risk Management and Insurance ^	3
ENG-197 Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course*	
MKTG-102 Marketing Principles.....	3
BADM-104 Business Statistics ‡	3
BADM-145 Small Business Management ‡ ^	3
(or) LOGMGT-146 Operations Management	
BADM-165 Legal Environment of Business.....	3
ECON-195 Economics.....	3
(or) ECON-202 Principles of Microeconomics (or) Any 200-level ECON course*	
MATH-107 College Mathematics ‡ ^	3
(or) Any 200-level MATH course*	
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level SOCSCI course*	
BADM-120 Business Analysis ‡ ^	3
BADM-155 Management Principles ‡	3
ELECTIVES (Six credits)	6
MATH-123 Math With Business Applications ‡.....	3
(or) Any 200-level MATH course*	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course*	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Business Management technical diploma.

* Students seeking transfer to a four-year college/university should take 200-level courses.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Business Management

PROGRAM CODE: 31-102-3



Technical Diploma



Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Move forward toward your career goals with a strong foundation of business knowledge, including management, business communications, office technologies, accounting and risk management.

Career Outlook

Graduates possess skills to begin a career in many business settings. Self-employed business owners also will profit from this program.

Program Learning Outcomes

- Plan the operations of a business across functional areas.
- Organize resources to achieve the goals of the organization.
- Direct individuals and/or processes to meet organizational goals.
- Control business processes.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
ACCTG-110 Financial Accounting ^.....	3
(or) ACCTG-111 Accounting 1	
BADM-106 MS Office for Business Applications ^	3
BADM-134 Business Organization and Management ^	3
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
BADM-110 Business Communications With Technology	3
(or) ENG-208 Technical Communications ‡	
(or) ENG-202 English 2 ‡	
BADM-120 Business Analysis ‡.....	3
BADM-145 Small Business Management ‡.....	3
BADM-192 Risk Management and Insurance ^	3
MATH-107 College Mathematics ‡.....	3
(or) Any 200-level MATH course	

CREDITS

Total credits needed to complete this diploma

27

‡ Prerequisite required.

^ Counts toward earning the Business Management Trainee certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Business Management Trainee

PROGRAM CODE: 61-102-1



Certificate



COURSE	CREDITS
ACCTG-110 Financial Accounting	3
BADM-106 MS Office for Business Applications.....	3
BADM-134 Business Organization and Management.....	3
BADM-192 Risk Management and Insurance.....	3

CREDITS

Total credits needed to complete this certificate

12

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

Get a strong start to enter the job market with knowledge of key components of business, including the fundamentals of accounting, management and insurance concepts.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Digital Marketing and Integrated Communications Technology

PROGRAM CODE: 31-104-9



Technical Diploma



COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
MKTG-102	Marketing Principles 3
MKTG-118	Social Media Marketing 3
MKTG-165	Digital Marketing 3
MKTG-173	Marketing Research/Analytics 3
MKTG-125	Advertising: Brands and Campaigns 3
MKTG-134	Integrated Marketing Communications 3
MKTG-144	Client Services 3
MKTG-198	Visual Media Marketing 3

CREDITS
Total credits needed to complete this diploma **27**

‡ Prerequisite required.
All courses in this program count toward the Marketing associate degree.
Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Online Campus
Start Dates: August and January
Admission Requirement: High school diploma or GED
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Develop a broad cross-section of knowledge, skills and abilities in digital marketing, advertising, marketing research, analytics, social media, client services and integrated marketing communications.

Career Outlook

This program is a Department of Labor “Bright Outlook Career” with expected growth of 10% over the next 10 years.

Program Learning Outcomes

- Develop strategies to anticipate and satisfy market needs.
- Promote products, services, images and/or ideas to achieve a desired outcome.
- Evaluate information through the market research process to make business decisions.
- Prepare integrated content strategies.
- Utilize various digital marketing tools and analytics.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Entrepreneurship

PROGRAM CODE: 61-145-1



Certificate



COURSE

ENTREP-101	Introduction to Entrepreneurship	3
ENTREP-104	Business Plan	3

CREDITS

CREDITS	6
Total credits needed to complete this certificate	

Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Online Campus
Start Dates: August, January and June
Admission Requirement: High school diploma or GED

Program Description

The courses in this program are especially geared to students interested in starting their own, or assisting with, a small or family-run business. Topics covered include customer discovery, Lean Startup methods and traditional business plans. The courses are offered in online, accelerated, blended formats. MATC's Entrepreneurship Center is on the Downtown Milwaukee Campus in Room M319.

Some certificates can be earned while completing associate degrees and/ or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Entrepreneurship

PROGRAM CODE: 31-145-2



Technical Diploma



Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program will prepare you to unite your passion for your work with a viable business model. It also benefits those with a desire to own and operate their own business and is useful for individuals seeking new skills in their current jobs, career advancement or a job change. MATC's Entrepreneurship Center is on the Downtown Milwaukee Campus in Room M319.

Career Outlook

As the global economy shifts to a leaner, faster environment, opportunities will be especially favorable for entrepreneurs.

Program Learning Outcomes

- Demonstrate an entrepreneurial mindset.
- Develop a business canvas and/or plan.
- Outline business operational plan.
- Develop a business marketing plan.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
ECON-195 Economics.....	3
(or) ECON-219 Personal Finance and Consumer Economics	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
ENTREP-101 Introduction to Entrepreneurship ^.....	3
ENTREP-102 New Product Development	3
ENTREP-104 Business Plan ^	3
ACCTG-102 Basic Office Accounting	3
ENTREP-103 Strategic Business Communication 1	3
ENTREP-105 Strategic Business Communication 2 ‡	3
MKTG-102 Marketing Principles.....	3
SOCSCI-197 Contemporary American Society	3

CREDITS

Total credits needed to complete this diploma

30

‡ Prerequisite required.

^ Counts toward earning the Entrepreneurship certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Event Management

PROGRAM CODE: 10-109-6



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Build a dynamic career in event management, meeting planning, special event marketing, corporate and convention sales, or hotel marketing.

Career Outlook

Festivals and events are among the key segments of the hospitality/tourism industry. In addition, many associations and corporations hire people to plan and conduct meetings.

Program Learning Outcomes

- Apply project management strategies to an event.
- Manage financial resources.
- Design an event.
- Promote an event.
- Manage risk-management plan.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
BADM-106 MS Office for Business Applications ^	3
ENG-195 Written Communication ‡ ^	3
(or) ENG-201 English 1 ‡	
GEOSCI-112 Principles of Sustainability	3
(or) Any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	
HOTEL-122 Basic Hospitality Accounting ^	3
HOTEL-135 Hospitality Professional Service and Development	3
MEET-151 Introduction to Hospitality/Tourism ^	3
HOTEL-105 Hospitality Marketing, Sales and Revenue Strategy ^	3
HOTEL-124 Managerial Accounting for the Hospitality Industry	3
HOTEL-127 Fundamentals of Meetings and Special Events ^	3
MEET-116 Fundamentals of Green Meetings ^	2
MEET-180 Registration and Housing Logistics ‡ ^	3
MEET-181 Exposition and Special Event Management ‡ ^	3
ECON-195 Economics	3
(or) ECON-219 Personal Finance and Consumer Economics	
ENG-196 Oral/Interpersonal Communication ‡	3
(or) Any 200-level ENG or SPEECH course	
HOTEL-133 Supervision in the Hospitality Industry	3
HOTEL-140 Food and Beverage Operations	3
MEET-184 Risk Management and Crisis Planning ‡	3
HOTEL-130 Internship - Hotel/Meeting Management ‡	1
MATH-134 Mathematical Reasoning ^	3
(or) Any 200-level MATH course	
MEET-178 Meeting and Convention Planning ‡	3
PSYCH-199 Psychology of Human Relations	3
(or) Any 200-level PSYCH course	
SOCSCI-197 Contemporary American Society	3
(or) SOCSCI-200 Introduction to Ethical Issues	

CREDITS

Total credits needed to complete this degree

63

‡ Prerequisite required.

^ Counts toward earning the Special Event Management technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Financial Services

PROGRAM CODE: 31-114-3



Technical Diploma



COURSE		CREDITS
ACCTG-111	Accounting 1 ^.....	4
BADM-134	Business Organization and Management ^	3
BADM-165	Legal Environment of Business.....	3
FIN-110	Principles of Banking.....	3
MATH-123	Math With Business Applications ‡..... (or) Any 200-level MATH course	3
ACCTG-122	Accounting Software Applications ^.....	3
ENG-195	Written Communication ‡..... (or) ENG-201 English 1 ‡	3
FIN-120	Introduction to Money, Banking and Financial Markets ‡ ^.....	3
FIN-122	Investment Principles ‡	3
FIN-170	Credit Management.....	3

Location: Downtown Milwaukee Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Begin your business career by learning accounting and financial principles for entry-level employment in banks, credit unions, insurance and consumer finance companies, and corporate finance departments.

Career Outlook

Program graduates will have a solid foundation for a range of career opportunities within the industry.

Program Learning Outcomes

- Create reports.
- Analyze investments.
- Sell financial products and services.

CREDITS

Total credits needed to complete this diploma

31

‡ Prerequisite required.

^ Counts toward earning the Financial Services Trainee certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Financial Services Trainee

PROGRAM CODE: 61-114-1



Certificate



COURSE	CREDITS
ACCTG-111 Accounting 1	4
ACCTG-122 Accounting Software Applications	3
BADM-134 Business Organization and Management.....	3
FIN-120 Introduction to Money, Banking and Financial Markets ‡..	3

CREDITS

Total credits needed to complete this certificate

13

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

Attain the solid foundation in banking and finance concepts needed to enter the financial services industry.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Foundations of Lodging and Hospitality Management

PROGRAM CODE: 31-109-5



Technical Diploma



COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
HOTEL-110	Front Office Procedures and Management 3
HOTEL-122	Basic Hospitality Accounting 3
HOTEL-135	Hospitality Professional Service and Development 3
MEET-151	Introduction to Hospitality/Tourism 3
HOTEL-105	Hospitality Marketing, Sales and Revenue Strategy 3
HOTEL-112	Front Office Computerized Procedures ‡ 3
HOTEL-117	Hospitality Law and Liability 3
HOTEL-120	Building Operations and Security 3
HOTEL-127	Fundamentals of Meetings and Special Events 3
HOTEL-150	Housekeeping Operations 2

CREDITS
Total credits needed to complete this diploma **32**

‡ Prerequisite required.
Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus
Start Dates: August and January
Admission Requirement: High school diploma or GED
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Employment opportunities in this diverse industry can be competitive as more job candidates enter this field.

Career Outlook

Graduates possess skills to begin a career in many business settings. Self-employed business owners also will profit from this program.

Program Learning Outcomes

- Apply fundamentals to the operations within a hospitality organization.
- Demonstrate entry-level use of hospitality technology.
- Identify processes to meet organizational goals.
- Identify the various components that make up the hospitality industry.
- Identify resources used in the hospitality industry for problem solving.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Hospitality Management

PROGRAM CODE: 10-109-2



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

To enter the hotel/motel industry at mid-management or supervisory levels, you will attain the required skills and experience employers seek. Although this is a day program, selected courses are scheduled for evenings and weekends on a rotating basis.

Career Outlook

You will be prepared for employment in a vital segment of the nation's economy.

Program Learning Outcomes

- Plan the operations within a hospitality organization.
- Organize hospitality resources to achieve the goals of the organization.
- Direct individuals and/or processes to meet organizational goals.
- Control hospitality processes/procedures.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
HOTEL-110	Front Office Procedures and Management ^ 3
HOTEL-122	Basic Hospitality Accounting ^ 3
HOTEL-135	Hospitality Professional Service and Development ^ 3
MEET-151	Introduction to Hospitality/Tourism ^ 3
HOTEL-105	Hospitality Marketing, Sales and Revenue Strategy ^ 3
HOTEL-112	Front Office Computerized Procedures ‡ ^ 3
HOTEL-120	Building Operations and Security ^ 3
HOTEL-124	Managerial Accounting for the Hospitality Industry ‡ 3
HOTEL-127	Fundamentals of Meetings and Special Events ^ 3
HOTEL-150	Housekeeping Operations ^ 2
GEOSCI-112	Principles of Sustainability 3 (or) BIOSCI-220 Introduction to Nutritional Science
HOTEL-117	Hospitality Law and Liability ^ 3
HOTEL-133	Supervision in the Hospitality Industry 3
MATH-134	Mathematical Reasoning 3 (or) Any 200-level MATH course
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
ECON-195	Economics 3 (or) Any 200-level ECON course
ENG-196	Oral/Interpersonal Communication ‡ 3 (or) Any 200-level ENG or SPEECH course
HOTEL-130	Internship - Hotel/Meeting Management ‡ 1
HOTEL-140	Food and Beverage Operations 3
SOCSCI-172	Introduction to Diversity Studies 3 (or) SOCSCI-200 Introduction to Ethical Issues

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Foundations of Lodging and Hospitality Management technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Human Resources

PROGRAM CODE: 10-116-1



Associate Degree



COURSE		CREDITS
BADM-106	MS Office for Business Applications	3
ENG-195	Written Communication ‡	3
	(or) Any 200-level ENG course	
HRMGT-133	Legal Issues and Employment Law	3
HRMGT-193	Human Resource Management	3
HRMGT-198	Business Ethics	3
BADM-134	Business Organization and Management	3
HRMGT-196	Recruiting and Selection	3
LDRSHP-195	Communication Strategies for Leaders	3
MATH-134	Mathematical Reasoning	3
	(or) Any 200-level MATH course	
PSYCH-199	Psychology of Human Relations	3
	(or) Any 200-level PSYCH course	
ACCTG-142	Payroll Accounting	2
ENG-197	Technical Reporting ‡	3
	(or) SPEECH-210 Conflict and Communication	
HRMGT-136	Safety in the Workplace	3
HRMGT-169	Diversity and Change Management	3
HRMGT-197	Employee Training and Development	3
LDRSHP-190	Leadership Development	3
HRMGT-124	Human Capital Analysis ‡	3
HRMGT-170	Employee Relations and Labor Relations	3
HRMGT-194	Fundamentals of Compensation	3
LOGMGT-105	Enterprise Resource Planning	3
SOCSCI-103	Think Critically and Creatively	3
	(or) Any 200-level SOCSCI course	

Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Gain entry-level skills in a variety of areas related to the human resources profession, including recruitment, selection, training and development, employee and labor relations, and compensation and benefits.

Career Outlook

New legislation and court rulings are expected to increase demand for human resources personnel and labor relations experts.

Program Learning Outcomes

- Create an organizational workforce plan.
- Develop training programs.
- Examine organizational total rewards programs.
- Incorporate employment law into business practices.
- Facilitate effective employee relations.

CREDITS

Total credits needed to complete this degree

62

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Leadership Development

PROGRAM CODE: 10-196-1



Associate Degree



Location: Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Develop effective leadership skills crucial to today's workforce. This program is designed for those in a full-time leadership position, as well as individuals seeking preparation for a future leadership role. Core courses are taught online in eight-week sessions; remaining technical courses are offered as online, hybrid and face-to-face options.

Career Outlook

Students can use the skills learned in this degree in any career. Those in leadership roles are focused, disciplined and receptive to new ideas, and they have a clear vision of how to achieve their goals.

Program Learning Outcomes

- Utilize quality strategies and tactics.
- Apply effective leadership skills.
- Apply Human Resource policies and procedures.
- Perform supervisory management functions to achieve organizational objectives.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
BADM-106 MS Office for Business Applications	3
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
LDRSHP-164 Personal Leadership Strategies	3
LDRSHP-189 Team Building and Problem-Solving	3
PSYCH-199 Psychology of Human Relations	3
(or) Any 200-level PSYCH course	
ACCTG-126 Accounting for Managers	3
(or) ACCTG-110 Financial Accounting	
HRMGT-193 Human Resource Management	3
LDRSHP-168 Organizational Development	3
LDRSHP-195 Communication Strategies for Leaders	3
SOCSCI-103 Think Critically and Creatively	3
(or) Any 200-level SOCSCI course	
ECON-195 Economics	3
(or) Any 200-level SOCSCI course	
HRMGT-133 Legal Issues and Employment Law	3
(or) BADM-165 Legal Environment of Business	
HRMGT-169 Diversity and Change Management	3
HRMGT-198 Business Ethics	3
LDRSHP-191 Supervision	3
ELECTIVES (Six credits)	6
ENG-196 Oral/Interpersonal Communication ‡	3
(or) SPEECH-210 Conflict and Communication	
LDRSHP-190 Leadership Development	3
MATH-134 Mathematical Reasoning	3
(or) Any 200-level MATH course	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Marketing

PROGRAM CODE: 10-104-3



Associate Degree



Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Develop a broad base of industry-required knowledge and abilities in advertising, sales, promotion, marketing research, digital marketing, social media, client services and customer experience planning.

Career Outlook

This program is a Department of Labor “Bright Outlook Career” with expected growth of 10% over the next 10 years.

Program Learning Outcomes

- Develop strategies to anticipate and satisfy market needs.
- Promote products, services, images, and/or ideas to achieve a desired outcome.
- Evaluate information through the market research process to make business decisions.
- Prepare selling strategies.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE		CREDITS
BADM-106	MS Office for Business Applications	3
ENG-195	Written Communication ‡ ^	3
	(or) ENG-201 English 1 ‡	
MKTG-102	Marketing Principles ^ *	3
MKTG-104	Selling Principles *	3
ACCTG-110	Financial Accounting	3
MATH-107	College Mathematics ‡	3
	(or) Any 200-level MATH course	
MKTG-125	Advertising: Brands and Campaigns ^	3
MKTG-173	Marketing Research/Analytics ^ *	3
MKTG-198	Visual Media Marketing ^	3
BADM-110	Business Communications With Technology	3
ECON-195	Economics	3
	(or) Any 200-level ECON course	
ENG-197	Technical Reporting ‡	3
	(or) Any 200-level ENG course	
MKTG-118	Social Media Marketing ^	3
MKTG-165	Digital Marketing ^	3
PSYCH-199	Psychology of Human Relations	3
	(or) Any 200-level PSYCH course	
BADM-134	Business Organization and Management	3
MKTG-106	Retail and Consumer Marketing ‡ *	3
MKTG-107	Customer Experience *	3
MKTG-134	Integrated Marketing Communications ^	3
MKTG-144	Client Services ^ *	3
MKTG-175	Marketing Internship ‡	1

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

^ Counts toward earning the Digital Marketing and Integrated Communications technical diploma.

* Counts toward earning the Sales and Customer Experience technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Medical Administrative Specialist

PROGRAM CODE: 31-160-4



Technical Diploma



COURSE	CREDITS
BRHLTH-124 Medical Office Terminology 1 ^.....	3
OFTECH-101 Office Technologies 1 ^.....	3
OFTECH-103 Keyboard and Keypad ^.....	1
OFTECH-122 Business English Essentials ^.....	3
OFTECH-119 Information Management	3
OFTECH-104 Budget Basics for Support Personnel	3
BRHLTH-125 Medical Office Terminology 2 ‡ ^.....	3
OFTECH-133 Business Document Production 1 ‡	3
BIOSCI-189 Basic Anatomy ^..... (or) Any 200-level BIOSCI course	3
BRHLTH-135 Medical Document Production ‡.....	3
BRHLTH-140 Electronic Health Records: Administrative Application ‡.....	3
BRHLTH-142 Administrative Procedures for the Medical Office ‡.....	3
BRHLTH-170 Medical Insurance Principles and Coding ‡ ^.....	3
BADM-110 Business Communications With Technology	3
BRHLTH-112 Computerized Medical Billing ‡ ^.....	3
BRHLTH-174 Medical Claims Reimbursement ‡ ^.....	2
BRHLTH-197 Medical Office Career Investigation ‡ ^.....	3

Location: West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Employers may require background checks, drug testing, immunizations or signed statements of confidentiality.

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

If you have an interest in the business or academic aspects of the health field, this program is a good fit for your career plans. Courses are offered in a blended format, which may include traditional classroom instruction and an online component.

Career Outlook

Work may include assisting with academic research, preparing electronic medical records or processing insurance claims. Employment opportunities are expected to increase.

Program Learning Outcomes

- Perform routine healthcare administrative procedures.
- Process insurance claims.
- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Maintain internal and external relationships.
- Model professionalism in the workplace.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

48

‡ Prerequisite required.

^ Counts toward earning the Medical Billing technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Office Technology Assistant

PROGRAM CODE: 30-160-1



Technical Diploma



COURSE		CREDITS
OFTECH-101	Office Technologies 1	3
OFTECH-103	Keyboard and Keypad.....	1
OFTECH-119	Information Management	3
OFTECH-122	Business English Essentials.....	3
OFTECH-182	Customer Service Skills.....	3
OFTECH-104	Budgeting Basics for Support Personnel.....	3
OFTECH-133	Business Document Production 1 ‡.....	3
OFTECH-165	Administrative Office Procedures 1 ‡	3
OFTECH-184	MS Office: Word, Excel, Access and PowerPoint ‡	3

CREDITS
Total credits needed to complete this diploma **25**

‡ Prerequisite required.
Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, West Allis Campus
Start Dates: August and January
Admission Requirement: High school diploma or GED
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

To boost your career, gain skills in the updated technology that today's offices rely on every day. Coursework includes learning administrative office procedures, studying basic accounting, using the software prominent in office environments, and developing strong keyboarding skills. Courses are offered in a variety of formats including online and blended, which may include traditional classroom instruction and an online component.

Career Outlook

This occupation ranks among those with the largest number of job openings. Opportunities should be best for applicants with extensive knowledge of software applications.

Program Learning Outcomes

- Perform accurate workplace communications.
- Use technology skills for business tasks.
- Perform routine office procedures.
- Demonstrate professionalism and effective workplace relationships.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Property Management

PROGRAM CODE: 61-194-2



Certificate



COURSE

RLEST-180	Principles of Real Estate.....	3
RLEST-190	Introduction to Property Management.....	3

CREDITS

CREDITS

Total credits needed to complete this certificate

6

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Online Campus, West Allis Campus

Start Dates: June, August and January

Admission Requirement: High school diploma or GED

Program Description

Unlock the potential that property management provides in today’s real estate market. Leases, rent scheduling, renting techniques, tenant selection and relations with property owners are some of the topics covered in this program.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate’s requirements, the student’s transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Real Estate Broker Associate

PROGRAM CODE: 30-194-1



Technical Diploma



COURSE		CREDITS
RLEST-180	Principles of Real Estate ^	3
RLEST-182	Real Estate Law ^	3
RLEST-183	Real Estate Broker Preparation.....	3
RLEST-187	Broker Management.....	3

CREDITS 12

Total credits needed to complete this diploma

^ Counts toward earning the Real Estate Salesperson certificate.
 Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

Address your interests in the buying and selling of real estate. This program's coursework prepares you to operate a real estate office or work for a commercial real estate firm overseeing real estate transactions.

Career Outlook

Employment of real estate brokers and sales agents in the United States is projected to grow 6% from 2016 to 2026.

Program Learning Outcomes

- Prepare real estate contracts and documents in accordance with applicable laws.
- Apply concepts of property valuation to real estate transactions.
- Identify environmental issues in real estate transactions.
- Demonstrate real estate brokerage business management skills.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Real Estate Salesperson

PROGRAM CODE: 61-194-1



Certificate



COURSE

RLEST-180	Principles of Real Estate.....	3
RLEST-182	Real Estate Law	3

CREDITS

CREDITS

Total credits needed to complete this certificate

6

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Online Campus, West Allis Campus

Start Dates: June, August and January

Admission Requirement: High school diploma or GED

Program Description

The two courses in this certificate satisfy the educational requirement that must be met prior to taking the State of Wisconsin Real Estate Salesperson Exam. You will learn about the duties and responsibilities of a real estate professional.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Real Estate

PROGRAM CODE: 10-194-1



Associate Degree



Location: Online Campus, West Allis

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This comprehensive, state-approved program prepares you for a range of careers in the real estate field, including sales and brokerage, building inspection, and property management. Courses that meet educational requirements to qualify for state licensing exams are part of the curriculum.

Career Outlook

Options include working for real estate companies or as a self-employed real estate specialist. A willingness to work evenings and weekends is important.

Program Learning Outcomes

- Prepare real estate contracts and documents in accordance with applicable laws.
- Apply mathematical, financing and investment principles to real estate transactions.
- Apply concepts of property valuation to real estate transactions.
- Identify building construction and environmental issues in real estate transactions.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE	CREDITS
BADM-106 MS Office for Business Applications	3
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
RLEST-180 Principles of Real Estate ^ * +	3
RLEST-182 Real Estate Law ^ +	3
RLEST-189 Introduction to Home Inspection	3
MATH-123 Math With Business Applications ‡	3
(or) Any 200-level MATH course	
RLEST-181 Principles of Commercial Real Estate	3
RLEST-188 Listing, Selling and Sales Tools.....	3
RLEST-190 Introduction to Property Management *	3
BADM-110 Business Communications With Technology	3
ECON-195 Economics.....	3
(or) Any 200-level ECON course	
ENG-196 Oral/Interpersonal Communication ‡	3
(or) Any 200-level ENG or SPEECH course	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
RLEST-184 Real Estate Mortgage Lending.....	3
RLEST-185 Real Estate Investment Principles.....	3
ACCTG-110 Financial Accounting	3
BADM-134 Business Organization and Management.....	3
MKTG-102 Marketing Principles.....	3
RLEST-183 Real Estate Broker Preparation ^	3
RLEST-187 Broker Management ^	3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Real Estate Broker Associate technical diploma.

* Counts toward earning the Property Management certificate.

+ Counts toward earning the Real Estate Salesperson certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is approved by:

State of Wisconsin Department of Safety and Professional Services

4822 Madison Yards Way

Madison, WI 53705; 608-266-2112

<https://dsps.wi.gov/Pages/Professions/RESalesperson/Default.aspx>

Sales and Customer Experience

PROGRAM CODE: 30-104-10



Technical Diploma



COURSE	CREDITS
MKTG-102 Marketing Principles.....	3
MKTG-104 Selling Principles.....	3
MKTG-106 Retail and Consumer Marketing ‡	3
MKTG-107 Customer Experience	3
MKTG-144 Client Services	3
MKTG-173 Marketing Research/Analytics.....	3

CREDITS

Total credits needed to complete this diploma

18

‡ Prerequisite required.

All courses in this program count toward the Marketing associate degree. Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for a successful sales career by developing knowledge of commercial and consumer markets, sales, client services and customer experience planning. Focusing on the latest sales trends and technologies, this program is designed for the sales novice or professionals looking to refresh their skills.

Career Outlook

This program is a Department of Labor “Bright Outlook Career” with expected growth of 10% over the next 10 years.

Program Learning Outcomes

- Develop marketing strategies.
- Develop selling strategies.
- Deliver sales presentations.
- Apply customer experience and client services strategies.
- Analyze sales information.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Special Event Management

PROGRAM CODE: 31-109-2



Technical Diploma



COURSE		CREDITS
BADM-106	MS Office for Business Applications	3
ENG-195	Written Communication ‡	3
	(or) ENG-201 English 1 ‡	
HOTEL-122	Basic Hospitality Accounting	3
MEET-151	Introduction to Hospitality/Tourism	3
HOTEL-105	Hospitality Marketing, Sales and Revenue Strategy	3
HOTEL-127	Fundamentals of Meetings and Special Events	3
HOTEL-135	Hospitality Professional Service and Development	3
MEET-116	Fundamentals of Green Meetings	2
MEET-180	Registration and Housing Logistics ‡	3
MEET-181	Exposition and Special Event Management ‡	3

Location: Downtown Milwaukee Campus, Oak Creek Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

29

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

Put your creativity and planning skills to work and begin a career in event management. This program covers a broad range of topics related to the hospitality industry, including marketing, contracts and accounting.

Career Outlook

Associations and corporations hire people to arrange, plan and conduct special events in a wide range of venues. In this field there are opportunities for skilled, customer service-focused employees.

Program Learning Outcomes

- Design a special event.
- Apply the fundamentals strategies to a special event.
- Manage the fundamentals of financial resources.
- Identify the various components that make up the hospitality industry.
- Manage the fundamentals of housing and registration process.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Supply Chain Management

PROGRAM CODE: 10-182-1



Associate Degree



Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

If you want to pursue a career in logistics, transportation, distribution, purchasing, production or inventory control, this program will interest you. Areas of study include supply chains and quality management. The program's blended format is 50% online and 50% classroom.

Career Outlook

The projected employment outlook is steady for the field of supply chain management. Positions may require travel and overtime.

Program Learning Outcomes

- Implement supply management practices in a global environment.
- Demonstrate operations management techniques across product and service industries.
- Analyze logistic interfaces and activities in a supply chain.
- Evaluate demand management techniques and customer service policies



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COURSE		CREDITS
BADM-106	MS Office for Business Applications ^ *	3
ENG-195	Written Communication ‡ (or) ENG-201 English 1 ‡	3
LOGMGT-107	Career Assessment/Portfolio Development ^ *	3
LOGMGT-146	Operations Management ^ *	3
LOGMGT-164	Supply Chain Management ^ *	3
BADM-165	Legal Environment of Business	3
ECON-195	Economics (or) Any 200-level ECON course	3
ENG-197	Technical Reporting ‡ (or) Any 200-level ENG or SPEECH course	3
LOGMGT-170	Procurement ^	3
LOGMGT-190	Logistics *	3
LOGMGT-105	Enterprise Resource Planning	3
LOGMGT-144	Production Planning and Inventory Control ^	3
LOGMGT-184	International Logistics – Transportation/Documentation *	3
MATH-123	Math With Business Applications ‡ (or) Any 200-level MATH course	3
QETECH-188	Project Management	3
ACCTG-126	Accounting for Managers	3
BADM-104	Business Statistics ‡	3
LOGMGT-106	eCommerce Logistics	3
LOGMGT-191	Integrated Supply Chain Management ‡	3
PSYCH-199	Psychology of Human Relations (or) Any 200-level PSYCH course	3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Supply Management technical diploma.

* Counts toward earning the Transportation – Logistics technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is approved by:

State of Wisconsin Department of Safety and Professional Services

4822 Madison Yards Way

Madison, WI 53705; 608-266-2112

<https://dsps.wi.gov/Pages/Professions/RESalesperson/Default.aspx>.

Supply Management

PROGRAM CODE: 30-182-1



Technical Diploma



COURSE		CREDITS
BADM-106	MS Office for Business Applications	3
INDVTS-102	Career Assessment/Portfolio Development	3
LOGMGT-164	Supply Chain Management	3
LOGMGT-144	Production Planning and Inventory Control	3
LOGMGT-146	Operations Management	3
LOGMGT-170	Procurement.....	3

CREDITS

Total credits needed to complete this diploma

18

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Oak Creek Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and basic computer skills

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Begin a career in supply chain management, purchasing or materials management through this program. You will gain skills in a variety of areas, including inventory control, vendor negotiations and purchasing procedures. The program's blended format is 50% online and 50% classroom at the Oak Creek Campus; also offered 100% online.

Career Outlook

Employment of purchasing managers, buyers and purchasing agents is expected to remain steady in most industries.

Program Learning Outcomes

- Define (plan) operations, transportation, procurement and distribution.
- Measure operations, transportation, procurement and distribution.
- Analyze operations, transportation, procurement and distribution.
- Improve operations, transportation, procurement and distribution.
- Control operations, transportation, procurement and distribution.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

Transportation – Logistics

PROGRAM CODE: 30-182-2



Technical Diploma



COURSE	CREDITS
BADM-106 MS Office for Business Applications	3
INDVTS-102 Career Assessment/Portfolio Development	3
LOGMGT-164 Supply Chain Management	3
LOGMGT-146 Operations Management	3
LOGMGT-184 International Logistics – Transportation/Documentation ...	3
LOGMGT-190 Logistics	3

CREDITS

Total credits needed to complete this diploma

18

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Oak Creek Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED
basic computer skills

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for success in the growing transportation and logistics industry, which is involved with managing the movement of products and supplies. The program’s blended format is 50% online and 50% classroom at the Oak Creek Campus; also offered 100% online.

Career Outlook

Employment opportunities are expected to grow as supply and distribution systems become increasingly complex, and important, in the global economy.

Program Learning Outcomes

- Define (plan) operations, transportation, procurement and distribution.
- Measure operations, transportation, procurement and distribution.
- Analyze operations, transportation, procurement and distribution.
- Improve operations, transportation, procurement and distribution.
- Control operations, transportation, procurement and distribution.



Complete Program Details

QUESTIONS? 414-456-5323, 414-297-8903 or leadpathway@matc.edu

COMMUNITY & HUMAN SERVICES

A team of experienced, dedicated professionals and state-of-the-art facilities prepare you for careers that provide vital services in our 21st century communities. Whether your goal is to earn a certificate, technical diploma or associate degree, transfer to a four-year college or enter the workforce, our programs help you build the foundational skills necessary for you to compete and succeed in your chosen field. With courses offered at four MATC campuses, we strive to provide our programs where and when you need them.

Pathway Offices

Downtown Milwaukee Campus, T Building, Room T200, **414-297-8837**

Mequon Campus, Room A108

Oak Creek Campus, Room A121, **414-570-4426**

West Allis Campus, Room 103

servepathway@matc.edu



Aesthetician TD
Aesthetician Skin Care Therapist AD
Barber TD
Child Care Services TD
Cosmetology TD
Criminal Justice Studies AD
Early Childhood Education AD
Emergency Medical Technician TD
Emergency Medical Technician – Advanced TD
Emergency Medical Technician – Paramedic TD
Environmental Health and Water Quality Technology AD

Fire Protection Technician AD
Funeral Service AD
Human Service Associate AD
Legal Studies/Paralegal AD
Nail Technician TD
Paramedic Technician AD
Post-Baccalaureate Legal Studies/Paralegal TD
Preschool C
Water Technician C



AD Associate Degree program
TD Technical Diploma program
C Certificate program

Aesthetician

PROGRAM CODE: 31-502-3



Technical Diploma



Location: Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED
This program admits students through a petition selection process. See the program's webpage at matc.edu for details.

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn advanced skin care techniques and work with clients at Skyn – the Spa at MATC Mequon, the state-of-the-art facility on campus. This program is in compliance with the Wisconsin Department of Safety and Professional Services. You will become eligible to take the state board aesthetician licensing examination and work in upscale spas or alongside medical professionals.

Career Outlook

Employment opportunities include day spas, beauty salons, resorts, hotels, fitness centers and cruise ships. With additional training and licensing, you could become an independent contractor, a salon/spa owner or aesthetician instructor.

Program Learning Outcomes

- Perform consultations and skin analysis.
- Perform facial and body treatments.
- Perform hair removal services.
- Perform microdermabrasion and chemical exfoliation.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
AESTHE-131 Introduction to Aesthetics Spa ‡	2
AESTHE-104 Spa Treatments ‡	3
AESTHE-108 Facial Treatments	3
AESTHE-117 Salon Ecology/Decontamination	2
AESTHE-155 Spa Science Fundamentals	3
AESTHE-156 Spa Product Sciences ‡	3
AESTHE-132 Intermediate Spa Services ‡	2
AESTHE-106 Advanced Makeup Techniques ‡	1
AESTHE-107 Advanced Spa Treatments ‡	1
AESTHE-109 Hair Removal Techniques ‡	1
AESTHE-135 Aesthetician Board Prep ‡	3
AESTHE-134 Business Fundamentals	3
AESTHE-133 Advanced Spa Services ‡	2
ENG-195 Written Communication (or) ENG-201 English 1 ‡	3

CREDITS

Total credits needed to complete this diploma

30

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Note: In addition to tuition and textbooks, students must purchase a tool/equipment kit.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is in compliance with:
State of Wisconsin Department of Safety and Professional Services
4822 Madison Yards Way
Madison, WI 53705; 608-266-2112
<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>.

Aesthetician Skin Care Therapist

PROGRAM CODE: 10-502-2



Associate Degree



Location: Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

This program admits students through a petition selection process. See the program's webpage at matc.edu for details.

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn advanced aesthetic topics, including spa wellness (oncology aesthetics, aromatherapy, reflexology and Reiki Master), advanced hair removal (full body/Brazilian), advanced exfoliation (dermaplaning, layered chemical peels and HydraFacial), lash extensions, microblading, lash/brow tinting, threading and aesthetic machines. Get hands-on learning at Skyn – the Spa at MATC Mequon, the state-of-the-art facility located on campus.

Program Learning Outcomes

- Perform consultations and skin analysis.
- Perform facial and body treatments.
- Perform hair removal services.
- Demonstrate makeup application.

COURSE	CREDITS
AESTHE-131 Introduction to Aesthetics Spa Service ‡ ^.....	2
AESTHE-104 Spa Treatments ‡ ^.....	3
AESTHE-108 Facial Treatments ^.....	3
AESTHE-117 Salon Ecology/Decontamination ^.....	2
AESTHE-155 Spa Science Fundamentals ^.....	3
AESTHE-156 Spa Product Sciences ‡ ^.....	3
ENG-195 Written Communication ‡ ^..... (or) Any 200-level English course ‡	3
AESTHE-132 Intermediate Spa Services ‡ ^.....	2
AESTHE-106 Advanced Makeup Techniques ‡ ^.....	1
AESTHE-107 Advanced Spa Treatments ‡ ^.....	1
AESTHE-109 Hair Removal Techniques ‡ ^.....	1
AESTHE-133 Advanced Spa Services ‡ ^.....	2
AESTHE-135 Aesthetician Board Prep ‡ ^.....	3
AESTHE-134 Business Fundamentals ^.....	3
MATH-123 Math With Business Applications ‡..... (or) Any 200-level MATH course	3
AESTHE-136 Oncology Aesthetics.....	2
AESTHE-137 Advanced Exfoliation.....	2
AESTHE-138 Advanced Hair Removal.....	2
AESTHE-139 Introduction to Holistic Healing.....	2
ENG-196 Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
AESTHE-140 Advanced Lash Techniques.....	2
AESTHE-141 Advanced Brow Techniques.....	2
AESTHE-143 21st Century Branding and Marketing.....	2
AESTHE-144 Master Spa Services.....	2
SOCSCI-103 Think Critically and Creatively..... (or) Any 200-level SOCSCI course	3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Aesthetician technical diploma

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is in compliance with the State of Wisconsin Department of Safety and Professional Services

4822 Madison Yards Way, Madison, WI 53705

608-266-2112;

<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

Barber

PROGRAM CODE: 31-502-5



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED
Complete the program survey and orientation to register for courses.

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares you to work in the barbering profession, in compliance with the Wisconsin Department of Safety and Professional Services. You will learn shampooing, cutting and hairstyling techniques, shaving, beard trimming, hair coloring, and other services. Graduates of this program are eligible to take the state board licensing exam.

Career Outlook

Employment prospects for licensed barbers are excellent. Many barbers are self-employed, either owning their business or leasing booth space.

Program Learning Outcomes

- Apply safety and sanitation procedures.
- Adhere to the current Wisconsin administrative codes and statutes for barbers.
- Demonstrate interpersonal skills for success.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
BARCOS-300 Shampoo and Scalp Treatments.....	2
BARBER-336 Introduction to Barber Theory ‡.....	1
BARBER-337 Intro to Barber Haircutting ‡.....	2
BARBER-341 Shaving/Facials ‡.....	2
BARBER-347 Intro to Barber Hairstyling ‡.....	1
BARCOS-324 Business Skills for Barbers/Cosmetologists.....	1
BARBER-344 Intermediate Barber Theory ‡.....	1
BARBER-345 Intermediate Barber Haircut ‡.....	2
BARBER-346 Barber Permanent Waving ‡.....	1
BARBER-348 Introduction to Barber Guest Services ‡.....	2
BARBER-338 Barber Chemical Relaxing ‡.....	1
BARCOS-319 Natural Hair Care and Braiding.....	1
BARBER-318 Advanced Barber Theory ‡.....	1
BARBER-322 Intermediate Barber Guest Services ‡.....	1
BARBER-349 Advanced Barber Haircutting ‡.....	1
BARBER-350 Barber Chemical Services 3 ‡.....	2
BARBER-351 Advanced Barber Hairstyle ‡.....	1
BARBER-353 Barber Externship ‡.....	2
BARCOS-330 Business Management Skills for Barbers/Cosmetologists ‡.....	2
BARBER-354 Advanced Barber Guest Services ‡.....	1
BARBER-352 Barber State Board Reviewer ‡.....	2
SOCSCI-172 Introduction to Diversity Studies.....	3

CREDITS

Total credits needed to complete this diploma

33

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is in compliance with:
State of Wisconsin Department of Safety and Professional Services
4822 Madison Yards Way
Madison, WI 53705; 608-266-2112
<https://dsps.wi.gov/Pages/Professions/Barber/Default.aspx>.

Child Care Services

PROGRAM CODE: 31-307-1



Technical Diploma



COURSE	CREDITS
CHILDD-108 ECE: Early Language and Literacy ^.....	3
CHILDD-148 ECE: Foundations of Early Childhood Education ^	3
CHILDD-151 ECE: Infant and Toddler Development.....	3
CHILDD-167 ECE: Health, Safety and Nutrition ^.....	3
CHILDD-195 ECE: Family and Community Relationships.....	3
CHILDD-160 ECE: Field Experience 1 ^	3
CHILDD-179 ECE: Child Development ^.....	3
CHILDD-188 ECE: Guiding Child Behavior ^.....	3
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	

Location: Downtown Milwaukee Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED
Documentation of compliance with Wisconsin’s Caregiver Law; proper immunizations and good health as evidenced by a medical examination; practicum placement is contingent upon results of criminal background check

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Bilingual (Spanish) mode is offered at the West Allis Campus

Child development, nutrition, creative activities and practical experience with young children are emphasized. Graduates work in child care centers, as well as serve as family child care providers.

Career Outlook

Trends indicate a steady growth in the child care field.

Program Learning Outcomes

- Relate knowledge of child development to practice.
- Create relationships with children, family and the community.
- Apply observation, documentation and assessment strategies.
- Implement developmentally appropriate teaching and learning activities.
- Demonstrate professionalism.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

CREDITS

Total credits needed to complete this diploma

27

‡ Prerequisite required.

^ Counts toward earning the Preschool certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Cosmetology

PROGRAM CODE: 31-502-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED
Complete the program survey and orientation to register for courses.

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Use your talents to work in the cosmetology profession. This program, which is in compliance with the Wisconsin Department of Safety and Professional Services, can be completed in one year to 18 months, including attendance in summer. Graduates are eligible to take the state board licensing examination.

Career Outlook

Employment prospects for cosmetologists are excellent. Typical job titles are cosmetologist, hair and scalp specialist, stylist, colorist, manicurist, and makeup artist.

Program Learning Outcomes

- Perform shampoo, haircut, and style services.
- Perform skin care services.
- Perform chemical services.
- Perform nail services.
- Develop business practices for industry success.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
BARCOS-300 Shampoo and Scalp Treatments	2
COSMET-302 Intro to Haircutting ‡	2
COSMET-310 Hair Tinting ‡	2
COSMET-314 Intro to Hairstyling	2
COSMET-306 Intro to Esthetics ‡	2
COSMET-301 Intermediate Haircutting ‡	2
COSMET-309 Chemical Relaxing ‡	2
COSMET-304 Permanent Wave	2
COSMET-317 Barber/Cosmetology Theory ‡	1
BARCOS-319 Natural Hair Care and Braiding	1
COSMET-320 Intro to Guest Services ‡	1
MATH-304 Math Principles 1	1
COSMET-305 Advanced Haircutting ‡	2
COSMET-312 Advanced Color	1
COSMET-308 Nail Services ‡	2
COSMET-307 Advanced Esthetics ‡	1
COSMET-315 Intermediate Hairstyling ‡	2
COSMET-323 Intermediate Guest Services ‡	1
COSMET-303 Master Haircutting ‡	2
COSMET-313 Hair Color Correction ‡	1
COSMET-321 Hair Extensions ‡	1
BARCOS-324 Business Skills for Barber/Cosmetologist	1
COSMET-329 Basic Artificial Nail Concepts ‡	1
COSMET-326 Advanced Guest Services ‡	1
ENG-340 Workplace Communication	2
ENG-195 Written Communication ‡	3
BARCOS-330 Business Management Skills for Barbers/Cosmetologists ‡	2
COSMET-316 Advanced Style ‡	1
COSMET-327 Master Guest Services ‡	1
COSMET-328 Externship ‡	1
COSMET-335 State Board Review ‡	3

CREDITS

Total credits needed to complete this diploma

46

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Note: In addition to tuition and textbooks, students must purchase a tool/equipment kit.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is in compliance with:

State of Wisconsin Department of Safety and Professional Services
4822 Madison Yards Way

Madison, WI 53705; 608-266-2112

<https://dsps.wi.gov/Pages/Professions/Cosmetologist/Default.aspx>

Criminal Justice Studies

PROGRAM CODE: 10-504-5



Associate Degree



Location: Downtown Milwaukee Campus, Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, age 17 or older

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares you for employment in law enforcement at the local, state and federal levels, as well as in the field of private security. Successful completion of this program may qualify you to enroll in basic recruit training that leads to certification in Wisconsin.

Career Outlook

Currently trained security professionals are in demand.

Program Learning Outcomes

- Illustrate the interrelationships of the three core components of the criminal justice system.
- Analyze situational responses.
- Apply communication skills as a criminal justice professional.
- Conduct investigations.
- Examine the professional code of ethics for a criminal justice practitioner.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
CJS-161 Ethics in Law Enforcement	3
CJS-900 Introduction to Criminal Justice	3
CJS-901 Constitutional Law.....	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
ENG-196 Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
MATH-107 College Mathematics ‡..... (or) Any 200-level MATH course	3
CJS-902 Criminal Law ‡	3
CJS-907 Community Policing Strategies	3
CJS-908 Traffic Theory.....	3
ECON-195 Economics..... (or) Any 200-level ECON course	3
CJS-160 Contemporary Legal Issues	3
CJS-162 Sensitive Crimes.....	3
CJS-906 Criminal Investigation Theory ‡	3
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level SOCSCI course	
ELECTIVES (Three credits).....	3
CJS-903 Professional Communications ‡	3
CJS-904 Juvenile Law ‡	3
CJS-905 Report Writing ‡	3
SOCSCI-172 Introduction to Diversity Studies..... (or) Any 200-level SOCSCI course	3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is approved by the Wisconsin Department of Justice Training and Standards Bureau,
P.O. Box 7857, Madison, WI 53707-7857; 608-266-1221;
www.doj.state.wi.us/dles/training-and-standards-bureau.

Early Childhood Education

PROGRAM CODE: 10-307-1



Associate Degree



Location: Downtown Milwaukee Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: A high school diploma or GED
Documentation of compliance with Wisconsin's Caregiver Law; proper immunizations and good health as evidenced by a medical examination; practicum placement is contingent upon results of criminal background check

Transfer: Will transfer to one or more four-year institutions

Financial aid eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Bilingual (Spanish) mode offered at West Allis Campus

Pursue a career in child care or at exceptional education settings for young children and have a positive impact on a child's life. Program requirements include the completion of four practicum experiences. All courses are offered in English; a bilingual mode is offered at the West Allis Campus.

Career Outlook

Opportunities exist in child care centers, family child care, or working with exceptional-needs children.

Program Learning Outcomes

- Apply child development theory to practice.
- Cultivate relationships with children, family and the community.
- Assess child growth and development.
- Use best practices in teaching and learning.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
CHILDD-148 ECE: Foundations of Early Childhood Education ^	3
CHILDD-151 ECE: Infant and Toddler Development ^	3
CHILDD-167 ECE: Health, Safety and Nutrition ^	3
CHILDD-160 ECE: Field Experience 1 ^	3
ENG-195 Written Communication ‡ ^ (or) ENG-201 English 1 ‡ (or) Any 200-level ENG or SPEECH course	3
CHILDD-108 ECE: Early Language and Literacy ^	3
CHILDD-170 ECE: Field Experience 2 ‡	3
CHILDD-179 ECE: Child Development ^	3
CHILDD-195 ECE: Family and Community Relationships ^	3
ENG-196 Oral/Interpersonal Communication ‡ (or) Any 200-level ENG or SPEECH course	3
CHILDD-110 ECE: Social Studies, Art and Music	3
CHILDD-190 ECE: Field Experience 3 ‡	3
CHILDD-188 ECE: Guiding Child Behavior ^	3
GEOSCI-112 Principles of Sustainability (or) Any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
PSYCH-188 Developmental Psychology (or) PSYCH-238 Lifespan Psychology (or) Any 200-level PSYCH course	3
CHILDD-112 ECE: STEM	3
CHILDD-187 ECE: Children With Differing Abilities	3
CHILDD-210 ECE: Field Experience 4 ‡	3
ELECTIVES (Three credits)	3
SOCSCI-172 Introduction to Diversity Studies (or) SOCSCI-217 Valuing Diversity (or) Any 200-level SOCSCI course	3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Child Care Services technical diploma. Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by:

National Association for the Education of Young Children (NAEYC)
1401 H Street NW, Suite 600
Washington, DC 20005; 800-424-2460;
naeyc.org/accreditation.

Emergency Medical Technician

PROGRAM CODE: 30-531-3



Technical Diploma



COURSE	CREDITS
EMS-192 EMT.....	5

CREDITS Total credits needed to complete this diploma	5
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Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

- Location:** Mequon Campus, Oak Creek Campus
- Start Dates:** August, January and June
- Admission Requirement:** Must be at least 18 years old when applying for the state EMT-Basic license, plus background check. Must be TCTP eligible.
- Financial aid eligible:** No

Program Description

Prepare to enter the emergency services field, which involves working with other healthcare professionals to deliver critical, prehospital emergency medical care. This program also is designed to enhance existing skills of individuals working in the field. Completing the program with a grade of C or higher prepares you to take the National Registry Examination, which is required for certification and licensure in Wisconsin.

Career Outlook

Employment opportunities exist in both the private and public sectors.

Program Learning Outcomes

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate EMT skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

Emergency Medical Technician – Advanced

PROGRAM CODE: 30-531-6



Technical Diploma



COURSE	CREDITS
EMS-311 AEMT - Advanced Emergency Technician ‡.....	4

CREDITS

Total credits needed to complete this diploma

4

180 hours total
 Clinical hours consist of time in hospital settings or with sponsoring fire department/ambulance providers that use approved preceptors to oversee.

‡ Prerequisite required.

Program curriculum requirements are subject to change.
 Official Wisconsin Technical College System program title:
 Advanced EMT.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Oak Creek Campus

Start Dates: TBD

Admission Requirement: Age 18 or older; State of Wisconsin EMT license (current); CPR certification issued by a WI DHS EMS approved provider (current). Students must meet Wisconsin DHS—EMS Chapter 110.06 initial training requirements and eligibility criteria; and Wisconsin DHS Caregiver Background Check requirements. To complete the course, students must obtain a Wisconsin DHS—EMS Training Center Training Permit. After students are admitted to the program, information will be provided regarding the Wisconsin DHS Caregiver Background Check, Training Center Training Permit, immunizations including COVID vaccination and TB testing, and medical exam requirements. This program admits students through a petitioning process. See program webpage for details.

Financial aid eligible: No.

Program Description

The Emergency Medical Technician – Advanced curriculum builds upon EMT knowledge, skills, and competencies. Students learn advanced emergency medical skills, competencies, procedures, and medications within the AEMT scope of practice including IV access, fluid therapy, and medication administration techniques. AEMT's perform emergent basic life support, and limited advanced life support care in emergency and healthcare settings. Students completing the program with a grade of C or higher are eligible for the National Registry of EMT's certification examination which is required to obtain a Wisconsin AEMT license.

Career Outlook

Employment opportunities exist within public, private, municipal, and governmental EMS agencies, healthcare systems, private industry, and security companies.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

Program Learning Outcomes

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate AEMT skills associated with established standards and procedures for a variety of patient encounters.
- Meet program, state, and national competencies and criteria for NREMT AEMT certification(s) eligibility.

Emergency Medical Technician – Paramedic

PROGRAM CODE: 31-531-1



Technical Diploma



Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: Age 18 or older; State of Wisconsin Emergency Medical Technician or Advanced EMT license (current); CPR certification issued by a WI DHS EMS approved provider (current). Students must meet Wisconsin DHS—EMS Chapter 110.06 initial training requirements and eligibility criteria; and Wisconsin DHS Caregiver Background Check requirements. To complete the course, students must obtain a Wisconsin DHS—EMS Training Center Training Permit. After students are admitted to the program, information will be provided regarding the Wisconsin DHS Caregiver Background Check, Training Center Training Permit, immunizations including COVID vaccination and TB testing, and medical exam requirements. This program admits students through a petitioning process. See program webpage for details.

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Become an integral member of an advanced emergency medical team, providing medical care in emergency settings. Students learn advanced principles of pathophysiology, pharmacology, medical conditions, traumatic injuries, and emergency medical interventions. Students completing the program with a grade of C or higher are eligible for the National Registry of EMT's certification examination which is required to obtain a Wisconsin Paramedic license.

Career Outlook

Employers include private ambulance services, hospitals, fire departments, industrial firms and security companies.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
EMS-911 EMS Fundamentals ‡	2
EMS-912 Paramedic Medical Principles ‡	4
EMS-913 Advanced Patient Assessment Principles ‡	3
EMS-914 Advanced Prehospital Pharmacology ‡	3
EMS-915 Paramedic Respiratory Management ‡	2
EMS-916 Paramedic Cardiology ‡	4
EMS-917 Paramedic Clinical/Field 1 ‡	3
EMS-918 Advanced Emergency Resuscitation ‡	1
EMS-919 Paramedic Medical Emergencies ‡	4
EMS-920 Paramedic Trauma ‡	3
EMS-921 Special Patient Populations ‡	3
EMS-922 EMS Operations ‡	1
EMS-923 Paramedic Capstone Assessment ‡	1
EMS-924 Paramedic Clinical/Field 2 ‡	4
SOCSCI-172 Introduction to Diversity Studies	3

CREDITS

Total credits needed to complete this diploma

41

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by:

Commission on Accreditation of Allied Health Education Programs (CAAHEP), Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)
8301 Lakeview Parkway, Suite 111-312
Rowlett, TX 75088; 214-703-8445; coaemsp.org.

This program admits students through a petition selection process. See the program webpage for details. <https://sites.google.com/matc.edu/matcems/paramedic/petition-process>

Program Learning Outcomes

- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate advanced knowledge, skills, and clinical judgement for a variety of patient conditions and presentations.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet program, state, and national competencies and criteria for NREMT Paramedic certification(s) eligibility.

Environmental Health and Water Quality Technology

PROGRAM CODE: 10-506-1



Associate Degree



Location: Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one semester of high school algebra

Transfer: Will transfer to one or more four-year institutions

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program promotes environmental protection, improvement and sustainability, with a focus on protecting our water, food and the environment. Hands-on coursework includes principles and techniques used to assess water, food and the environment to meet applicable regulations and to implement needed corrective measures. Students use field projects and internships to further develop the skills and abilities necessary for careers in these fields. Graduates will possess a solid foundation for a wide range of environmental and public health career opportunities.

Career Outlook

There is a steady need for essential workers, technicians and specialists in water and air quality, food safety, field monitoring, and other related environmental careers.

Program Learning Outcomes

- Evaluate environmental health hazards (air, food, water, soil, etc.).
- Conduct both field and lab environmental sampling/monitoring according to regulatory requirements and guidelines.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
ENVHEL-101	Introduction to Environmental Health/Water Quality ^ 3
ENVHEL-102	Environmental Biology 4
ENVHEL-109	Applied Environmental Chemistry ^ 4
MATH-107	College Mathematics ‡ ^ 3 (or) Any 200-level MATH course
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG
ENVHEL-142	Principles of Water Resources ^ 3
ENVHEL-145	Water/Wastewater Operations – Municipal 3
ENVHEL-173	Environmental Bacteriology 3
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
ECON-195	Economics 3 (or) Any 200-level ECON course
ENVHEL-104	Industrial Hygiene Technology ‡ 4
ENVHEL-111	Applied Water Chemistry and Analysis ‡ 4
ENVHEL-115	Air Quality ‡ 4
ENVHEL-147	Water/Wastewater Operations – Industrial ‡ 3
ENVHEL-105	Fundamentals of Hazardous Materials Control ‡ 4
ENVHEL-119	Food and Dairy Safety ‡ 3
ENVHEL-127	Environmental Field Projects ‡ 3
ENVHEL-128	Environmental Health Internship ‡ 1
ENVHEL-143	Environmental Management and Communication Skills ‡ 3

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Water Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Fire Protection Technician

PROGRAM CODE: 10-503-2



Associate Degree



Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: Age 17 or older. Background check. Medical exam/immunizations. Students entering the program must have an official high school or GED/HSED transcript

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares you for employment in the fire service and for fire-related duties within private industry. The program also instructs current firefighters and officers on changes within the fire service. Students will have the opportunity to obtain three Wisconsin fire certifications.

Career Outlook

As fire technology becomes more complex, the responsibilities and challenges a firefighter assumes are increasingly demanding. Therefore, well-trained and educated firefighters are sought by public and private entities.

Program Learning Outcomes

- Model Fire Protection Technician (National Firefighter Code of Ethics) professional code of ethics.
- Expand Perform fire prevention activities.
- Expand Participate in incident management at an emergency.
- Expand Model firefighter and EMS standards.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
FIRE-143	Building Construction for Fire Protection 3
FIRE-191	Principles of Emergency Services 2
FIRE-192	Principles of Emergency Services Safety and Survival 3
FIRE-193	Fire Protection Systems 3
BIOSCI-177	General Anatomy and Physiology ‡ 4
ENG-196	Oral/Interpersonal Communication ‡ 3 (or) Any 200-level ENG or SPEECH course
FIRE-142	Firefighting Principles 4
FIRE-153	Hazmat Awareness and Operations 1
FIRE-156	Strategies, Tactics and Incident Management ‡ 3
EMS-192	EMT ^ 5
FIRE-114	Employability Skills ‡ 3
FIRE-144	Advanced Firefighting Principles ‡ 2
FIRE-194	Fire Protection Hydraulics ‡ 3
SOCSCI-172	Introduction to Diversity Studies 3 (or) SOCSCI-217 Valuing Diversity
FIRE-151	Fire Prevention ‡ 4
FIRE-154	Hazmat Chemistry ‡ 2
FIRE-157	Fire Investigation ‡ 3
FIRE-195	Fire Behavior and Combustion 3
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Emergency Medical Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Funeral Service

PROGRAM CODE: 10-528-1



Associate Degree



Location: West Allis Campus | **Start Dates:** August

Admission Requirement: This program admits students through a petition selection process; see this program's webpage at matc.edu to view petition process and all requirements. A minimum of 24 college credits in areas specified by the state examining board are required for admission into this program.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes. Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares you for a career as a licensed funeral director and embalmer in a profession that demands compassion, dedication and creativity.

American Board of Funeral Service Education Program Learning Outcomes

- Explain the importance of funeral service professionals in developing relationships with the families and communities they serve.
- Identify standards of ethical conduct in funeral service practice.
- Interpret how federal, state and local laws apply to funeral service in order to ensure compliance.
- Apply principles of public health and safety in the handling and preparation of human remains.
- Demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains.
- Demonstrate skills required for conducting arrangement conferences, visitations, services and ceremonies.
- Describe the requirements and procedures for burial, cremation and other accepted forms of final disposition of human remains.
- Describe methods to address the grief-related needs of the bereaved.
- Explain management skills associated with operating a funeral establishment.
- Demonstrate verbal and written communication skills and research skills needed for funeral service practice.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡	4
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
FUNERL-106 Thanatochemistry (or) Any 100-level or 200-level CHEM course	3
PSYCH-199 Psychology of Human Relations (or) Any 200-level PSYCH course	3
SOCSCI-197 Contemporary American Society (or) SOCSCI-210 Death and Dying or Any 200-level SOCSCI course	3
ACCTG-102 Basic Office Accounting (or) ACCTG-110 Financial Accounting or ACCTG-111 Accounting 1	3
BADM-165 Legal Environment of Business	3
BIOSCI-197 Microbiology ‡	4
ENG-196 Oral/Interpersonal Communication ‡ (or) Any 200-level ENG or SPEECH course except ENG-200 and ENG-201	3
FUNERL-104 Funeral Service Field Experience I ‡	2
FUNERL-110 Introduction to Funeral Service ‡	2
FUNERL-112 Laws, Rules and Regulations of Funeral Service ‡	3
FUNERL-114 Pathology of Funeral Service ‡	2
FUNERL-116 Funeral Service Practices ‡	4
FUNERL-121 National Board Exam Prep I ‡	1
FUNERL-134 Embalming Theory ‡	3
FUNERL-135 Embalming Lab 1 ‡	1
FUNERL-105 Funeral Service Field Experience II ‡	2
FUNERL-118 Funeral Service Management ‡	3
FUNERL-119 Embalming Lab 2 ‡	1
FUNERL-122 National Board Exam Prep II ‡	1
FUNERL-123 Restorative Art ‡	3
FUNERL-124 Restorative Art Lab ‡	1
FUNERL-136 Funeral Service Science ‡	2
FUNERL-137 Funeral Service Management Lab ‡	1
FUNERL-153 Psychology of Funeral Service ‡	3

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

The Funeral Service Program at MATC is accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097 (816) 233-3747. Web: www.abfse.org
National Board Passage rates for this program are available on the Funeral Service Program webpage. National Board Examination pass rates, graduation rates and employment rates for this and other ABFSE-accredited programs are available at www.abfse.org in the Directory of Accredited Programs.

The American Board of Funeral Service Education - Committee on Accreditation has reaccredited this program for a period of seven years (through October 2028).

Human Service Associate

PROGRAM CODE: 10-520-3



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, compliance with Wisconsin's Caregiver Law, able to pass caregiver background check

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Real-world experience will be part of your studies as you prepare for employment as a human services worker. Students can pursue special-interest areas such as working with youths, the elderly or people with addictions.

Career Outlook

Human service associates find careers with a range of agencies and programs that help people. Graduates work in community outreach programs, social agencies, counseling centers, educational institutions or correctional facilities.

Program Learning Outcomes

- Model a commitment to cultural competence.
- Uphold the Ethical Standards and Values for Human Service Professionals.
- Demonstrate professionalism.
- Utilize community resources.
- Apply human services interventions and best practices.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
AODA-109 Drug Use and Abuse.....	3
ENG-195 Written Communication ‡..... (or) ENG-201 English 1 ‡	3
HUMSVC-101 Introduction to Human Services ‡.....	3
HUMSVC-144 Ethics in the Human Service Professions ‡.....	3
ENG-196 Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
GEOSCI-112 Principles of Sustainability..... (or) Any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
HUMSVC-102 Interviewing Skills ‡.....	3
HUMSVC-103 Group Work Skills ‡.....	3
HUMSVC-113 Documentation and Record Keeping ‡.....	3
HUMSVC-118 Introduction to Gerontology.....	3
SOCSCI-197 Contemporary American Society..... (or) SOCSCI-203 Introduction to Sociology	3
ECON-195 Economics..... (or) Any 200-level ECON course	3
HUMSVC-104 Field Preparation ‡.....	1
HUMSVC-115 Methods of Social Casework ‡.....	3
HUMSVC-127 Disabilities and the Helping Profession.....	3
HUMSVC-142 Multicultural Competence in the Human Service Profession.....	3
ELECTIVES (Three credits).....	3
HUMSVC-106 Advanced Field Experience ‡.....	4
HUMSVC-107 Field Experience Seminar ‡.....	2
HUMSVC-121 Family Issues and Interventions ‡.....	3
PSYCH-188 Developmental Psychology..... (or) PSYCH-238 Lifespan Psychology	3
PSYCH-199 Psychology of Human Relations..... (or) PSYCH-231 Introductory Psychology	3

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Legal Studies/Paralegal

PROGRAM CODE: 10-110-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August, January and June

Admission Requirement: High school diploma or GED
Transfer of legal specialty coursework credit (PLEGAL designated courses) is accepted, subject to review by the Program Coordinator for course compatibility, only from ABA approved paralegal programs or from accredited law schools. Transfer is limited to a maximum of 15 credits.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

With coursework focused on the practical aspects of law, this program provides a broad background and prepares students to work as a paralegal in the legal community, in government, or in business and industry. At least 9 credits of legal specialty (PLEGAL) courses must be taken through synchronous instruction.

Career Outlook

Although this is a growing profession, competition in the job market is keen. Paralegals are required to work under the supervision of an attorney to avoid the unauthorized practice of law. Paralegals may not provide legal services directly to the public, except as permitted by law.

Program Learning Outcomes

- Apply ethical principles in a legal environment.
- Process legal documents.
- Perform legal research.
- Apply critical thinking skills to address legal issues.
- Demonstrate professionalism in a legal environment.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE		CREDITS
BADM-106	MS Office for Business Applications	3
ECON-195	Economics..... (or) Any 200-level ECON course	3
ENG-195	Written Communication ‡..... (or) ENG-201 English 1 ‡	3
OFTECH-103	Keyboard and Keypad.....	1
PLEGAL-101	Introduction to Paralegalism.....	3
ACCTG-102	Basic Office Accounting	3
BADM-165	Legal Environment of Business.....	3
ENG-196	Oral/Interpersonal Communication ‡..... (or) Any 200-level ENG or SPEECH course	3
PLEGAL-103	Legal Research ‡.....	3
PLEGAL-123	Corporate Practice Systems ‡.....	3
PLEGAL-140	Legal Interviewing/Investigation ‡.....	3
MATH-123	Math With Business Applications ‡..... (or) Any 200-level MATH course	3
PLEGAL-105	Civil Procedure ‡.....	3
PLEGAL-107	Legal Writing ‡.....	3
PLEGAL-114	Trusts and Estates – Probate Systems ‡.....	3
PLEGAL-121	Domestic Relations and Divorce Practice Systems ‡.....	3
PSYCH-199	Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
GEOSCI-112	Principles of Sustainability..... (or) Any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
PLEGAL-111	Litigation Practice Systems ‡.....	3
PLEGAL-116	Real Estate Law and Practice ‡.....	3
PLEGAL-118	Criminal Practice ‡.....	3
SOCSCI-197	Contemporary American Society	3
	(or) Any 200-level SOCSCI course	

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

It is recommended that PLEGAL-103 be taken before PLEGAL-107, and that PLEGAL-105 be taken before PLEGAL-111.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is approved by the American Bar Association, 321 North Clark Street, Chicago, IL 60654; 800-285-2221; americanbar.org/groups/paralegals/.

Nail Technician

PROGRAM CODE: 30-502-4



Technical Diploma



COURSE	CREDITS
NAILS-340 Manicuring Theory	4
NAILS-342 Introduction: Manicuring Practicum ‡.....	4
NAILS-343 Advanced: Manicuring Practicum ‡	4

CREDITS

Total credits needed to complete this diploma

12

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Students must complete NAILS-340, NAILS-342 and NAILS-343 in conjunction.

NAILS-342 kit must be purchased at the start of the semester.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is in compliance with:

State of Wisconsin Department of Safety and Professional Services

4822 Madison Yards Way

Madison, WI 53705; 608-266-2112;

<https://dsps.wi.gov/Pages/Professions/Manicurist/Default.aspx>.

Location: Downtown Milwaukee Campus, Mequon Campus

Start Dates: August, January and June

Admission Requirement: High school diploma or GED, or is at least 18 years old and meets eligibility criteria; is participating in a program approved by the Examining Board. Complete the program survey and orientation to register for courses.

Financial aid eligible: No.

Program Description

Learn the skills and knowledge needed to qualify to take the state manicurist license examination. You will develop professional skills in a salonlike setting. Instruction includes nail and skin disorders, manicuring and pedicuring, safety and sanitation, anatomy and physiology, applicable laws, and business and record management.

Career Outlook

Increases in nail care services in the last decade have led to solid, steady growth for this field.

Program Learning Outcomes

- Perform manicuring and pedicuring services.
- Perform nail enhancements.
- Develop business practices for industry success.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

Paramedic Technician

PROGRAM CODE: 10-531-1



Associate Degree



Location: Oak Creek Campus

Start Dates: August, January and June

Admission Requirement: Age 18 or older; state of Wisconsin Emergency Medical Technician or Advanced EMT license (current); CPR certification issued by a WI DHS EMS approved provider (current). Students must meet Wisconsin DHS—EMS Chapter 110.06 initial training requirements and eligibility criteria; and Wisconsin DHS Caregiver Background Check requirements. To complete the course, students must obtain a Wisconsin DHS—EMS Training Center Training Permit. After students are admitted to the program, information will be provided regarding the Wisconsin DHS Caregiver Background Check, Training Center Training Permit, immunizations including COVID vaccination and TB testing, and medical exam requirements. This program admits students through a petitioning process. See program webpage for details.

Transfer: Will transfer to one or more four-year institutions

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Paramedics provide advanced-level emergency and nonemergency medical support, primarily in prehospital settings and emergency departments. Learn strategies to assess and perform safe, appropriate care in both urgent and nonemergency situations.

Career Outlook

Employment of emergency medical technicians and paramedics has been projected to increase 25% nationally from 2010 to 2023. The need for EMTs and paramedics in rural areas and metropolitan areas is expected to increase.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
ELECTIVES (Three credits).....	3
EMS-911 EMS Fundamentals ‡ ^.....	2
EMS-912 Paramedic Medical Principles ‡ ^.....	4
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
EMS-913 Advanced Patient Assessment Principles ‡ ^.....	3
EMS-914 Advanced Prehospital Pharmacology ‡ ^.....	3
MATH-134 Mathematical Reasoning.....	3
(or) MATH-135 Qualitative Reasoning	
(or) Any 200-level MATH course	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
EMS-915 Paramedic Respiratory Management ‡ ^.....	2
EMS-916 Paramedic Cardiology ‡ ^.....	4
EMS-917 Paramedic Clinical/Field 1 ‡ ^.....	3
EMS-918 Advanced Emergency Resuscitation ‡ ^.....	1
EMS-919 Paramedic Medical Emergencies ‡ ^.....	4
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
SOCSCI-172 Introduction to Diversity Studies ^.....	3
(or) Any 200-level SOCSCI course	
EMS-920 Paramedic Trauma ‡ ^.....	3
EMS-921 Special Patient Populations ‡ ^.....	3
EMS-922 EMS Operations ‡ ^.....	1
EMS-923 Paramedic Capstone Assessment ‡ ^.....	1
EMS-924 Paramedic Clinical/Field 2 ‡ ^.....	4

CREDITS

Total credits needed to complete this degree

60

Program Learning Outcomes

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.

‡ Prerequisite required.

^ Counts toward earning the Emergency Medical Technician – Paramedic technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088; 214-703-8445; coaemsp.org.

Post-Baccalaureate Legal Studies/Paralegal

PROGRAM CODE: 30-110-2



Technical Diploma



COURSE	CREDITS
ENG-195* Written Communication ‡ (or) ENG-201 English 1 ‡	3
PLEGAL-101 Introduction to Paralegalism	3
PLEGAL-103 Legal Research ‡	3
PLEGAL-105 Civil Procedure ‡	3
PLEGAL-107 Legal Writing ‡	3
PLEGAL-111 Litigation Practice Systems ‡	3
PLEGAL-114 Trusts and Estates – Probate Systems ‡	3

CREDITS

Total credits needed to complete this diploma

21

Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August, January and June

Admission Requirement: Bachelor’s degree with at least 18 credits in Liberal Arts courses required; submit official college transcript to Downtown Milwaukee Campus Admissions Office. Transfer of legal specialty coursework credit (PLEGAL designated courses) is accepted, subject to review by Program Coordinator for course compatibility, only from ABA approved paralegal programs or accredited law schools. Transfer is limited to maximum of 9 credits.

Program Description

This program is designed for students who already have a bachelor’s degree with at least 18-credits in Liberal Arts courses. You will gain the foundation for a paralegal career in a law office, government agency, private organization or corporation. At least 9 credits of legal specialty (PLEGAL) legal courses must be taken through synchronous instruction.

Career Outlook

Typical job duties include conducting client interviews, obtaining case information, performing legal research, preparing and filing legal documents, and providing general assistance to attorneys. Paralegals are required to work under the supervision of an attorney and may not provide legal services directly to the public, except as permitted by law.

Program Learning Outcomes

- Apply ethical principles in a legal environment.
- Process legal documents.
- Perform legal research.
- Apply critical thinking skills to address legal issues.
- Demonstrate professionalism in a legal environment.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

‡ Prerequisite required, however, students admitted to the technical diploma program can register for paralegal specialty (PLEGAL) courses. Diploma students must request Prerequisite Waivers for the courses they wish to take via their Self-Service account.

Program curriculum requirements are subject to change.

* Students admitted to the technical diploma program should request that undergraduate credit be awarded for ENG-195.

It is recommended that PLEGAL-103 be taken prior to PLEGAL-107, and that PLEGAL-105 be taken prior to PLEGAL-111.

This program is approved by the American Bar Association
321 North Clark Street
Chicago, IL 60654; 800-285-2221
americanbar.org/groups/paralegals/.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Preschool

PROGRAM CODE: 61-307-1



Certificate



COURSE

CREDITS

CHILDD-148	ECE: Foundations of Early Childhood Education.....	3
CHILDD-167	ECE: Health, Safety and Nutrition	3
CHILDD-188	ECE: Guiding Child Behavior	3
CHILDD-108	ECE: Early Language and Literacy	3
CHILDD-160	ECE: Field Experience 1	3
CHILDD-179	ECE: Child Development	3

CREDITS

Total credits needed to complete this certificate

18

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: A high school diploma or GED. Documentation of compliance with Wisconsin's Caregiver Law. Proper immunizations and good health as evidenced by a medical examination. Practicum placement contingent upon results of criminal background check.

Program Description

Bilingual (Spanish) mode is offered at the West Allis Campus

Take this step to further develop your options in a child care career. After completing this certificate's coursework and an additional required course (CHILDD-175), you become eligible for The Registry Preschool credential.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

Water Technician

PROGRAM CODE: 61-506-1



Certificate



COURSE	CREDITS
ENVHEL-101 Introduction to Environmental Health/Water Quality	3
ENVHEL-109 Applied Environmental Chemistry	4
MATH-107 College Mathematics ‡	3
(or) Any 200-level MATH course	
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
ENVHEL-142 Principles of Water Resources	3

CREDITS

Total credits needed to complete this certificate

16

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one semester of high school-level algebra

Program Description

Gain the core skills recognized by the water industry for an entry-level position by performing basic hands-on work. This certificate is a pathway designed to help you progress in attaining more technical skills.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-570-4426 or servepathway@matc.edu

CREATIVE ARTS, DESIGN & MEDIA

Let MATC's Creative Arts, Design & Media Pathway prepare you to showcase your creative talents in the Milwaukee area and beyond. State-of-the-art classrooms, labs and equipment will provide you with hands-on instruction from your first day on campus, so you can develop a portfolio, gain career-related experience, and join a community of artistic professionals.

Pathway Offices

Downtown Milwaukee Campus, C Building, Room C204, **414-297-6004**

Mequon Campus, Room A108

Oak Creek Campus, Room A121

West Allis Campus, Room 103

creativeartspathway@matc.edu



Animation AD
Audio Engineer TD
Audio Production AD
Baking and Pastry Arts AD
Baking Production TD
Computer Simulation and Gaming AD
Culinary Arts AD
Culinary Assistant TD
Digital Content Creation AD
Digital Imaging TD
Food Service Assistant TD
Front-End Web Developer TD

Graphic Design AD
Interior Design AD
Music Occupations AD
Photography AD
Production Artist TD
Television and Video Production AD
TV Video Field Production Assistant TD
TV Video Studio Production Assistant TD
Unity Developer TD
Web & Digital Media Design AD



AD Associate Degree program
TD Technical Diploma program
C Certificate program

Animation

PROGRAM CODE: 10-207-1



Associate Degree



Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

MATC's unique facilities and the program's innovative curriculum offer a comprehensive background in animation. Students have opportunities to learn about 2D animation and 3D animation. Portfolio reviews in several courses are designed to assist you in compiling work samples to show employers.

Career Outlook

From visualization of architectural spaces to video games to effects in movies, animation is expanding.

Program Learning Outcomes

- Create an animated asset for a product.
- Build assets suitable for export and/or rendering to target platforms.
- Apply fundamental artistic concepts to the 3D environment.
- Implement project management skills.
- Apply ethical business practices WIP.
- Present a professional, quality portfolio.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
ANIM-101	Basic Drawing for Animators 3
ANIM-104	Principles of Character Development 3
ANIM-106	Principles of 3D Animation 3
CSG-115	CSG Production 3
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
ANIM-120	Environment and Set Design ‡ 3 (or) ANIM-114 Storyboard Pro ‡
ANIM-125	3D Modeling ‡ 3 (or) ANIM-138 Animation for Game Development ‡
ANIM-140	Timelines, Keyframes and Kinematics ‡ 3
ANIM-156	Broadcast Animation ‡ 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
ANIM-124	Animation Layout and Design ‡ 3
ANIM-130	3D Simulations and Illustrations ‡ 3
ANIM-145	Intermediate 3D Animation ‡ 3 (or) ANIM-121 Intermediate 2D Animation ‡
CSG-147	Game Studio Management 3
MATH-107	College Mathematics ‡ 3 (or) Any 200-level MATH course
ANIM-110	Digital Life Drawing 3
ANIM-150	Advanced Animation ‡ 2
ANIM-160	Animation Portfolio ‡ 2
ANIM-165	Motion Analysis for Animation ‡ 3
CSG-119	Designing Interactive Displays ‡ 3
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI course

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Audio Engineer

PROGRAM CODE: 30-701-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, demonstration of basic computer skills in the Mac OS, and the ability to lift, bend and move equipment

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Plan now for a sound future. You will learn to work with live sound at concerts, stage and church settings; studio recordings and studio engineering; field recordings; production of beats; and audio for gaming. This program prepares you for entry-level positions in the audio engineering field.

Career Outlook

Positions for audio engineers exist in live applications, commercial recording studios and home-recording production suites.

Program Learning Outcomes

- Apply technical and artistic skills for entry-level employment in the audio production industry.
- Apply critical listening and postproduction mastering skills to final audio mixes.
- Demonstrate the process of digitally blending multiple sources of audio using a mixing console.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
AUDIO-100	Introduction to Audio Software 1
AUDIO-102	Techniques of Sound Recording ‡ 3
AUDIO-117	Sound Reinforcement 3
ENG-195	Written Communication 3 (or) ENG-201 English 1 ‡
MUSIC-150	Music Theory 1 4
MUSIC-189	Voice Lab 1 1
AUDIO-103	Recording Live Concerts ‡ 3
AUDIO-111	Advanced Audio Software ‡ 1
AUDIO-116	Advanced Techniques of Sound Recording ‡ 3
AUDIO-126	Electronics for Audio Engineers ‡ 2
MUSIC-177	Piano Lab 1 1

CREDITS

Total credits needed to complete this diploma

25

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Audio Production

PROGRAM CODE: 10-701-4



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, demonstration of basic computer skills in the Mac OS, and the ability to lift, bend and move equipment

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Combining creative and practical aspects of sound and music, this program prepares you to enter the audio engineering field. Coursework covers working with live and recorded sound to provide more employment options.

Career Outlook

The explosion of social media and web use for independent artists, plus the increase in affordable digital audio workstations, present opportunities for audio engineers.

Program Learning Outcomes

- Produce and edit audio recordings using professional software and equipment.
- Apply studio management practices and standards.
- Apply critical listening and postproduction mastering skills to final audio mixes.
- Demonstrate the process of live mixing by blending multiple sources of digital audio using a mixing console.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
AUDIO-100	Introduction to Audio Software ^ 1
AUDIO-102	Techniques of Sound Recording ‡ ^ 3
AUDIO-103	Recording Live Concerts ‡ ^ 3
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
MUSIC-150	Music Theory 1 4
MUSIC-189	Voice Lab 1 ^ 1
AUDIO-111	Advanced Audio Software ‡ ^ 1
AUDIO-114	Critical Listening of Sound and Music 2
AUDIO-116	Advanced Techniques of Sound Recording ‡ ^ 3
AUDIO-117	Sound Reinforcement ^ 3
MATH-107	College Mathematics ‡ 3 (or) Any 200-level MATH course
MUSIC-177	Piano Lab 1 ^ 1
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
AUDIO-118	Studio Management and Design ‡ 2
AUDIO-120	Audio Production for Video Media 3
AUDIO-125	Advanced MIDI Recording ‡ 1
ENG-196	Oral/Interpersonal Communication ‡ 3 (or) Any 200-level ENG or SPEECH course
MUSIC-101	Music Business 2
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI or HIST course
AUDIO-126	Electronics for Audio Engineers ‡ ^ 2
AUDIO-127	Mastering for Media ‡ 3
AUDIO-128	Final Project – Field Work ‡ 3
ELECTIVES	(Four credits) 4
MKTG-118	Social Media Marketing 3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Audio Engineer technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Baking and Pastry Arts

PROGRAM CODE: 10-314-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, ability to lift up to 50 pounds and the purchase of pastry tool kit and uniform also required for this program

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn techniques of producing artisan breads, pastries, celebration cakes, confections and showpieces. You will have the opportunity to learn firsthand how to run a successful bakery/café operation from the front and back of the house. Students completing the Baking and Pastry Arts associate degree technical coursework receive the Certified Pastry Culinarian title from the American Culinary Federation.

Career Outlook

Employment in the food preparation sector is expected to increase throughout the United States, including a growing demand for specialty products.

Program Learning Outcomes

- Demonstrate baking and pastry skills.
- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Analyze food service financial information.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
BAKING-120 Basic Baking Techniques ‡ ^	3
BAKING-122 Baking Principles and Ingredient Functions ^	3
CULART-100 Introduction to Food Service/Hospitality Industry ‡	1
CULART-117 Nutrition for Culinary Arts ^	1
CULART-118 Sustainable Food Communities	1
CULMGT-112 Food Service Sanitation ^	2
MATH-134 Mathematical Reasoning ^	3
(or) Any 200-level MATH course	
BAKING-101 Specialty Baking and Pastry Techniques ‡ ^	3
BAKING-125 Artisan Breads ‡ ^	3
BAKING-129 Healthy and Natural Baking ‡ ^	2
BAKING-130 Field Experience in Baking and Pastry Arts ‡ ^	1
CULMGT-105 Culinary Math and Cost Control ^	3
ENG-195 Written Communication ‡ ^	3
(or) ENG-201 English 1 ‡	
BAKING-108 Hotel and Restaurant Dessert Production ‡	2
BAKING-113 Cake Decorating, Icing and Fondant ‡	3
BAKING-131 Baking and Classical Cakes ‡	2
CULART-109 Garde Manger 1 ‡	1
CULART-116 Mise en Place/Culinary Fundamentals ‡	2
CULART-122 Stocks, Soups and Sauces ‡	1
ENG-196 Oral/Interpersonal Communication ‡ ^	3
(or) Any 200-level ENG or SPEECH course	
SOCSCI-103 Think Critically and Creatively	3
(or) Any 200-level SOCSCI or HIST course	
BAKING-107 Café Operations ‡	5
BAKING-127 Chocolate, Confections and Sugar Work ‡	3
HOTEL-133 Supervision in Hospitality Industry	3
PSYCH-199 Psychology of Human Relations	3
(or) Any 200-level PSYCH course	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Baking Production technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC), 6816 Southpoint Parkway, Suite 400 Jacksonville FL 32216; 904-824-4468 acfcchefs.org/accreditation.

Baking Production

PROGRAM CODE: 31-314-2



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, ability to lift up to 50 pounds and the purchase of a pastry tool kit and uniform also required for this program

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn to produce and prepare pies, cookies, cakes, breads and other goods in a variety of baking environments, such as in-store and independent bakeries, large commercial bakeries and restaurants.

Career Outlook

Graduates typically find employment in retail or commercial bakeries. Employers will expect graduates to safely use equipment, to mix batters and doughs, and to skillfully decorate baked goods.

Program Learning Outcomes

- Safe use of hand and power tools in the bakery.
- Scaling ingredients for accurate portioning.
- Mixing and handling batters and doughs.
- Applying icing to baked products.
- Preparation of fancy breads, dinner rolls, layer cakes, tortes, petit fours and cookies.
- Converting standard recipes and portion control formulas.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
BAKING-120 Basic Baking Techniques ‡.....	3
BAKING-122 Baking Principles and Ingredient Functions	3
CULART-117 Nutrition for Culinary Arts.....	1
CULMGT-112 Food Service Sanitation.....	2
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
MATH-134 Mathematical Reasoning	3
(or) Any 200-level MATH course	
BAKING-101 Specialty Baking and Pastry Techniques ‡	3
BAKING-125 Artisan Breads ‡.....	3
BAKING-129 Healthy and Natural Baking ‡.....	2
BAKING-130 Field Experience in Baking and Pastry Arts ‡	1
CULMGT-105 Culinary Math and Cost Control.....	3
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	

CREDITS

Total credits needed to complete this diploma

30

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Computer Simulation and Gaming

PROGRAM CODE: 10-153-1



Associate Degree



Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and demonstration of basic computer skills in OS, word processing and the internet

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for a career in animation and gaming, plus attain skills transferable to other industries such as computer programming, multimedia development and film production. Students have opportunities to focus on game design or programming.

Career Outlook

Testers, designers and producers are in demand as the use of this technology increases rapidly. New games are continually in production, and computer simulations are used as educational and training tools in schools and businesses.

Program Learning Outcomes

- Create an animated asset for a product.
- Build assets suitable for export and/or rendering to target platforms.
- Apply fundamental artistic concepts to the 3D environment.
- Implement project management skills.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
CSG-110	Introduction to Computer Simulation and Gaming ^ 3
CSG-114	Introduction to Game Development/Programming ^ 3 (or) CSG-131 Introduction to Game Design
CSG-115	CSG Production ^ 3
CSG-117	Game Logic and Problem-Solving ^ 3
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
CSG-118	Game Engine Scripting ‡ ^ 3
CSG-120	Interactive Display Production 1 ^ 1
CSG-127	Agile Project Management 3
CSG-128	Intermediate Game Development Programmer ‡ ^ 3 (or) CSG-133 Intermediate Game Design ‡
CSG-129	CSG Architecture ‡ 2
CSG-130	CSG Design ‡ 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG course
CSG-179	CSG API Programming ‡ ^ 4
CSG-181	CSG Collaborative Lab ‡ 4
CSG-185	Data Structures for Game Developers ‡ 3 (or) CSG-138 Advanced Game Design ‡
MATH-107	College Mathematics ‡ ^ 3 (or) Any 200-level MATH course
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
ANIM-160	Animation Portfolio ‡ 2
CSG-119	Designing Interactive Displays ‡ ^ 3
CSG-132	Artificial Intelligence ‡ 3
CSG-180	Multimedia Collaborative Lab ‡ 3
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI course

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Unity Developer technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Culinary Arts

PROGRAM CODE: 10-316-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program fuses the art and science of cooking with an introduction to business management. You will learn how to run a food-service operation by participating in the on-campus Cuisine restaurant, International Foods lunch service, and business and industry kitchens. Students completing the Culinary Arts associate degree technical coursework receive the Certified Culinarian title from the American Culinary Federation.

Career Outlook

Graduates are highly employable as cooks and management trainees.

Program Learning Outcomes

- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Demonstrate culinary skills.

This program is accredited by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC), 6816 Southpoint Parkway, Suite 400 Jacksonville FL 32216; 904-824-4468 acfcchefs.org/accreditation.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
CULART-100 Introduction to Food Service/Hospitality Industry ‡ ^.....	1
CULART-116 Mise en Place/Culinary Fundamentals ‡ ^.....	2
CULART-117 Nutrition for Culinary Arts ^	1
CULART-118 Sustainable Food Communities ^	1
CULMGT-112 Food Service Sanitation ^	2
MATH-134 Mathematical Reasoning	3
(or) Any 200-level MATH course	
SOCSCI-103 Think Critically and Creatively	3
(or) Any 200-level SOCSCI or HIST course	
CULART-103 Culinary Arts Practicum ‡.....	2
CULART-107 Field Experience in Food Service/Hospitality ‡	1
CULART-122 Stocks, Soups and Sauces ‡	1
CULART-124 Meat Identification and Fabrications ‡.....	1
CULART-126 Seafood/Shellfish Cookery ‡	1
CULART-128 Vegetables, Starches and Grains ‡	1
CULMGT-101 Menu Planning and Design	2
CULMGT-105 Culinary Math and Cost Control.....	3
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
BAKING-135 Baking for Culinarians ‡	3
CULART-114 Food Advocacy ‡	4
CULART-134 American Regional Cuisine ‡.....	1
CULART-135 European and Mediterranean Cuisine ‡	1
CULART-136 Asian Cuisine ‡.....	1
CULART-137 South and Central American Cuisine ‡	1
CULMGT-102 Food and Beverage Procurement ‡.....	2
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
CULART-105 Dining Room Service ‡	2
CULART-106 Contemporary Restaurant Cooking ‡.....	4
CULART-109 Garde Manger 1 ‡	1
CULART-111 Garde Manger 2 ‡	1
CULART-138 Restaurant Operations ‡.....	2
HOTEL-133 Supervision in the Hospitality Industry.....	3
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Food Service Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Culinary Assistant

PROGRAM CODE: 31-316-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

You will learn basic theory and techniques of food production and service through a combination of lecture, demonstration and hands-on experience. The program is designed to prepare students for entry-level employment in the food service industry.

Career Outlook

Graduates typically are employed as cooks and management trainees. With experience, opportunities exist for advancement to chef and/or manager.

Program Learning Outcomes

- Apply principles of safety and sanitation in food service operations.
- Apply basic principles of nutrition.
- Demonstrate basic culinary skills.
- Assist in food service management.
- Plan menus.
- Relate food service operations to sustainability.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
CULART-100 Introduction to Food Service/Hospitality Industry ‡ ^.....	1
CULART-116 Mise en Place/Culinary Fundamentals ‡ ^.....	2
CULART-117 Nutrition for Culinary Arts ^	1
CULART-118 Sustainable Food Communities ^	1
CULMGT-112 Food Service Sanitation ^	2
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
MATH-134 Mathematical Reasoning	3
(or) Any 200-level MATH course	
CULART-107 Field Experience in Food Service/Hospitality Industry ‡	1
CULART-114 Food Advocacy ‡	4
CULART-103 Culinary Arts Practicum ‡	2
CULART-122 Stocks, Soups and Sauces ‡	1
CULART-124 Meat Identification and Fabrications ‡	1
CULART-126 Seafood/Shellfish Cookery ‡	1
CULART-128 Vegetables, Starches and Grains ‡	1
CULMGT-101 Menu Planning and Design	2
CULMGT-105 Culinary Math and Cost Control.....	3

CREDITS

Total credits needed to complete this diploma

29

‡ Prerequisite required.

^ Counts toward earning the Food Service Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Digital Content Creation

PROGRAM CODE: 10-701-3



Associate Degree



COURSE	CREDITS
TV-101	TV/Video Studio Production Techniques ‡ 4
TV-181	Video in Society ‡ 1
DCC-150	Intro to Digital Content Creation ‡ 3
DCC-170	Media Design Elements ‡ 2
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
PSYCH-199	Psychology of Human Relations 3 (or) any 200 level PSYCH course
TV-105	TV/Video Field Production Techniques ‡ 4
TV-112	Storytelling Via Post-Product ‡ 3
DCC-152	Intermediate Digital Content Techniques ‡ 3
ENG-197	Technical Reporting ‡ 3 or any 200 level ENG or SPEECH course
DCC-153	Digital Content Creation Practicum ‡ 3
DCC-158	Data Content Management ‡ 1
DCC-159	Streaming Content Creation ‡ 2
DCC-154	Digital Content Engagement ‡ 3
TV-107	Scriptwriting for Visual Media ‡ 3
TV-142	Intermediate Non-Linear Video Editing ‡ 3
TV-106	Grip/Gaffing & Camera Support ‡ 2
MATH-107	College Mathematics ‡ 3 (or) any 200 level MATH course
DCC-171	Digital Engineering Principles ‡ 1
DCC-155	Advanced Techniques/Digital Content Creation ‡ 3
TV-149	MCA CO-OP 1 ‡ 3
TV-132	Advanced Non-Linear Editing ‡ 3
TV-109	Techniques for Field Audio Acquisition ‡ 2
SOCSCI-197	Contemporary American Society 3 (or) any 200 level SOCSCI course

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

To begin a career in producing on-demand visual media content, this degree prepares you to distribute high-quality video content for the internet, smartphones and other interactive technologies. You will learn how to acquire, edit and recode media for multiple delivery platforms, and gain hands-on experience at Milwaukee PBS studios.

Career Outlook

Electronic production of on-demand content is growing as businesses strive to reach consumers via new technologies.

Program Learning Outcomes

- Apply the principles of design and storytelling to develop media products and services.
- Demonstrate proficiency in the use of media software, tools and technology.
- Manage a production from concept through completion.
- Communicate creative rationale in formal and informal settings.
- Apply ethical business practices.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the TV/Video Field Production Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Digital Imaging

PROGRAM CODE: 30-203-2



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, demonstration of basic computer skills in the Mac OS, and the ability to lift, bend, and move equipment. A professional DSLR or mirrorless camera with interchangeable lenses and full manual controls.

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Focus on photography techniques and industry trends for composition, lighting and image manipulation as you prepare to enter the digital imaging field with the skills attained in this program.

Career Outlook

As the industry continues to evolve, new job opportunities exist in professional-level still and video photography.

Program Learning Outcomes

- Apply pre-planning skill in proper conceptual development, photo equipment choices and lighting design before executing the plan.
- Demonstrate proficiency in a variety of industry software tools and techniques, including graphic software, digital video and color management software
- Demonstrate proficiency in evaluating a variety of web creation sites and developing appropriate content.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
PHOTO-100 Introduction to Digital Photography	1
PHOTO-101 Digital Fundamental Photography.....	3
PHOTO-107 Photographic Trends.....	1
PHOTO-141 Photoshop for Photographers 1	3
MATH-123 Math With Business Applications ‡..... (or) Any 200-level MATH course	3
PHOTO-108 Photographic Lighting ‡.....	3
PHOTO-130 Photographic Composition.....	3
PHOTO-139 Measurement Techniques ‡.....	3
PHOTO-142 Photoshop for Photographers 2 ‡	3

CREDITS

Total credits needed to complete this diploma

26

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Food Service Assistant

PROGRAM CODE: 30-316-1



Technical Diploma



COURSE	CREDITS
CULART-100 Introduction to Food Service/Hospitality Industry ‡	1
CULART-116 Mise en Place/Culinary Fundamentals ‡	2
CULART-117 Nutrition for Culinary Arts.....	1
CULART-118 Sustainable Food Communities	1
CULMGT-112 Food Service Sanitation.....	2

CREDITS

Total credits needed to complete this diploma

7

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: No.

Program Description

Here's your recipe for learning to prepare and cook a variety of foods that require a short preparation time. This one-semester program focuses on developing skills to begin a career in the food service industry.

Career Outlook

Graduates will have entry-level skills for taking orders, serving customers and performing a variety of food preparation duties.

Program Learning Outcomes

- Demonstrate the ability to clean food-preparation areas, cooking surfaces and utensils according to industry standards.
- Differentiate proper handling of prepared-to-order food compared to food that is kept warm until sold.
- Assist cooks and kitchen staff with various tasks as needed.
- Cut, slice or grind meat, poultry and seafood to prepare for cooking.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

Front-End Web Developer

PROGRAM CODE: 31-206-1



Technical Diploma



COURSE		CREDITS
ENG-195	Written Communication ‡ (or) ENG-201 English 1 ‡	3
ITDEV-117	Logic and Problem-Solving.....	3
MKTG-165	Digital Marketing.....	3
WEBDEV-102	Introduction to Digital Media.....	3
WEBDEV-114	Web Development With HTML/CSS	3
WEBDEV-119	Web Design Overview ‡.....	3
WEBDEV-123	Interactive Design ‡.....	3
WEBDEV-124	Database Web Design With PHP and MySQL ‡.....	3
WEBDEV-133	Content Management Systems ‡.....	3
WEBDEV-134	Responsive Web Design ‡ (or) WEBDEV-132 Rich Media for the Web ‡	3
WEBDEV-140	Web Development With JavaScript and jQuery ‡	3

CREDITS **33**
Total credits needed to complete this diploma

‡ Prerequisite required.
Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Online Campus
Start Dates: August and January
Admission Requirement: High school diploma or GED and demonstration of basic computer skills in operating systems, word processing and the internet
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

To prepare for this field's ever-changing technology, you will attain in-depth skills in web design, design tools and web development languages. Coursework includes web marketing and the designing and publishing of several websites using multiple web development languages.

Career Outlook

Demand for web designers and web developers is growing steadily as more businesses and organizations rely on functional and flexible websites.

Program Learning Outcomes

- Design websites or applications.
- Utilize essential data technologies.
- Develop user interfaces.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

Graphic Design

PROGRAM CODE: 10-201-1



Associate Degree



Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

You will be introduced to the range of opportunities in this field: design of print-generated and computer-generated graphics for books, newspapers, magazines, web applications and marketing materials; and additional design applications for point-of-purchase, packaging and outdoor advertising.

Career Outlook

Today's digital world reduces the geographic limits for finding clients. Employers include advertising agencies, corporations and nonprofit groups.

Program Learning Outcomes

- Apply the principles of design to develop strategic marketing and communication products and services.
- Demonstrate proficiency in the use of design software, tools, and technology.
- Implement creative solutions from concept through completion using a formal process.
- Apply effective legal and ethical business practices and project management skills.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
GRDS-103	Design Elements and Principles ^ 3
GRDS-107	Digital Imaging: Adobe Photoshop ^ 3
GRDS-115	Typographic Fundamentals ^ 3
GRDS-122	Vector Graphics: Adobe Illustrator ^ 3
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
GRDS-104	Researching and Concepting ‡ ^ 3
GRDS-110	Layout and Publishing: InDesign ‡ ^ 3
GRDS-111	Advertising Design ‡ ^ 3
GRDS-117	Packaging Design ‡ ^ 3
GRDS-128	Portfolio Pathway ‡ ^ 1
GRDS-121	Exhibition Design ‡ 3
GRDS-126	History of Design 3
GRDS-129	Motion Graphic Design ‡ 3
GRDS-142	Brand and Media Strategies 3
MATH-134	Mathematical Reasoning 3 (or) Any 200-level MATH course
GRDS-112	Graphic Design Workshop ‡ 3
GRDS-113	Digital Media Preparation ‡ 3
GRDS-116	Integrated Design Thinking ‡ 3
GRDS-153	Portfolio Assessment ‡ 3
SOCSCI-172	Introduction to Diversity Studies 3 (or) Any 200-level SOCSCI or HIST course

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Production Artist technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Interior Design

PROGRAM CODE: 10-304-1



Associate Degree



Location: Online Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and demonstration of proficiency in basic computer skills or completion of COMPSW-106

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Interior designers use creativity, technical knowledge and aesthetics to create solutions that improve the function and quality of interior environments. Coursework includes manual and computer-aided design (CAD) drawing and commercial and residential planning.

Career Outlook

Employment in the kitchen and bath design and remodeling industry remains strong. Continued growth is expected in corporate interiors, healthcare and facilities design.

Program Learning Outcomes

- Integrate codes that impact the interior environment.
- Integrate industry guidelines that impact the interior environment.
- Apply interior design business practices.
- Apply design process to interior design projects.
- Design within the parameters of the built environment.
- Apply fundamentals of design.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
ECON-195 Economics.....	3
(or) Any 200-level ECON course	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
INDSGN-100 Introduction to Interior Design	3
INDSGN-102 Basic Architectural Drawing	3
INDSGN-104 Interior Elements of Building Construction	3
INDSGN-106 Materials and Furniture Design.....	3
ENG-197 Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
INDSGN-108 Residential Studio ‡.....	3
INDSGN-110 Advanced Architectural Drawing ‡	3
INDSGN-113 Textiles: Science, Application and Design.....	3
INDSGN-114 Color and Light ‡.....	3
MATH-107 College Mathematics ‡.....	3
(or) Any 200-level MATH course	
INDSGN-116 Kitchen and Bath Design ‡	3
INDSGN-118 Commercial Studio ‡.....	3
INDSGN-120 Interior Design Internship ‡	1
INDSGN-122 Styles of Furniture and Architecture ‡.....	3
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
ELECTIVES (Three credits).....	3
INDSGN-124 Advanced Commercial Studio ‡.....	3
INDSGN-128 Designer/Client Relationships	3
INDSGN-131 Portfolio Development and Application ‡.....	3
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level HIST or SOCSCI course	

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Music Occupations

PROGRAM CODE: 10-805-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for a career in music by developing your skills as a well-rounded musician. Areas of study include theory fundamentals such as reading, analysis, composition, ear training and more. Students have opportunities to focus on performance or composition courses.

Career Outlook

In preparation for a career in music, the program is designed to develop your skills as a well-rounded musician while focusing on your primary instrument.

Program Learning Outcomes

- Create an arrangement for an existing piece of music using genre-specific, appropriate stylings.
- Demonstrate collaborative musicianship skills in rehearsal and performance settings.
- Demonstrate proficiency in the use of industry notation software for arranging and composition applications.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
MUSIC-103 Major Instrument 1	1
MUSIC-143 Music Notation 1	1
MUSIC-150 Music Theory 1.....	4
MUSIC-162 Music Ensemble 1	1
(or) AUDIO-100 Introduction to Audio Software	
MUSIC-173 Music Reading.....	1
MUSIC-177 Piano Lab 1	1
MUSIC-189 Voice Lab 1	1
MUSIC-190 Choir 1	1
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
MATH-107 College Mathematics ‡.....	3
(or) Any 200-level MATH course	
MUSIC-101 Music Business	2
MUSIC-104 Major Instrument 2 ‡.....	1
MUSIC-118 Music Analysis ‡	3
MUSIC-120 Choir 2	1
MUSIC-144 Music Notation 2	1
MUSIC-151 Music Theory 2 ‡	4
MUSIC-163 Music Ensemble 2 ‡.....	1
(or) AUDIO-125 Advanced MIDI Recording ‡	
MUSIC-178 Piano Lab 2 ‡	1
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
MUSIC-105 Major Instrument 3 ‡.....	1
(or) MUSIC-108 Film Scoring 1	
MUSIC-141 Music Ensemble 3 ‡.....	1
(or) MUSIC-107 Songwriting 1	
MUSIC-152 Composition 1 ‡.....	3
MUSIC-167 Improvisation 1 ‡.....	1
(or) MUSIC-158 Orchestration 1 ‡	
MUSIC-174 Ear Training 1 ‡.....	2
MUSIC-181 Conducting ‡.....	1
MUSIC-191 Performance Techniques 1 ‡.....	3
(or) MUSIC-182 Composition for Advertising	
ELECTIVES (Three credits).....	3
MUSIC-106 Major Instrument 4 ‡.....	1
(or) MUSIC-147 Songwriting 2 ‡	
MUSIC-119 Music Ensemble 4 ‡.....	1
(or) MUSIC-159 Orchestration 2 ‡	
MUSIC-125 Music Studio Teaching Methods ‡.....	1
(or) MUSIC-109 Film Scoring 2 ‡	
MUSIC-153 Composition 2 ‡.....	3
MUSIC-184 Ear Training 2 ‡.....	2
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level HIST or SOCSCI course	

CREDITS

Total credits needed to complete this degree

63

Photography

PROGRAM CODE: 10-203-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED; demonstration of basic computer skills in the Mac OS; the ability to lift, bend, and move equipment; and professional DSLR or mirrorless camera with interchangeable lenses and full manual controls

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Use professional equipment and methods to master the skills necessary for this highly visual, creative and exacting profession. MATC's laboratory/studio areas have state-of-the-art traditional and digital cameras, lighting, processing, and finishing equipment. Program requirements include an internship for real-world experience.

Career Outlook

Photographers work in advertising, photojournalism, and industrial and portrait photography. Employment opportunities also include equipment sales.

Program Learning Outcomes

- Apply the principles of design and storytelling to develop media products and services.
- Demonstrate proficiency in the use of media software, tools and technology.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
PHOTO-100	Introduction to Digital Photography ^ 1
PHOTO-101	Digital Fundamental Photography ^ 3
PHOTO-107	Photographic Trends ^ 1
PHOTO-141	Photoshop for Photographers 1 ^ 3
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
MATH-123	Math With Business Applications ‡ ^ 3 (or) Any 200-level MATH course
PHOTO-108	Photographic Lighting ‡ ^ 3
PHOTO-130	Photographic Composition ^ 3
PHOTO-139	Measurement Techniques ‡ ^ 3
PHOTO-142	Photoshop for Photographers 2 ‡ ^ 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
PHOTO-103	Digital Photography ‡ 3
PHOTO-106	View Camera Techniques ‡ 3
PHOTO-121	Commercial Photography ‡ 3
PHOTO-124	Portraiture ‡ 3
SOCSCI-103	Think Critically and Creatively 3 (or) Any 200-level SOCSCI or HIST course
ECON-195	Economics 3 (or) Any 200-level ECON course
PHOTO-114	Photographic Portfolio ‡ 3
PHOTO-166	Photographic Management ‡ 1
PHOTO-173	Photojournalism ‡ 3
PHOTO-180	DSLR Video ‡ 3
PHOTO-190	Photography Internship ‡ 1

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

^ Counts toward earning the Digital Imaging technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Production Artist

PROGRAM CODE: 31-201-2



Technical Diploma



COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
GRDS-103	Design Elements and Principles..... 3
GRDS-107	Digital Imaging: Adobe Photoshop 3
GRDS-115	Typographic Fundamentals..... 3
GRDS-122	Vector Graphics: Adobe Illustrator 3
GRDS-104	Researching and Concepting ‡ 3
GRDS-110	Layout and Publishing: InDesign ‡ 3
GRDS-111	Advertising Design ‡ 3
GRDS-117	Packaging Design ‡ 3
GRDS-128	Portfolio Pathway ‡ 1

Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

28

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

Gain the skills in industry-recognized software required for entering the graphic design field. You will learn to prepare designs and layouts, and make modifications according to production standards.

Career Outlook

Production artists use their technical skills to ensure that the finished design work meets the client's expectations. They are typically the last people to work on a project before it is published. This growing segment of the creative industry offers entry into a variety of careers.

Program Learning Outcomes

- Apply the principles of design to develop strategic marketing and communications products and services.
- Demonstrate proficiency in the use of design software, tools and technology.
- Implement creative solutions from concept through completion using a formal process.
- Communicate artwork rationale in formal and informal settings.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

Television and Video Production

PROGRAM CODE: 10-701-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED, one year of high school-level algebra, ability to work outside normal school hours

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for a career in the production, operation and programming areas of broadcast television, cable, or corporate and commercial video. You will gain hands-on experience in the high-definition studios of Milwaukee PBS, a leader in HDTV production.

Career Outlook

Graduates have an excellent entry-level employment history in a competitive field. Potential employers are TV stations, cable systems, advertising agencies, private industry, educational institutions and video production houses.

Program Learning Outcomes

- Apply the principles of design and storytelling to develop media products and services.
- Demonstrate proficiency in the use of media software, tools and technology.
- Implement creative solutions from concept through completion.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
TV-101	TV/Video Studio Production Techniques ‡ ^ 4
TV-181	Video in Society ^ 1
DCC-150	Introduction to Digital Content Creation ^ 3
TV-108	TV Studio Lighting Techniques ‡ 2
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
TV-105	TV/Video Field Production Techniques ‡ 4
TV-112	Storytelling Via Post-Production ‡ 3
TV-121	TV and Video Production Workshop 1 ‡ ^ 3
TV-107	Script Writing for Visual Media ^ 3
TV-160	Introduction to Operational Engineering 1
MATH-107	College Mathematics ‡ ^ 3 (or) Any 200-level MATH course
TV-110	Advanced Production Techniques ‡ 4
TV-161	Intermediate Operational Engineering ‡ 2
TV-142	Intermediate Non-Linear Video Editing ‡ 3
TV-109	Techniques for Field Audio Acquisition ‡ 2
TV-104	TV Studio/Field Set Design ‡ 2 (or) DCC-170 Media Design Elements ‡
ENG-197	Technical Writing ‡ 3 (or) any 200-level English
TV-115	Advanced Broadcast Program Production ‡ 4
TV-123	TV and Video Production Co-Op 1 ‡ ^ 3
DCC-158	Data Content Management 1
DCC-152	Intermediate Digital Content Techniques ‡ 3
TV-106	Lighting, Gaffing and Gripping ‡ 2
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI or HIST course

CREDITS

Total credits needed to complete this degree

65

‡ Prerequisite required.

^ Counts toward earning the TV/Video Studio Production Assistant technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

TV/Video Field Production Assistant

PROGRAM CODE: 31-701-1



Technical Diploma



COURSE	CREDITS
TV-105 TV/Video Field Production Techniques ‡	4
DCC-158 Data Content Management	1
DCC-159 Audio/Digital Storytelling	2
DCC-152 Intermediate Digital Content Techniques ‡	3
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
TV-101 TV/Video Studio Production Techniques ‡	4
TV-181 Video in Society ‡	1
DCC-150 Intro to Digital Content Creation	3
DCC-171 Digital Engineering Principles ‡	1
ENG-197 Technical Writing ‡ (or) any 200-level English	3

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

To get ready for cameras and action, you will gain skills in the basics of field-based production, location lighting, high-definition field camera operation, and principles of non-linear editing and content distribution. Courses are taught in the Milwaukee PBS studios for real-world experience. This program prepares students for on-location, video production entry-level positions.

Career Outlook

With video so pervasive in our society, individuals well-versed in TV and video field production are in demand to help capture and deliver stories to the audience.

Program Learning Outcomes

- Apply basic principles of design and storytelling to studio and field productions.
- Demonstrate proficiency in the use of basic media software, tools, and technology.
- Assist in production from concept to completion.
- Communicate creative rationale in formal and informal settings.
- Apply ethical business practices.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

CREDITS

Total credits needed to complete this diploma

25

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

TV/Video Studio Production Assistant

PROGRAM CODE: 31-701-2



Technical Diploma



COURSE	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
TV-101 TV/Video Studio Production Techniques ‡	4
TV-181 Video in Society.....	1
TV-108 TV Studio Lighting Techniques ‡.....	2
DCC-150 Introduction to Digital Content Creation.....	3
TV-160 Intro Operational Engineering ‡	1
TV-112 Storytelling Via Post-Product ‡.....	3
TV-121 TV and Video Production Workshop 1 ‡.....	3
TV-107 Script Writing for Visual Media	3
TV-105 TV/Video Field Production Techniques ‡.....	4
MATH-107 College Mathematics ‡..... (or) Any 200-level MATH course	3

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

30

Program Description

Spotlight your future in the broadcasting industry with the skills attained through this program. You will learn the basics of television and video studio production through courses taught in Milwaukee PBS studios. Areas of study include production, studio lighting, studio camera operation and general TV engineering principles.

Career Outlook

Studios for cable channels, educational facilities and corporate video studios offer employment opportunities.

Program Learning Outcomes

- Apply basic principles of design and storytelling to studio and field productions.
- Demonstrate proficiency in the use of basic media software, tools and technology.
- Assist in production from concept to completion.
- Communicate creative rationale in formal and informal settings.
- Apply ethical business practices.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Unity Developer

PROGRAM CODE: 31-153-1



Technical Diploma



COURSE	CREDITS
CSG-110	Introduction to Computer Simulation and Gaming..... 3
CSG-114	Introduction to Game Development/ Programming 3
CSG-115	CSG Production 3
CSG-117	Game Logic and Problem-Solving..... 3
MATH-107	College Mathematics ‡ 3 (or) Any 200-level MATH course
CSG-118	Game Engine Scripting ‡ 3
CSG-119	Designing Interactive Displays ‡ 3
CSG-120	Interactive Display Production 1 1
CSG-128	Intermediate Game Development Programmer ‡ 3
CSG-179	CSG API Programming ‡ 4

Location: Downtown Milwaukee Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, high school-level algebra

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

29

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

Make MATC your first choice for learning about 3D software. Through this program, you will develop the skills necessary to learn the Unity 3D software creation tool, which is used to develop simulations, video games, training programs and educational software.

Career Outlook

Learning the fundamentals of Unity 3D prepares you to develop for multiple consoles and platforms, especially personal computer, web and mobile applications in 2D and 3D.

Program Learning Outcomes

- Demonstrate the ability to create and manipulate assets using the Unity 3D engine.
- Create understandable and fluid GUI elements.
- Apply 3D math knowledge of transforms, coordinate systems and interpolation.
- Apply object-oriented principles in designing systems and scripting.
- Demonstrate the ability to contribute to all aspects of development on a multidisciplinary team.



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

Web & Digital Media Design

PROGRAM CODE: 10-201-3



Associate Degree



Location: Downtown Milwaukee Campus, Oak Creek Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, demonstration of basic computer skills in operating systems, word processing and the internet

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

MATC's coursework in interface design, responsive web design, user experience and website development through coding with HTML, CSS, JavaScript, PHP/MySQL, etc., offer a comprehensive background in web design and front-end web development.

Career Outlook

Skills in web design, front-end web development and user experience are in demand and are projected to continue to grow rapidly in the next decade.

Program Learning Outcomes

- Design websites to meet client expectations.
- Produce site(s) using content management systems (CMS).
- Manage a project using user experience (UX) principles.
- Communicate rationale.
- Develop project documents.
- Develop website(s).



Complete Program Details

QUESTIONS? 414-297-6004 or creativeartspathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ ^ 3
ITDEV-117	Logic and Problem-Solving ^ 3
WEBDEV-102	Introduction to Digital Media ^ 3
WEBDEV-114	Web Development With HTML/CSS ^ 3
WEBDEV-119	Web Design Overview ‡ ^ 3
MATH-123	Math With Business Applications ‡ 3
WEBDEV-120	Audio and Video Production for the Web 3
WEBDEV-123	Interactive Design ‡ ^ 3
WEBDEV-124	Database Web Design With PHP and MySQL ‡ ^ 3
WEBDEV-143	User Experience - UE 2.0 3
ENG-197	Technical Reporting ‡ 3
WEBDEV-132	Rich Media for the Web ‡ 3
WEBDEV-133	Content Management Systems ‡ ^ 3
WEBDEV-134	Responsive Web Design ‡ ^ 3
WEBDEV-135	User Experience for the Web 3
MKTG-165	Digital Marketing ^ 3
PSYCH-199	Psychology of Human Relations 3
SOCSOCI-197	Contemporary American Society 3
WEBDEV-140	Web Development With JavaScript and jQuery ‡ ^ 3
WEBDEV-198	Internship ‡ 1
WEBDEV-199	Portfolio ‡ 3

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

^ Counts toward earning the Front-End Web Developer technical diploma. Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

GENERAL EDUCATION

The General Education Academic & Career Pathway is MATC's largest and most diverse. We offer unparalleled academic and career course combinations in the liberal arts and sciences — the foundation for all academic and career paths. The Pathway fosters educational excellence and interdisciplinary inquiry through our unique blend of course options in the humanities, natural sciences and social sciences. Our students have access to choose, explore and sculpt a personalized and individually powerful learning experience suited for their desired academic and/or career paths. Our courses transform our students into socially aware, critically thinking global citizens who strive to bring about positive change in their communities and beyond.

Pathway Offices

Downtown Milwaukee Campus, C Building, Room C204, **414-297-6584**

Mequon Campus, Room A108

Oak Creek Campus, Room A121

West Allis Campus, Room 103

genedpathway@matc.edu



Associate of Arts – Art: Pre-Major
Associate of Arts Communication: Pre-Major
Associate of Arts Community Engagement: Pre-Major
Associate of Arts: Global Studies: Pre-Major
Associate of Arts – Liberal Arts and Sciences Four-Year
College Transfer Program
Associate of Arts: Spanish: Pre-Major
Associate of Arts – Teacher Education: Pre-Major

Associate of Arts – Online Accelerated
Associate of Science – Chemical Technology: Pre-Major
Associate of Science – Economics: Pre-Major
Associate of Science – Liberal Arts and Sciences Four-Year
College Transfer Program
Associate of Science Psychology
Individualized Technical Studies



AD Associate Degree program
TD Technical Diploma program
C Certificate program

Associate of Arts Art: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡, ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-201 Elements of Speech (or) SPEECH 203 Interpersonal Communication (or) SPEECH 206 Intercultural Communication	
Humanities – 12 credits required	12
ART-201 Understanding Art ART-202 Renaissance to Modern Art and Architecture ART-203 Ancient to Medieval Art and Architecture Select one additional 3-credit 200-level Humanities course; see list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
World/Foreign Language – 4 credits required	4
Any 200-level FLANG Most four-year universities require at least four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Social Sciences – 9 credits required	9
See list of courses on Program Plan. Discuss your course selections with Pathway Advisor.	
Diversity/Ethnic Studies – 3 credits required	3
See list of courses on Program Plan. Discuss your course selections with Pathway Advisor.	
Mathematics/Natural Sciences	11
11 credits required (combined between Math and Natural Sciences) Minimum of 11 total credits in Mathematics and Natural Sciences to include: 3-4 credits of Math at the level of Intermediate Algebra or above, and 7-8 credits of Natural Science. See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Art Courses – 9 credits required	9
ART-204 Drawing by Observation GRDS-103 Design Elements and Principles GRDS-107 Digital Imaging	

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

The study of art and design develops creative thinkers, artist professionals and cultural leaders through a cross-disciplinary curriculum that balances innovation, traditional craftsmanship, critical thinking and scholarly civic engagement. This pre-major aligns with transfer agreements with the University of Wisconsin-Milwaukee to give you a head start on a bachelor's degree in the arts. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for more information.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. See an MATC advisor for information.

Associate of Arts Communication: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Arts with an emphasis on Communication Studies includes a combination of theory and pragmatic approaches to the wide-ranging field of Communication. Students will gain proficiency in a myriad of communication contexts, including, but not limited to, public speaking, conflict and communication, interpersonal, and intercultural communication. With a solid introduction to the Communication field of study, you will develop skills to generate captivating messages for wherever your career endeavors take you – nonprofit work, public relations assistant, or communications planner.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 12 credits required	12
12 credits from any 200-level SPEECH course.	
World/Foreign Language* – 4 credits required	4
Take 4 credits from any 200-level FLANG course or 100-level INTP course.	
See your Pathway advisor for details.	
Social Sciences – 12 credits required	12
Select 200-level courses in the Social Sciences. See list of courses in your program plan. Discuss your selection with your Pathway advisor.	
Mathematics – 4 credits required	4
Take 3 to 4 credits from 200-level MATH course.	
Sciences – 7 credits required	7
(4 credits must be lab) See list of courses in your program plan. Discuss your selection with your Pathway Advisor.	
Fine Arts – 3 credits required	3
Take three credits from the following courses:	
ART-201 Understanding Art	
ART-202 Renaissance-Modern Art & Architecture	
ART-203 Ancient to Medieval Art & Architecture	
ART-204 Drawing From Observation	
MUSIC-205 Music Appreciation	
ENG-207 Intro to Creative Writing ‡	
SPEECH-212 Introduction to Theater	
Humanities – 6 credits required	6
Select 200-level courses in the Humanities. See list of courses in Program Plan. Discuss selections with your Pathway advisor.	
Diversity – 3 credits required	3
Select 200-level courses in Diversity. See list of courses in Program Plan. Discuss your selections with your Pathway advisor.	
Physical Education – 3 credits required	3
Select any 200-level PHYED course.	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

*Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. Students in their final semester should choose a course incorporating service learning. Curriculum requirements are subject to change.

Associate of Arts Community Engagement: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

This Associate of Arts program prepares you to create positive change through advocacy and community engagement. The curriculum explores contemporary urban issues with an emphasis on social action and diverse perspectives. Through this program, students earn the first two years of bachelor's degree credit courses that will transfer to a four-year college/university. Courses may be taken online or face-to-face. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and credit transfer details. Contact an MATC advisor for more information.

Program Learning Outcomes

Effective Communication, Information Literacy, Global Awareness, Analytical/Critical Thinking, Professionalism, Scientific Method

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. Students in their final semester should choose a course incorporating service learning. Curriculum requirements are subject to change.



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-203 Interpersonal Communication	
Humanities – 15 credits required	15
ART-201 Understanding Art (or) ENG-207 Intro to Creative Writing ‡	
Any 200-level ENG diversity-focused literature course; choose one of the following:	
ENG-218 African American Literature 1 ‡	
ENG-219 African American Literature 2 ‡	
ENG-220 Native American Literature ‡	
ENG-221 Native American Women in Literature ‡	
ENG-222 Images of Women in Literature ‡	
ENG-223 African American Literature By and About Black Women ‡	
ENG-224 Introduction to U.S. Latino Literature ‡	
Any additional 200-level FLANG, MUSIC, ENG, SPEECH or ART (9 or more credits); additional foreign language is not required but is recommended.	
Social Sciences – 15 credits required	15
SOCSCI-203 Introduction to Sociology	
SOCSCI-217 Valuing Diversity	
SOCSCI-221 American National Government and Politics Today	
HIST-216 History of American Minorities (or) HIST-217 Contemporary Civil Rights	
ECONOMICS: ECON-195 (or) any 200-level ECON course	
World/Foreign Language* – 4 credits required	4
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits.	
Mathematics – 3 credits required	3
at the level of intermediate algebra or above	
Natural Sciences – 7 credits required	7
(4 credits must be in a laboratory science)	
GEOSCI-232 Earth Science (3 credits), take concurrently with GEOS-CI-234 Earth Sciences Laboratory (1 credit)	
Any 200-level natural science technology or environmental sciences-related course; choose one of the following:	
GEOSCI-233 Environmental Science	
GEOSCI-246 Climate Change Fundamentals	
BIOSCI-260 Plagues, People and Power ‡	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Electives – 4 credits required	4

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

*Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.

Associate of Arts Global Studies: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

This Associate of Arts program prepares you for effective intercultural interaction in a globalized society. The curriculum explores contemporary global issues with an emphasis on foreign language study, multicultural perspectives and service learning. Students will develop effective communication skills and learn strategies to support cultural exploration in a global context. Students earn the first two years of bachelor's degree credit courses that will transfer (consult with the destination institution regarding specific requirements for a major and credit transfer details). Courses may be taken online or face-to-face.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-206 Intercultural Communication	
World/Foreign Language - 4 credits required	4
Any 200-level FLANG	
Most four-year universities require at least four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Humanities – 15 credits required	15
Recommended – Any additional 200-level FLANG courses	
Social Sciences – 15 credits required	15
SOCSCI-208 Global Cultures and Politics	
(or) GLOBAL-115 International Field Studies	
SOCSCI-217 Valuing Diversity	
SOCSCI-224 Peoples and Cultures of the World	
HIST-229 World History Since 1500	
ECON-223 Ecological Economics	
(or) ECON-202 Principles of Macroeconomics	
Mathematics – 4 credits required	4
at the level of intermediate algebra or above	
Natural Sciences – 7 credits required	7
(4 credits must be lab)	
GEOSCI-232 Earth Science (3 credits), take concurrently with	
GEOSCI-234 Earth Sciences Laboratory (1 credit)	
Any 200-level natural science technology or environmental sciences-related course; choose one of the following:	
GEOSCI-233 Environmental Science	
GEOSCI-246 Climate Change Fundamentals	
BIOSCI-260 Plagues, People and Power ‡	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Electives – 3 credits required	3
Choose any 200-level courses.	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. Students in their final semester should choose a course incorporating service learning. See an MATC advisor for information.

Associate of Arts Liberal Arts and Sciences Four-Year College Transfer Program



Associate Degree

PROGRAM CODE: 20-800-1



Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Arts degree provides you with the first two years of bachelor's degree credit courses that will transfer to four-year colleges and universities. The courses in this degree emphasize the humanities and allow students many options to analyze information, think critically and creatively, respect diversity and collaborate with others. Courses may be taken online or face to face. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for more information.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
Humanities – 12 credits required	12
Select credits from 200-level courses in the Humanities (such as English, music, speech, art, foreign language).	
Examples: SPEECH-212, FLANG-214.	
Three credits must be in 200-level diversity/ethnic studies courses.	
Three credits must be in 200-level fine arts courses. Examples: MUSIC-205, ART-201, ENG-207 ‡.	
See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
Social Sciences – 12 credits required	12
Select credits from 200-level courses in the Social Sciences. See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
World/Foreign Language - 4 credits required	4
Any 200-level FLANG	
Most four-year universities require four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Mathematics – 3 credits required	3
Select from any 200-level MATH courses, except MATH-260.	
Natural Sciences – 7 credits required	7
Select from 200-level BIOSCI, CHEM, GEOSCI or PHYS courses. Four credits must be in a laboratory science. See courses listed on Program Plan. Discuss your course selections with Pathway advisor.	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Electives – 10 credits required	10
Additional foreign language credits are not required but are recommended.	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

Associate of Arts Spanish: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial aid eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Arts Spanish Pre-Major provides the initial two years of coursework focused on Spanish language, literature and cultures, aimed at transfer to four-year degree programs. Tailored for those planning to major in Spanish or related fields, it ensures transferable credits and emphasizes linguistic proficiency, critical thinking and cultural understanding. The program offers online and face-to-face classes, advising students to consult with future institutions for major-specific requirements. With access to academic advising, students are guided through their course selection and transfer processes, preparing them for advanced studies and global opportunities in Spanish-speaking contexts.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡, ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-201 Elements of Speech (or) SPEECH-203 Interpersonal Communication (or) SPEECH-206 Intercultural Communication	
Spanish – 17 credits required	17
FLANG-200 Spanish 1A and FLANG-201 Spanish 1B (or) FLANG-202 Spanish 1 FLANG-205 Spanish 2 FLANG-213 Spanish 3 FLANG-214 Spanish 4 FLANG-218 Spanish 5 (or) FLANG-228 Spanish for Spanish Speakers	
Humanities – 6 credits required	6
ART-201 Understanding Art	
Three credits must be in 200-level diversity/ethnic studies courses. See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
Social Sciences – 12 credits required	12
SOCSCI-250 Introduction to Philosophy	
See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
Mathematics – 3 credits required	3
MATH-200 Intermediate Algebra ‡	
Natural Sciences – 7 credits required	7
Select from 200-level BIOSCI, CHEM, GEOSCI or PHYS courses. Four credits must be in a laboratory science. See list of courses on Program Plan. Discuss your course selections with Pathway advisor.	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Electives – 3 credits required	3
Choose any 200-level courses	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year college/university regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC. See an MATC advisor for information.

Associate of Arts Teacher Education: Pre-Major

PROGRAM CODE: 20-800-1



Associate Degree



Location: All Campuses

Start Dates: August, January and June

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

To prepare students for a teaching career, this program is designed for students interested in entering K-12 teacher licensing programs at four-year colleges and universities. The program enables you to fulfill the first two years of requirements for a bachelor's degree at MATC. The curriculum includes courses focused on the foundations of urban education. Some of the colleges and universities that MATC students can transfer to include Alverno College, Carroll University, Lakeland University, Marquette University, Mount Mary University, UW-Milwaukee, UW-Parkside and UW-Whitewater.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

STEPS TO SUCCESS

- Complete the MATC admissions process.
- Enroll in EDF-249 Orientation to Urban Teaching.
- Meet with advisor at least once every semester to select courses.
- Earn your associate degree through the Teacher Education: Pre-Major at MATC, including four teacher preparation courses.
- Complete your associate degree with a GPA of 2.5 or higher.
- Apply to the School of Education at one of the partnering four-year colleges/universities, where you will continue your studies to receive your bachelor's degree in education.
- After you receive your bachelor's degree, you will be eligible to apply for a Wisconsin teaching license.

Learning Goals and Curriculum Requirements

The curriculum includes four courses in Educational Foundations focused on the historical, cultural, sociological and philosophical foundations of urban education: EDF-249 Orientation to Urban Teaching, EDF-253 Issues in Urban Teaching, EDF-254 Field Experience in Urban K-12 Classrooms and EDF-255 Introduction to Teaching. Students complete observational and participatory experiences with Milwaukee Public Schools.

English/Speech – 9 credits required	9
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
SPEECH-201 Elements of Speech	
Social Science – 15 credits required	15
Mathematics – 6 credits required	6
Natural Science – 7 credits required	7
GEOSCI-233	
+ course with a lab	
Humanities – 15 credits required	15
ART-201, MUSIC-205, ENG-207 ‡ (or) SPEECH-212, ENG-220 ‡	
+ three more courses	
World/Foreign Language - 4 credits required	4
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Physical Education – 3 credits required	3
Elective - 1 credit required	1

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Contact an MATC advisor for information.

Associate of Arts Online Accelerated

PROGRAM CODE: 20-800-1



Associate Degree



Location: Online Campus

Start Dates: August, January and June

Admission Requirement: High school diploma or GED
Admission to this program requires an interview with the Associate of Arts Online — Accelerated coordinator. To initiate that process and schedule an interview, see this program’s webpage at matc.edu.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

This online accelerated degree program provides you with the first two years of bachelor’s degree credit courses that will transfer to four-year colleges and universities. You can complete this degree entirely online and in one year of full-time study through five sessions. A session lasts seven or eight weeks. The degree also can be completed in more time, per your schedule. Students who plan to transfer are advised to consult with the four-year college/ university regarding specific requirements for a major, and the credit transfer details. Contact an MATC advisor for more information..

Program Learning Outcomes

Effective Communication, Information Literacy , Global Awareness, Analytical/Critical Thinking, Professionalism , Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
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Quin 1: Fall term, first session

ENG-201	English 1 ‡	3
PHYED-210	An Active Approach to Wellness and Fitness	3
ECON-201	Principles of Microeconomics	3
HIST-211	America Through 1877	3

Quin 2: Fall term, second session

SOCSCI-203	Introduction to Sociology	3
SPEECH-206	Intercultural Communication	3
ECON-202	Principles of Macroeconomics	3
PSYCH-231	Introductory Psychology	3

Quin 3: Spring term, third session

ENG-202	English 2 ‡	3
MATH-200	Intermediate Algebra ‡	4
FLANG-202	Spanish 1	4

Most four-year universities require at least four consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.

HIST-212	America Since 1877	3
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Quin 4: Spring term, fourth session

SOCSCI-221	American National Government and Politics Today	3
ART-201	Understanding Art	3
GEOSCI-232	Earth Science	3
GEOSCI-234	Earth Science Laboratory	1
SOCSCI-217	Valuing Diversity	3

Quin 5: Summer term, fifth session

Choose any 200-level BIOSCI, CHEM, GEOSCI or PHYS course	3
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Additional Electives – 6 credits required

Additional foreign language is not required but is recommended.

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: Consult the four-year college or university you plan to attend regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher.

Associate of Science Chemical Technology: Pre-Major

PROGRAM CODE: 20-800-2



Associate Degree



Location: Downtown Milwaukee Campus, Oak Creek Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Science Chemical Technology: Pre-Major provides the first two years of bachelor's degree credit courses that will transfer to four-year colleges and universities. MATC's state-of-the-art labs give students an advantage as they prepare for bachelor's degree studies and the workforce. Courses emphasize chemistry and prepare you for both transfer to a four-year degree program and to begin work in an industrial chemistry lab. Summer research/internship opportunities are available. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for information.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
Humanities – 6 credits required	6
See courses listed on Program Plan; discuss your course selections with Pathway advisor.	
Three credits must be in 200-level diversity/ethnic studies courses.	
Three credits must be in 200-level fine arts courses. Examples: MUSIC-205, ART-201, ENG-207 ‡.	
Social Sciences – 6 credits required	6
Select 200-level courses in the Social Sciences. See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
World/Foreign Language - 4 credits required	4
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Natural Sciences – 20 credits required	20
CHEM-211 Chemistry 1 ‡	
CHEM-212 Chemistry 2 ‡	
CHEM-215 Quantitative Chemical Analysis ‡	
CHEM-217 Organic Chemistry 1 ‡	
CHEM-219 Organic Chemistry Lab 1 ‡	
Mathematics – 5 credits required	5
MATH-231 Analytic Geometry and Calculus 1 ‡	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Electives – 7 credits required	7
CHEMT-103 Introduction to Chemical Technology	
CHEMT-107 Industrial Methods of Analysis ‡	
CHEMT-109 Chemical Processes ‡	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

Associate of Science Economics: Pre-Major

PROGRAM CODE: 20-800-2



Associate Degree



Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

Economic issues affect you as a consumer, producer, worker, citizen and investor. Gain knowledge of economics and develop the analytical, critical thinking and communication skills needed for transfer to a four-year college and to begin a career related to economics, business or finance. You also will become competent in making personal decisions that rely on understanding economics. This program provides the first two years of bachelor's degree credit courses that can transfer to four-year colleges and universities. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major. Contact an MATC advisor for information.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
Humanities – 6 credits required	6
Three credits must be in 200-level diversity/ethnic studies courses – see list in Program Plan.	
Three credits must be in 200-level courses in the Humanities – see list of courses in Program Plan.	
Discuss your course selections with Pathway advisor.	
World/Foreign Language - 4 credits required	4
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Economics – 18 credits required	18
ECON-201 and ECON-202; and select 12 additional credits from 200-level Economics (ECON) courses, see Program Plan.	
Mathematics – 11 credits required	11
MATH-201 College Algebra ‡	
MATH-211 Survey in Calculus and Analytic Geometry ‡	
MATH-260 Basic Statistics ‡	
Natural Sciences – 9 credits required	9
See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

Associate of Science Liberal Arts and Sciences Four-Year College Transfer Program

PROGRAM CODE: 20-800-2



Associate Degree



Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

The Associate of Science degree provides you with the first two years of bachelor's degree credit courses that will transfer to four-year colleges and universities. The courses in this degree emphasize the sciences and allow students many options to analyze information, think critically and creatively, respect diversity, and collaborate with others. Courses may be taken online or face-to-face. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major and the credit transfer details. Contact an MATC advisor for information.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
Humanities – 6 credits required	6
Select 200-level courses in the Humanities - see list of courses in Program Plan; discuss your selections with Pathway advisor.	
Social Sciences – 6 credits required	6
Select 200-level courses in the Social Sciences – see list of courses in Program Plan; discuss your selections with Pathway advisor.	
Diversity/Ethnic Studies - 3 credits required	
Three credits are required in 200-level Diversity/Ethnic Studies courses. See list in Program Plan. The 3 credits can count toward the 6 credits required for Humanities or for Social Sciences.	
World/Foreign Language - 4 credits required	4
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Mathematics – 5 credits required	5
MATH-231 Analytic Geometry and Calculus 1 ‡	
Natural Sciences – 15 credits required	15
(8 credits must be lab) See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Electives – 12 credits required	12

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

Associate of Science Psychology: Pre-Major

PROGRAM CODE: 20-800-2



Associate Degree



COURSE	CREDITS
English – 6 credits required	6
ENG-201 English 1 ‡	
ENG-202 English 2 ‡	
Speech – 3 credits required	3
SPEECH-201 Elements of Speech	
(or) SPEECH-203 Interpersonal Communication	
(or) SPEECH-206 Intercultural Communication	
Humanities – 6 credits required	6
Three credits must be in 200-level Diversity/Ethnic Studies – see list in Program Plan.	
Three credits must be in 200-level Humanities – see list of Humanities courses in Program Plan.	
Discuss your course selections with Pathway advisor.	
World/Foreign Language - 4 credits required	4
Any 200-level FLANG	
Most four-year universities require at least two consecutive semesters of the same language. Students with prior experience can place into a higher level with the potential of earning 2-14 free retroactive credits. Students who completed four high school semesters of the same language with a grade of C or better can waive this requirement; the four waived credits must be made up with other 200-level credits.	
Psychology – 18 credits required	18
PSYCH-230 Cross-Cultural Psychology ‡	
PSYCH-231 Introductory Psychology	
PSYCH-232 Abnormal Psychology ‡	
PSYCH-240 Health Psychology ‡	
PSYCH-270 Educational Psychology ‡	
PSYCH-233 Social Psychology ‡	
(or) PSYCH-237 Child Psychology ‡	
(or) PSYCH-238 Lifespan Psychology	
(Note: only one of these last three courses will count toward the Pre-Major)	
Mathematics – 7 credits required	7
MATH-211 Survey in Calculus and Analytic Geometry ‡	
MATH-260 Basic Statistics ‡	
Natural Sciences – 9 credits required	9
Select 9 credits of 200-level courses with lab from at least two areas of natural sciences. See list of courses in Program Plan; discuss your course selections with Pathway advisor.	
Physical Education – 3 credits required	3
Select any 200-level PHYED course(s).	
Additional Electives – 4 credits required	4

Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Liberal Arts and Sciences Four-Year College Transfer Program

This pre-major reflects the diversity of psychology as a science and profession. Applied research opportunities are available to MATC students through affiliations with local organizations. The coursework helps prepare students for many career possibilities in psychology, education, social and welfare services, health services, and industry. This program provides the first two years of bachelor's degree credit courses that can transfer to four-year colleges and universities. Students who plan to transfer should consult with the four-year college/university regarding specific requirements for a major. Contact an MATC advisor for more information.

Program Learning Outcomes

- Effective Communication
- Information Literacy
- Global Awareness
- Analytical/Critical Thinking
- Professionalism
- Scientific Method



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Note: It is important to consult the four-year institution regarding transferability of your selected courses. Successful completion of this degree requires a grade-point average of 2.0 (C) or higher, with 25% of the credits taken at MATC.

Individualized Technical Studies

PROGRAM CODE: N/A



Associate Degree



COURSE	CREDITS
INDVTS-102 Career Assessment and Portfolio Development	3
ECON-195 Economics.....	3
(or) Any 200-level ECON course	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
MATH-107 College Mathematics ‡.....	3
(or) MATH-113 College Technical Mathematics 1A ‡	
(or) MATH-123 Math With Business Applications ‡	
(or) Any 200-level MATH course	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
OTHER TECHNICAL COURSES	42

CREDITS	60
Total credits needed to complete this degree	

‡ Prerequisite required.
 Program curriculum requirements are subject to change.
 A minimum of 25% of total program requirements must be earned at MATC.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED
 Interview with the program coordinator to evaluate career goals and determine if the program is appropriate, develop a formal portfolio to document the process and establish degree requirements and a timeline for degree completion.

Financial Aid Eligible: Yes.
 Apply at fafsa.gov. Use School Code 003866.

Program Description

This associate degree program is designed to meet specific educational needs of students, business and industry not currently served by other degree programs. It is a customized program for students who need to combine skills and knowledge from different disciplines to be productive in tomorrow's workforce.

A Specialized Degree

The curriculum for an Individualized Technical Studies degree will be drawn from existing offerings at MATC.



Complete Program Details

QUESTIONS? 414-297-6584 or genedpathway@matc.edu

HEALTHCARE

The Healthcare Pathway offers cutting-edge programs to prepare you, as a 21st-century healthcare provider, with the necessary leadership skills to strengthen and build the health and well-being of our community. We are proud to work with leading healthcare organizations to offer innovative clinical and cultural-immersion experiences for our students. The college is proud to offer healthcare scholarships for students in need of financial assistance. We offer a state-of-the-art dental clinic, simulation labs and food science kitchen, and many other impressive spaces where you will grow both personally and professionally.

Pathway Offices

Downtown Milwaukee Campus, H Building, H116, **414-297-6263**

Mequon Campus, Room A108, **262-238-2281**

Oak Creek Campus, Room A121

West Allis Campus, Room 103

healthpathway@matc.edu



Anesthesia Technology AD
Cardiovascular Technology – Echocardiography AD
Cardiovascular Technology – Invasive AD
Community Health and Nutrition Navigator AD
Dental Assistant TD
Dental Hygiene AD
Diagnostic Medical Sonography AD
Dietary Manager Cert
EKG Technician Cert
Enhanced Yoga Instructor TD
Health Information Technology AD
Health Unit Coordinator TD
Healthcare Customer Service Cert
Healthcare Services Management AD
Integrative Health AD
LPN to ADN Progression AD

Medical Assistant TD
Medical Coding Specialist TD
Medical Interpreter TD
Medical Laboratory Technician AD
Nursing Assistant TD
Nutrition and Dietetic Technician AD
Occupational Therapy Assistant AD
Pharmacy Technician TD
Phlebotomy TD
Physical Therapist Assistant AD
Practical Nursing TD
Radiography AD
Registered Nursing AD
Respiratory Therapy AD
Surgical Technologist AD



AD Associate Degree program
TD Technical Diploma program
C Certificate program

Students enrolled in Healthcare Pathway programs that require clinical or fieldwork placement must meet the requirements of the program and the clinical/fieldwork requirements in order to successfully complete their program.

Health Record Requirements

Continuation in a Healthcare Pathway program is contingent upon completion and approval of health records as required for each program. Program specific information can be found at matc.edu under the appropriate program page.

Health requirements as determined by the Healthcare Pathway and clinical/field placement agency must be completed by the designated date in order to enroll in the course of study and enter the clinical/field placement agency. **Meeting the health record requirements is the sole responsibility of the student.** Failure to comply with all health, drug test and criminal background requirements may result in immediate removal from the program.

Health requirements include all vaccinations, including the COVID-19 vaccine if required by the clinical site or fieldwork agency. The clinical site or fieldwork agency procedures for exceptions may apply. Due to the likelihood of a placement site requiring the COVID-19 vaccine, it is strongly recommended that Healthcare Pathway students talk with their healthcare provider and consider completion of vaccination, prior to the start of the academic semester. If the vaccination is required by the clinical site, and the student declines the vaccination, it may impact a student's ability to complete their program requirements thus resulting in a delay in clinical coursework and/or an inability to graduate with a degree or credential.

MATC is not requiring students to get vaccinated; however, as a guest at the clinical and fieldwork sites, it may be a requirement for placement to ensure safety of the patients/clients. Students who do not wish to receive the COVID-19 vaccination should arrange an appointment to speak with the clinical coordinator.

Anesthesia Technology

PROGRAM CODE: 10-541-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED, and one year of high school-level biology, chemistry and algebra required. This program admits students through a petition selection process. See this program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Become an anesthesia technologist and you'll be a vital member of the anesthesia care team. These technologists work under the direction of the anesthesia provider and are proficient in the acquisition, preparation and application of the equipment required for the delivery of anesthesia care. Graduates are eligible to take the American Society of Anesthesia Technologists & Technicians (ASATT) National Certification Examination to become certified as an Anesthesia Technologist (Cer.A.T.T.).

Career Outlook

Anesthesia technologists are in high demand.

Program Learning Outcomes

- Exhibit patient care skills.
- Model professional behaviors as an AT.
- Provide psychological support and explain procedures to patients.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
ANTECH-102 Introduction to Anesthesia Technology ‡	2
BIOSCI-177 General Anatomy and Physiology ‡ (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
HEALTH-101 Medical Terminology ^	3
HEALTH-104 Contemporary Healthcare Practices ^	2
HEALTH-107 Digital Literacy for Healthcare ^	2
ANTECH-117 AT Fundamentals 1 ‡	3
ANTECH-118 AT Instrumentation 1 ‡	3
ANTECH-120 AT Clinical Procedures ‡	2
BIOSCI-179 Advanced Anatomy and Physiology ‡ (or) BIOSCI-202 Anatomy and Physiology 2 ‡	4
CVTECH-110 EKG Analysis ‡	2
ENG-197 Technical Reporting ‡ (or) Any 200-level ENG or SPEECH course	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
SOCSCI-197 Contemporary American Society (or) Any 200-level SOCSCI or HIST course	3
ANTECH-133 Anesthetics ‡	3
ANTECH-137 AT Fundamentals 2 ‡	3
ANTECH-138 AT Instrumentation 2 ‡	3
ANTECH-139 Anesthesia Technology Clinical Experience 1 ‡	3
CVTECH-132 Physics of Medicine ‡	3
ANTECH-185 Anesthesia Technology Clinical Seminar ‡	2
ANTECH-186 Anesthesia Technology Clinical Experience 2 ‡	4
ANTECH-187 Anesthesia Technology Clinical Experience 3 ‡	4

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350
caahep.org

Cardiovascular Technology – Echocardiography



Associate Degree

PROGRAM CODE: 10-521-2



Location: Downtown Milwaukee Campus

Start Dates: January

Admission Requirement: High school diploma or GED, and one year of high school-level biology, chemistry and algebra required. Program admits students through a petition selection process. See program’s webpage at matc.edu to view all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn to perform echocardiograms, a widely used diagnostic test for heart disease. Echocardiography technologists perform the tests in hospitals and outpatient facilities, utilizing ultrasound equipment to gather data about the cardiac chambers, valves and vessels leading to and from the heart. Completing this program fulfills prerequisites to take the Registered Cardiac Sonographer (CCI) or Registered Diagnostic Cardiac Sonographer (ARDMS) exam.

Career Outlook

The continuing demand for echocardiography technologists indicates strong employment opportunities.

Program Learning Outcomes

- Exhibit patient care skills.
- Model professional behaviors as a CVT.
- Explain diagnostic and/or interventional procedures.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡ ^	4
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
DMS-200 Introduction to DMS ‡	3
DMS-221 Sonography Physics 1 ‡	3
CVTECH-115 Essentials of Cardiac Care 1 ‡ ^	4
CVTECH-102 Introduction to CVT ‡ ^	2
CVTECH-110 EKG Analysis ‡ ^	2
CVTECH-118 Echocardiography Basics ‡	3
ENG-197 Technical Reporting ‡	3
(or) Any 200-level ENG or SPEECH course	
CVTECH-121 Echo Clinical Procedures ‡	2
CVTECH-144 Advanced Echo Practicum ‡	3
CVTECH-145 Echocardiography Fundamentals ‡	4
CVTECH-149 Echocardiography Clinical Experience 1 ‡	2
DMS-222 Sonography Physics 2 ‡	2
ELECTIVES (Two credits)	2
CVTECH-142 Echo Case Review ‡	3
CVTECH-195 Echocardiography Clinical Seminar ‡	2
CVTECH-196 Echocardiography Clinical Experience 2 ‡	4
CVTECH-197 Echocardiography Clinical Experience 3 ‡	4

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

^ Counts toward earning the EKG Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350; caahep.org/Students/Program-Info/Cardiovascular-Technology.aspx. Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).

Cardiovascular Technology – Invasive

PROGRAM CODE: 10-521-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: January

Admission Requirement: High school diploma or GED, and one year of high school-level biology, chemistry and algebra required. Program admits students through a petition selection process. See program’s webpage at matc.edu to view all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for a rewarding career as a cardiac catheterization technologist, assisting cardiologists in cardiac catheterization labs with the care of heart patients and performing diagnostic and interventional procedures related to stent placements, pacemaker implants, and other heart or blood vessel conditions. Completing this program fulfills prerequisites to take the Registered Cardiovascular Invasive Specialist (RCIS) exam given by Cardiac Credentialing International (CCI).

Career Outlook

The continuing demand for invasive cardiac catheterization technologists indicates strong employment opportunities.

Program Learning Outcomes

- Exhibit patient care skills.
- Model professional behaviors as a CVT.
- Explain diagnostic and/or interventional procedures.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡ ^	4
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
CVTECH-102 Introduction to CVT ‡ ^	2
CVTECH-110 EKG Analysis ‡ ^	2
CVTECH-115 Essentials of Cardiac Care 1 ‡ ^	4
CVTECH-117 Invasive CVT Fundamentals 1 ‡	4
ENG-197 Technical Reporting ‡	3
(or) Any 200-level ENG or SPEECH course	
CVTECH-120 CVT Clinical Procedures ‡	2
CVTECH-132 Physics of Medicine ‡	3
CVTECH-134 Hemodynamics ‡	3
CVTECH-135 Essentials of Cardiac Care 2 ‡	4
CVTECH-137 Invasive CVT Fundamentals 2 ‡	4
CVTECH-138 Invasive CVT Clinical 1 ‡	4
CVTECH-122 Peripheral Vascular Essentials ‡	3
CVTECH-133 Cardiovascular Pharmacology ‡	3
CVTECH-185 Invasive CVT Clinical Seminar ‡	2
CVTECH-188 Invasive CVT Clinical 2 ‡	3
CVTECH-189 Invasive CVT Clinical 3 ‡	3

CREDITS

Total credits needed to complete this degree

62

‡ Prerequisite required.

^ Counts toward earning the EKG Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350; caahep.org/Students/Program-Info/Cardiovascular-Technology.aspx. Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).

Community Health and Nutrition Navigator

PROGRAM CODE: 10-539-3



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

A community health and nutrition navigator is a frontline public health worker who, as a trusted member of the community, serves as a liaison to connect people to medical providers and community resources for health and nutrition needs.

Career Outlook

The world of healthcare today is complex and there is a need for frontline health workers with expertise and experience in assisting individuals and communities to navigate the healthcare system and encourage self-care advocacy.

Program Learning Outcomes

- Provide information and refer patients, based on the identified barriers and needs, to appropriate resources and services available to the patient.
- Communicate effectively with the healthcare team, diverse patient populations and their families to achieve common health and nutrition goals.
- Apply foundational health and nutrition knowledge to ensure safe, competent, and effective services.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-189 Basic Anatomy	3
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
HEALTH-101 Medical Terminology ^	3
HEALTH-104 Contemporary Healthcare Practices ^	2
HEALTH-110 Basic Nutrition for Health Professionals	1
HEALTH-112 Introduction to Public Health	3
CHNN-202 Healthcare Delivery ‡	3
DIETNT-102 Public Health Nutrition ‡	3
ENG-196 Oral/Interpersonal Communication ‡	3
(or) SPEECH-201 Elements of Speech	
HEALTH-107 Digital Literacy for Healthcare ^	2
HIT-182 Human Disease for the Health Professions ‡	3
CHNN-203 Prevention and Community Health ‡	3
DIETNT-155 Community Nutrition ‡	3
DIETNT-156 Nutrition in the Life Cycle ‡	2
DIETNT-170 Nutritional Counseling Skills ‡	2
MATH-189 Introductory Statistics	3
(or) MATH-260 Basic Statistics ‡	
SOCSCI-103 Think Critically and Creatively	3
CHNN-206 Experiential Practice 1	2
CHNN-207 Experiential Practice 2	3
ELECTIVES (Two credits)	2
PSYCH-199 Psychology of Human Relations	3
(or) Any 200-level PSYCH course	
SOCSCI-166 Introduction to Ethics: Theory and Application	3
(or) Any 200-level SOCSCI course	
SOCSCI-172 Introduction to Diversity Studies	3
(or) Any 200-level SOCSCI course	

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Dental Assistant

PROGRAM CODE: 30-508-2



Technical Diploma



COURSE	CREDITS
DENAST-302 Dental Chairside	5
DENAST-304 Dental and General Anatomy	2
DENAST-305 Applied Dental Radiography..... (or) DENHYG-103 Dental Radiography	2
DENAST-306 Dental Assistant – Clinical.....	3
DENAST-307 Dental Assistant Professionalism	1
DENHYG-101 Dental Health Safety.....	1
DENHYG-113 Dental Materials	2

CREDITS

Total credits needed to complete this diploma

16

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED required, and biology or chemistry recommended. This program admits students through a petition selection process. See the program’s webpage at matc.edu to view petition process and all requirements.

Bilingual (Spanish) program (30-508-2.L) also is offered. The start date is August only and is an open enrollment program; it does not require petitioning.

Program Description

This program prepares students to perform a variety of patient care responsibilities while under the direction and supervision of a dentist during the examination and treatment of patients. Coursework includes academic and clinical competencies, and students will have clinical experience in a dental practice. Students have the option of completing the program in one or two semesters.

Career Outlook

Employment opportunities for trained dental assistants are plentiful in private offices, hospitals and clinic settings.

Program Learning Outcomes

- Perform a variety of entry-level supportive dental procedures.
- Manage infection and hazard control.
- Produce diagnostic radiographs.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

For more career information, visit the Dental Assisting National Board, danb.org, or the American Dental Assistants Association website, adausa.org.

Dental Hygiene

PROGRAM CODE: 10-508-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level biology and chemistry required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

As a dental hygienist, help patients maintain their oral health. Working under a dentist's supervision, dental hygienists perform such duties as teeth cleaning, fluoride treatments, X-ray processing and dental health counseling. You will gain clinical experience in MATC's dental hygiene clinic and at external sites. Graduates are eligible to complete the National Board of Dental Hygiene examination, and state or regional practical examinations.

Career Outlook

Employment prospects for licensed dental hygienists are good. Positions may be found in private dental offices, nursing homes and school settings.

Program Learning Outcomes

- Model dental hygiene professional code of ethics.
- Counsel clients/patients to reduce health risks.
- Provide community care oral health services in a variety of settings.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
DENHYG-101 Dental Health Safety ‡.....	1
DENHYG-102 Oral Anatomy, Embryology and Histology ‡.....	4
DENHYG-103 Dental Radiography ‡.....	2
DENHYG-105 Dental Hygiene Process 1 ‡.....	4
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
BIOSCI-197 Microbiology ‡.....	4
CHEM-186 Introductory Biochemistry ‡.....	4
(or) CHEM-207 General Chemistry ‡	
and CHEM-208 Survey of Biochemistry ‡	
DENHYG-106 Dental Hygiene Process 2 ‡.....	4
DENHYG-107 Dental Hygiene Ethics and Professionalism ‡.....	1
DENHYG-108 Periodontology ‡.....	3
DENHYG-109 Cariology ‡.....	1
DENHYG-110 Nutrition and Dental Health ‡.....	2
DENHYG-111 General and Oral Pathology ‡.....	3
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
DENHYG-112 Dental Hygiene Process 3 ‡.....	5
DENHYG-113 Dental Materials ‡.....	2
DENHYG-114 Dental Pharmacology ‡.....	2
DENHYG-115 Community Dental Health ‡.....	2
DENHYG-118 Dental Anxiety and Pain Management ‡.....	2
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
DENHYG-117 Dental Hygiene Process 4 ‡.....	4
ELECTIVE (One credit).....	1
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) Any 200-level HIST or SOCSCI course	

CREDITS

Total credits needed to complete this degree

67

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, IL 60611; 800-232-6180; ada.org/coda.

Diagnostic Medical Sonography

PROGRAM CODE: 10-526-2



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: June

Admission Requirement: This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

As a graduate of the Diagnostic Medical Sonography program, you can choose to work in a variety of healthcare settings, including clinics, hospitals, private practice physician offices, and public health facilities and laboratories. You perform routine sonographic (ultrasound) examinations of the body to include the abdomen, small parts, obstetrics and gynecology. You work closely with physicians and may assist in the performance of invasive procedures. This program will transfer to numerous four-year colleges and universities.

Career Outlook

The high demand for diagnostic medical sonographers indicates strong employment opportunities.

Program Learning Outcomes

- Provide patient care and education.
- Adhere to the professional code of ethics for sonographers.
- Communicate with members of the healthcare team.
- Utilize medical technology for sonography.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication 3 (or) ENG-201 English 1
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
BIOSCI-177	General Anatomy & Physiology 4 (or) BIOSCI-201 Anatomy & Physiology
MATH 107	College Mathematics 3 (or) Any 200-level MATH course
PHYS-139	Survey of Physics 3
SOCSCI-172	Introduction to Diversity Studies 3 (or) Any 200-level SOCSCI course
BIOSCI-179	Advanced Anatomy & Physiology 4 (or) BIOSCI-202 Anatomy & Physiology 2
DMS-200	Introduction to DMS ‡ 3
DMS-221	Sonography Physics 1 ‡ 3
DMS-210	Cross Sectional Anatomy ‡ 2
DMS-207	Abdominal Sonography ‡ 4
DMS-208	OB/GYN Sonography 1 ‡ 3
DMS-222	Sonography Physics 2 ‡ 2
DMS-223	Vascular Imaging 1 ‡ 3
DMS-212	OB/GYN Sonography 2 ‡ 3
DMS-203	Scanning with Proficiency ‡ 1
ENG-197	Technical Reporting 3 (or) Any 200 level ENG course (except ENG-200 or ENG-201) or Any 200-level SPEECH
DMS-209	DMS Clinical Experience 1 ‡ 2
DMS-211	Superficial Sonography ‡ 2
DMS-224	Vascular Imaging 2 ‡ 3
DMS-220	DMS Clinical Experience 2 ‡ 5
DMS-225	DMS Clinical Experience 3 ‡ 3
DMS-229	DMS Clinical Experience 4 ‡ 2
DMS-217	Registry Review ‡ 2

CREDITS

Total credits needed to complete this degree

69

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Dietary Manager

PROGRAM CODE: 61-313-1



Certificate



COURSE	CREDITS
DIETNT-106 Food Service Sanitation ‡..... (or) CULMGT-112 Food Service Sanitation	2
DIETNT-108 Food Service Management 1 ‡.....	3
DIETNT-118 Food Service Management 1:Coordinated Practice ‡.....	1
DIETNT-151 Nutrition for Dietetics ‡	4

CREDITS

Total credits needed to complete this certificate

10

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is approved by:

Association of Nutrition & Foodservice Professionals (ANFP),
P.O. Box 3610, St. Charles, IL 60174
800-323-1908; anfponline.org.

Location: West Allis Campus

Start Dates: June

Admission Requirement: High school diploma or GED

Program Description

Bilingual (Spanish) mode also is offered.

Students enrolled in the Nutrition and Dietetic Technician associate degree program will complete all of this certificate's required courses as part of their program. Students have the opportunity to learn about safe food handling, meal planning, menu management and supervision. Students are eligible for ANFP Pre-Professional membership and upon successful completion of the program, graduates are eligible for the ANFP professional membership. A Registered Dietitian Nutritionist directly supervises a minimum of 25 of the 30 nutrition-related field experience hours and coordinates the entire 150 hours: 150 hours of precepted field experience overseen by a Registered Dietitian.

Upon completion of this certificate, students are eligible to take the nationally recognized CDM Credentialing Exam offered by the Certifying Board for Dietary Managers. These professionals work in a variety of healthcare and institutional food settings.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

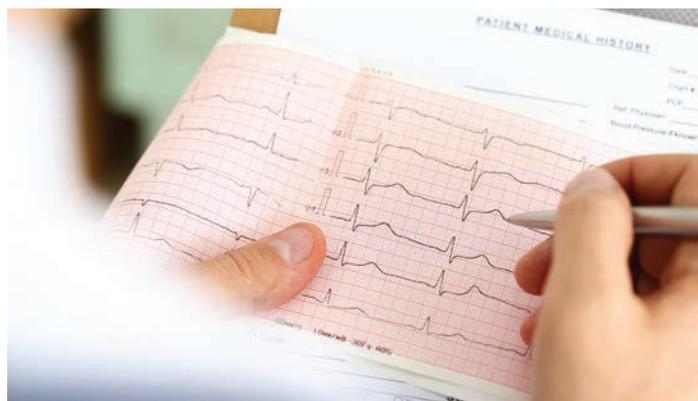
QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

EKG Technician

PROGRAM CODE: 61-521-1



Certificate



COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
CVTECH-102 Introduction to CVT ‡.....	2
CVTECH-110 EKG Analysis ‡	2
CVTECH-115 Essentials of Cardiac Care 1 ‡.....	4

CREDITS

Total credits needed to complete this certificate

12

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus

Start Dates: January

Admission Requirement: High school diploma or GED and one year of high school-level biology, chemistry and algebra (grade C or higher). This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Program Description

Learn the anatomy, physiology and pathology of the heart, and develop the skills needed to complete and interpret electrocardiograms (EKGs). This program prepares you to take the Certified Cardiographics Technician examination, leading to a Certified Cardiographics Technician (CCT) credential as administered by Cardiac Credentialing International (CCI).

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

Enhanced Yoga Instructor

PROGRAM CODE: 30-546-1



Technical Diploma



COURSE		CREDITS
EYI-101	History and Foundation of Yoga	1
EYI-110	Functional Movement	3
EYI-120	Asana, Sequencing and Structure	2
EYI-130	Mindfulness and Meditation	2
EYI-140	Business Ethics in Yoga	1
EYI-220	Anatomical Variations	3
EYI-230	Teaching Methodology.....	2
EYI-210	Energetics and Subtle Body.....	2
EYI-240	Adaptive Yoga.....	1
ENG-340	Workplace Communication.....	2
	(or) ENG-195 Written Communication ‡	

Location: Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

The Enhanced Yoga Instructor (EYI) is a wellness professional who has advanced knowledge to allow for interprofessional relationships within the medical community. The program goal is to educate EYIs beyond the role of teaching public classes — to elevate them to trusted wellness practitioners/partners within the healthcare community; with enhanced skills in working with special populations, injury prevention and mindfulness for a holistic approach to wellness for individuals and communities.

Career Outlook

The number of Americans practicing yoga for wellness has increased, and more physicians are suggesting patients do yoga for healing benefits.

Program Learning Outcomes

- Create and lead classes for individuals or groups that promote holistic health through movement and mindfulness.
- Apply foundational knowledge to adapt to the specific needs of their students, working with disease processes, injuries, or special needs.
- Communicate and partner with other healthcare professionals as part of an interdisciplinary team to provide cohesive patient care.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

19

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Health Information Technology

PROGRAM CODE: 10-530-1



Associate Degree



Location: Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level chemistry required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Using the latest technology, health information technicians collect, analyze and report healthcare data. This requires knowledge of diseases, treatments, regulatory issues, computer systems and organizational skills.

Career Outlook

The U.S. Bureau of Labor and Statistics cites health information technology as a growing occupational area.

Program Learning Outcomes

- Apply data governance principles to ensure the quality of health data.
- Apply coding and reimbursement systems.
- Model professional behaviors and ethics.
- Apply informatics and analytics in data use.
- Apply organizational management techniques.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-189 Basic Anatomy [^]	3
(or) BIOSCI-177 General Anatomy and Physiology ‡	
ENG-195 Written Communication ‡ [^]	3
(or) ENG-201 English 1 ‡	
HEALTH-101 Medical Terminology [^]	3
HEALTH-107 Digital Literacy for Healthcare [^]	2
HIT-182 Human Disease for the Health Professions ‡ [^]	3
HIT-197 ICD Diagnosis Coding ‡ [^]	3
HIT-199 ICD Procedure Coding ‡ [^]	2
ENG-197 Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
HEALTH-104 Contemporary Healthcare Practices [^]	2
HIT-159 Healthcare Revenue Management.....	3
HIT-162 Foundations of HIM ‡ [^]	3
HIT-165 Intermediate Coding ‡ [^]	3
HIT-184 CPT Coding ‡ [^]	3
HIT-163 Healthcare Stats and Analytics ‡.....	3
HIT-164 Introduction to Health Informatics ‡.....	3
HIT-178 Healthcare Law and Ethics ‡.....	2
MATH-189 Introductory Statistics.....	3
(or) MATH-260 Basic Statistics	
PSYCH-188 Developmental Psychology.....	3
(or) Any 200-level PSYCH course	
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
HIT-161 Health Quality Management ‡.....	3
HIT-166 HIT Capstone ‡.....	1
HIT-167 Management of HIM Resources ‡.....	3
HIT-196 Professional Practice ‡.....	3

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

[^] Counts toward earning the Medical Coding Specialist technical diploma. Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 200 East Randolph Street, Suite 5100, Chicago, IL 60601; 312-235-3255; cahiim.org.

Health Unit Coordinator

PROGRAM CODE: 30-510-2



Technical Diploma



COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
HEALTH-101	Medical Terminology * ^ 3
HEALTH-104	Contemporary Healthcare Practices* ^ 2
HEALTH-107	Digital Literacy for Healthcare * ^ 2
HSM-130	Health Services Coordination 1 ‡ 3
HSM-131	Health Services Coordination 2 ‡ 3
HSM-132	Health Services Applications ‡ 3

CREDITS

Total credits needed to complete this diploma

19

‡ Prerequisite required.

* Must be taken prior to entering the program.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Mequon Campus, Online Campus

Start Dates: August, January and June

Admission Requirement: High school diploma or GED required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Program Description

Enter the healthcare field in a non-direct patient care role. This program prepares you for responsibilities such as order transcription, clerical support functions and customer service interactions. Technical courses are offered via online instructional format only.

Career Outlook

Health unit coordinators are valued professionals of the healthcare team and the demand for this profession continues to grow. Graduates may be employed in hospitals, long-term care facilities or clinics. For additional career information, visit nahuc.org.

Program Learning Outcomes

- Manage multiple sources of client information.
- Function as an integrated member of the healthcare team.
- Coordinate operational processes.
- Communicate professionally utilizing multiple modalities.
- Process healthcare orders.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

Healthcare Customer Service

PROGRAM CODE: 61-530-1



Certificate



COURSE

HEALTH-101	Medical Terminology	3
HEALTH-104	Contemporary Healthcare Practices	2
HEALTH-107	Digital Literacy for Healthcare	2

CREDITS

CREDITS

Total credits needed to complete this certificate

7

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

This certificate includes instruction in medical terminology, healthcare computing and the customer service skills related to working in a healthcare setting. Students earning this certificate will be prepared for entry-level customer service positions in the healthcare industry.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

Healthcare Services Management

PROGRAM CODE: 10-530-3



Associate Degree



Location: Mequon Campus, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level biology and chemistry required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Demonstrate leadership skills, manage support staff and ensure efficient healthcare organizational workflows according to prescribed quality standards with the abilities attained through this program. All courses are offered via online format.

Career Outlook

This was named the No. 1 in-demand profession in 2019, 2020 and 2021, according to the Wisconsin Technical College System. U.S. Bureau of Labor Statistics projects employment to grow 32% from 2020 to 2030.

Program Learning Outcomes

- Employ healthcare quality management techniques to encourage safe and efficient patient care.
- Describe knowledge of healthcare systems management.
- Utilize oral, written and nonverbal communication skills in an organized and coherent manner



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-189 Basic Anatomy 3 (or) BIOSCI-177 General Anatomy and Physiology ‡ (or) BIOSCI-201 Anatomy and Physiology 1 ‡	3
ECON-195 Economics..... 3 (or) Any 200-level ECON course	3
ENG-195 Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡	3
HEALTH-101 Medical Terminology ^ 3	3
HEALTH-104 Contemporary Healthcare Practices ^..... 2	2
HEALTH-107 Digital Literacy for Healthcare ^..... 2	2
HSM-130 Health Services Coordination 1 ‡ ^ 3 (or) CLABT-110 Basic Lab Skills ‡ and CLABT-111 Phlebotomy ‡	3
HSM-131 Health Services Coordination 2 ‡ ^ 3 (or) MLABT-161 Computer Applications for the Medical Laboratory ‡ and Two Credits of Electives	3
HSM-132 Health Services Applications ‡ ^ 3 (or) MLABT-166 Phlebotomy Clinical Experience ‡	3
HSM-145 Healthcare Law, Ethics and Professional Standards ‡ 3	3
MATH-189 Introductory Statistics ‡ 3 (or) MATH-260 Basic Statistics ‡	3
ACCTG-110 Financial Accounting 3	3
ENG-197 Technical Reporting ‡..... 3 (or) Any 200-level ENG or SPEECH course	3
HSM-129 Human Resources Management in HCOs ‡ 3	3
HSM-139 Bioethics, Human Research Practices and Compliance ‡.. 4	4
HSM-144 Introduction to the Business of Healthcare ‡ 3	3
BADM-126 Business Finance ‡ 3	3
HSM-143 Healthcare Quality Management ‡..... 3	3
HSM-146 Leadership in Healthcare Organizations ‡..... 4	4
PSYCH-199 Psychology of Human Relations 3 (or) Any 200-level PSYCH course	3
SOCSCI-197 Contemporary American Society 3 (or) Any 200-level HIST or SOCSCI course	3

CREDITS

Total credits needed to complete this degree

63

‡ Prerequisite required.

^ Counts toward earning the Health Unit Coordinator technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Integrative Health

PROGRAM CODE: 10-546-4



Associate Degree



Location: Downtown Milwaukee Campus, MATC Education Center at Walker's Square, Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Integrative health approaches are typically defined as the coordinated use of conventional and complementary therapies. The term integrative implies that the various approaches are not just used in parallel to one another, but are employed in an organized fashion to optimize the benefits for clients/patients.

Career Outlook

According to the U.S. Bureau of Labor Statistics, employment of healthcare occupations is projected to grow 15% from 2019 to 2029. With stats like that, there are plenty of career opportunities for those interested in integrative health.

Program Learning Outcomes

- Articulate Integrative Health treatment modalities with health promotion and prevention of illness as key wellness strategies.
- Employ holistic mind-body-spirit wellness coaching strategies to implement behavior modification and lifestyle change in clients.
- Perform health and wellness assessments, including fitness testing, body composition assessment, diet analysis and health risk assessments, and assess personal fitness levels and prescribe exercise intervention plans.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
IH-102	Introduction to Integrative Health 3
IH-108	Natural Wellness Concepts..... 3
EYI-101	History and Foundation of Yoga 1
EYI-130	Mindfulness and Meditation 2
BIOSCI-189	Basic Anatomy 3 (or) Any 200-level BIOSCI course
ENG-195	Written Communication ‡..... 3 (or) ENG-201 ‡
IH-112	Nutrition for Health/Wellness..... 3
IH-203	Theory and Practice of Fitness 3
IH-105	Introduction to Wellness Coaching..... 3
IH-201	Introduction to Eastern Medicine 1
SOCSCI-172	Introduction to Diversity Studies..... 3 (or) Any 200-level SOCSCI course
ENG-196	Oral/Interpersonal Comm ‡..... 3 (or) Any 200-level ENG or SPEECH course
IH-218	Health Coaching and Interviewing 3
IH-208	Advanced Wellness..... 3
HEALTH-112	Introduction to Public Health..... 3
EYI-120	Asana, Sequencing and Structure 2
EYI-140	Business Ethics in Yoga 1
PSYCH-199	Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course
IH-235	Fitness Testing and Prescription..... 2
IH-225	Healthy Aging 2
IH-215	Population Health and Wellness..... 2
IH-113	Wellness Marketing and Technology..... 3
ELECTIVES	6 credits required from any 100-, 200- or 300-level in any subject..... 6

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

LPN to ADN Progression

PROGRAM CODE: 10-543-10.22.P



Associate Degree



Location: Downtown Milwaukee Campus, Mequon Campus

Start Dates: August and January

Admission Requirement: Must hold a current Wisconsin Practical Nurse License. This program admits students through a petition selection process. See program's webpage at matc.edu to view details.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

If you are a licensed practical nurse interested in a career as a registered nurse, this program is for you. Graduates are eligible to take the RN Licensure Exam (NCLEX-RN). Employers will expect graduates to have a plan for completing a Bachelor of Science in Nursing (BSN). Some BSN courses may be taken concurrently with associate degree courses.

Program Learning Outcomes

- Integrate professional nursing identity reflecting integrity, responsibility, and nursing standards.
- Communicate comprehensive information using multiple sources in nursing practice.
- Integrate theoretical knowledge to support decision-making.
- Integrate nursing process into patient care across diverse populations.
- Function as a healthcare team member to provide safe and effective care.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
PSYCH-198 Introduction to Psychology (or) PSYCH-231 Introductory Psychology	3
PSYCH-188 Developmental Psychology (or) PSYCH-238 Lifespan Psychology	3
SOCSCI-172 Introduction to Diversity Studies (or) SOCSCI-203 Introduction to Sociology (or) Any 200-level SOCSCI or HIST course	3
BIOSCI-177 General Anatomy and Physiology ‡ (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
BIOSCI-197 Microbiology ‡	4
ENG-196 Oral/Interpersonal Communication ‡ (or) Any 200-level ENG or SPEECH course	3
BIOSCI-179 Advanced Anatomy and Physiology ‡ (or) BIOSCI-202 Anatomy and Physiology 2 ‡	4
NRSAD-109 Nursing Complex Health Alterations 1 ‡	3
NRSAD-110 Mental Health Community Concepts ‡	2
NRSAD-191 Nursing Clinical Skill Development ‡	2
NRSAD-111 Nursing Intermediate Clinical Practice ‡	3
NRSAD-112 Nursing Advanced Skills ‡	1
NRSAD-113 Nursing Complex Health Alterations 2 ‡	3
NRSAD-114 Nursing Management and Professional Concepts ‡	2
NRSAD-115 Nursing Advanced Clinical Practice ‡	3
NRSAD-116 Nursing Clinical Transition ‡	2

CREDITS

Total credits needed to complete this degree

48

Note: Licensure as LPN required for this program.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



This program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; 404-975-5000; acenursing.org.

Medical Assistant

PROGRAM CODE: 31-509-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED required; biology coursework recommended. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Financial Aid Eligible: Yes. Apply at fafsa.gov. Use School Code 003866.

Program Description

The Medical Assistant program prepares individuals to assist physicians in their offices or other medical settings. Medical assistants perform a wide range of duties. The medical assistant is responsible for medical and surgical asepsis, taking vital signs, assisting the physician with examinations and surgery, administering ECGs, and administering medications.

Career Outlook

The demand for Certified Medical Assistants continues to grow. Graduates perform various functions such as drawing blood, administering EKGs and carrying out lab procedures.

Program Learning Outcomes

- Perform medical office administrative functions.
- Provide patient care in accordance with regulations, policies, laws and patient rights.
- Perform medical laboratory procedures.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
HEALTH-101 Medical Terminology *	3
HEALTH-107 Digital Literacy for Healthcare *	2
MEDAST-301 Medical Assistant Administrative Procedures ‡	2
MEDAST-302 Human Body in Health and Disease ‡	3
MEDAST-303 Medical Assistant Lab Procedures 1 ‡	2
MEDAST-304 Medical Assistant Clinical Procedures 1 ‡	4
MEDAST-309 Medical Law, Ethics and Professionalism	2
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
MEDAST-305 Medical Assistant Laboratory Procedures 2 ‡	2
MEDAST-306 Medical Assistant Clinical Procedures 2 ‡	3
MEDAST-307 Medical Office Insurance and Finance ‡	2
MEDAST-308 Pharmacology for Allied Health ‡	2
MEDAST-310 Medical Assistant Practicum ‡	3

CREDITS

Total credits needed to complete this diploma

33

‡ Prerequisite required.

* May be taken prior to entering the program.

All MEDAST courses must be completed within 18 months of starting technical courses in the program.

Program curriculum requirements are subject to change.

The medical assistant program at MATC has a job placement rate of 100% for the graduate cohort in 2020.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

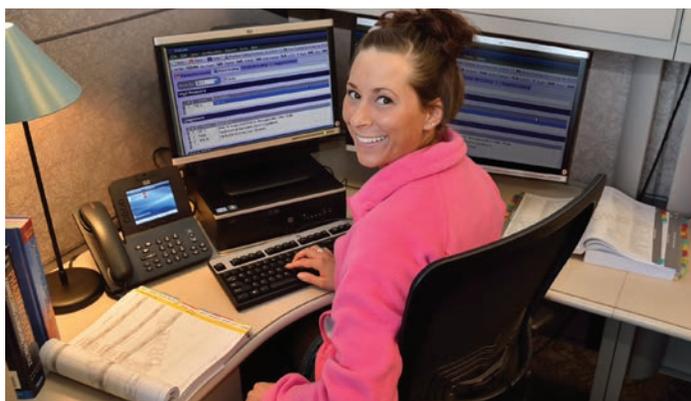
The medical assistant diploma program is accredited by the Commission on Accreditation of Allied Health Education Programs (caahep.org) upon the recommendation of the Medical Assisting Education Review Board. 2020 N. California Avenue, #213 Suite 7, Chicago, IL. 60647 maerb.org

Medical Coding Specialist

PROGRAM CODE: 31-530-2



Technical Diploma



Location: Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level chemistry required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Financial Aid Eligible: Yes. Apply at fafsa.gov. Use School Code 003866.

Program Description

You will be prepared as an entry-level coding specialist after learning medical diagnosis and procedure codes using two coding systems for billing and data collection. Graduates can be certified through the American Health Information Management Association and the American Academy of Professional Coders.

Career Outlook

Employment opportunities exist in hospitals, clinics and physicians' offices.

Program Learning Outcomes

- Collect health data.
- Model professional behaviors and ethics.
- Use electronic applications to support coding and data collection.
- Apply coding and reimbursement systems.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-189 Basic Anatomy	3
(or) BIOSCI-177 General Anatomy and Physiology ‡	
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1	
HEALTH-101 Medical Terminology ^	3
HEALTH-107 Digital Literacy for Healthcare ^	2
HIT-182 Human Disease for the Health Professions ‡	3
HIT-197 ICD Diagnosis Coding ‡	3
HIT-199 ICD Procedure Coding ‡	2
HEALTH-104 Contemporary Healthcare Practices ^	2
HIT-162 Foundations of HIM ‡	3
HIT-159 Healthcare Revenue Management	3
HIT-165 Intermediate Coding ‡	3
HIT-184 CPT Coding ‡	3

CREDITS

Total credits needed to complete this diploma

33

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Medical Interpreter

PROGRAM CODE: 31-538-1



Technical Diploma



COURSE	CREDITS
MEDINT-102 Spanish Regionalisms and English Variants.....	3
MEDINT-103 Introduction to Medical Interpretation ‡.....	3
MEDINT-104 Applied Medical Interpretation 1.....	3
MEDINT-107 Bilingual Medical Terminology.....	5
MEDINT-112 Dual Language Enhancement for Healthcare Providers ‡..	3
MEDINT-101 Cultural Awareness.....	3
MEDINT-106 Introduction to Medical Translation.....	3
MEDINT-108 Ethics and Standards for Medical Interpreters.....	3
MEDINT-110 Applied Medical Interpretation 2 ‡.....	3
MEDINT-111 Applied Medical Interpretation 3 ‡.....	3
PSYCH-199 Psychology of Human Relations.....	3

Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED required. This program admits students through a petition selection process. See the program’s webpage at matc.edu to view the petition process and all requirements.

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

35

‡ Prerequisite required.

Program curriculum requirements are subject to change.

All credits in this technical diploma must be earned at MATC with a 2.0 GPA or higher.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

This program is for bilingual (English/Spanish) students.

Interpreters form a vital link in providing better healthcare. This program prepares you for employment to facilitate the communication, in Spanish and English, between patients and medical personnel.

Career Outlook

The increasing demand for professional medical interpreters can be attributed to the need to provide quality care through effective communication and federal laws requiring language assistive services.

Program Learning Outcomes

- Interpret bilaterally into English or Spanish in real time.
- Render oral sight translations from English and Spanish texts.
- Translate English and Spanish documents into target language.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

Medical Laboratory Technician

PROGRAM CODE: 10-513-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level (or one college semester) algebra, biology and chemistry required. This program admits students through a petition selection process. See the program's webpage at matc.edu for all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Begin a rewarding healthcare career as a Medical Laboratory Technician (MLT). Students attend classes four to five days each week; clinical experiences near the program's end are arranged at clinical laboratories. Upon completion of the program, the student is eligible to write national certifying examination.

Career Outlook

Currently, the job market looks favorable. Opportunities exist in hospitals, clinics, doctors' offices, commercial industries, scientific research and infection control.

Program Learning Outcomes

- Practice laboratory safety and regulatory compliance.
- Collect and process biological specimens.
- Monitor and evaluate quality control in the laboratory.
- Apply modern clinical methodologies including problem solving and troubleshooting, according to predetermined criteria.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
CHEM-186 Introductory Biochemistry ‡	4
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
BIOSCI-197 Microbiology ‡.....	4
CLABT-110 Basic Lab Skills	1
CLABT-111 Phlebotomy ‡	2
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level SOCSCI or HIST course	
CLABT-113 QA Lab Math ‡	1
CLABT-114 Urinalysis ‡.....	2
CLABT-115 Basic Immunology Concepts ‡	2
CLABT-120 Basic Hematology ‡.....	3
CLABT-121 Coagulation ‡	1
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
CLABT-109 Blood Bank ‡.....	4
CLABT-116 Clinical Chemistry ‡.....	4
CLABT-170 Introduction to Molecular Diagnostics ‡.....	2
CLABT-130 Advanced Hematology ‡.....	2
CLABT-133 Clinical Microbiology ‡.....	4
CLABT-140 Advanced Microbiology ‡	2
CLABT-151 Clinical Experience 1 ‡.....	3
CLABT-143 Seminar ‡.....	1
CLABT-152 Clinical Experience 2 ‡.....	4

CREDITS

Total credits needed to complete this degree

62

‡ Prerequisite required.

Program curriculum requirements are subject to change.

The clinical experiences near the program's end are arranged at clinical laboratories. Service work cannot be substituted for the clinical experiences. Service work by students is non-compulsory outside of class hours. Students attending clinical cannot be used as staff replacement. Upon acceptance to the program and at the start of clinical, a formal faculty-led orientation will occur with all program students.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL 60018-5119; 773-714-8880; naacls.org.

Nursing Assistant

PROGRAM CODE: 30-543-1



Technical Diploma



COURSE

NRSNA-300 Nursing Assistant ‡ 2

CREDITS

CREDITS

Total credits needed to complete this diploma

2

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, West Allis Campus

Start Dates: Offered year-round

Admission Requirement: A high school diploma or GED is recommended. Health requirements, criminal background check and additional documents are required for admission; see this program’s webpage at matc.edu for details.

Program Description

Bilingual (Spanish) mode also is offered.

To become an entry-level bedside caregiver, you will learn basic nursing skills and procedures to assist others with their activities of daily living and specialized care needs. This program can fulfill the Nursing Assistant training requirement for admission into MATC’s nursing programs. High school students may be eligible for dual enrollment to earn college credits while in high school and have the opportunity for employment.

Career Outlook

Program graduates are prepared to work for nursing homes, hospitals, home-health agencies and private-duty practice settings.

Program Learning Outcomes

- Communicate effectively with clients, family and co-workers.
- Protect rights of clients.
- Demonstrate ethical and legal responsibilities.
- Work cooperatively in a team environment.
- Provide holistic, safe care to diverse populations.
- Demonstrate reporting and documentation



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

Nutrition and Dietetic Technician

PROGRAM CODE: 10-313-1



Associate Degree



Location: West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

See all program's requirements at matc.edu.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn how the science of managing food and nutrition helps promote good health. Dietetic technicians typically work as a member of the food service or healthcare team. MATC's program includes supervised clinical and field experiences. Graduates are eligible for technician membership in the Academy of Nutrition and Dietetics and will receive the title Nutrition and Dietetic Technician Registered (NDTR) after successfully completing the national registration exam.

Career Outlook

Dietetics is a vital, growing field. A dietetic technician typically works as a member of the food service or healthcare team.

Program Learning Outcomes

- Integrate scientific information and translate research into practice.
- Practice beliefs, values, attitudes and behaviors for the professional nutrition and dietetics technician level of practice.
- Develop information, products and services for individuals, groups and populations.
- Deliver information, products and services to individuals, groups and populations.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
DIETNT-106 Food Service Sanitation ‡ ^	2
DIETNT-109 Food Science ‡.....	3
DIETNT-123 Dietetic Technician Orientation ‡	1
DIETNT-151 Nutrition for Dietetics ‡ ^	4
DIETNT-160 Medical Terminology for the Dietetic Technician ‡	1
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
DIETNT-108 Food Service Management 1 ‡ ^	3
DIETNT-118 Food Service Management 1: Coordinated Practice ‡ ^.....	1
DIETNT-124 Medical Nutrition Therapy 1 ‡	3
DIETNT-134 Medical Nutrition Therapy 1: Coordinated Practice ‡	1
DIETNT-152 Physiology for Dietetics ‡	3
DIETNT-156 Nutrition in the Life Cycle ‡	2
DIETNT-166 Nutrition in the Life Cycle: Coordinated Practice ‡	1
MATH-107 College Mathematics ‡	3
(or) BIOSCI-220 Introduction to Nutritional Science	
DIETNT-125 Medical Nutrition Therapy 2 ‡	4
DIETNT-135 Medical Nutrition Therapy 2: Coordinated Practice ‡	2
DIETNT-155 Community Nutrition ‡	3
DIETNT-157 Food Service Management 2 ‡	3
DIETNT-167 Food Service Management 2: Coordinated Practice ‡	2
ENG-196 Oral/Interpersonal Communication ‡	3
(or) SPEECH-201 Elements of Speech	
DIETNT-136 Medical Nutrition Therapy Field Experience ‡	3
DIETNT-146 Food and Nutrition Management Field Experience ‡	3
DIETNT-170 Nutritional Counseling Skills ‡	2
PSYCH-199 Psychology of Human Relations	3
(or) PSYCH-231 Introductory Psychology	
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) SOCSCI-203 Introduction to Sociology	

CREDITS

Total credits needed to complete this degree

62

‡ Prerequisite required.

^ Students completing these four courses are eligible to take the Association of Nutrition and Foodservice Professionals Certified Dietary Manager examination.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995; 800-877-1600, ext. 5400; acend@eatright.org; <https://www.eatrightpro.org/acend>.

Occupational Therapy Assistant

PROGRAM CODE: 10-514-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school algebra, biology and chemistry are required. This program admits students through a petition selection process. See program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Use activities to help clients overcome difficulties with daily living, leisure and/or work skills, providing these services under the supervision of an occupational therapist. This program prepares you to become a Certified Occupational Therapy Assistant (COTA).

Career Outlook

Job outlook is good and placement is usually in hospitals, rehabilitation centers, geriatric centers, schools, homes and community-based settings.

Program Learning Outcomes

- Practice within the distinct role and responsibility of the occupational therapy assistant.
- Serve a diverse population in a variety of systems that are consistent with entry-level practice.
- Seek out learning opportunities to keep current with best practices.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡ and BIOSCI-202 Anatomy and Physiology 2 ‡	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
OTASST-171 Introduction to Occupational Therapy ‡.....	3
OTASST-172 Medical and Psychosocial Conditions ‡ #.....	3
OTASST-173 Activity Analysis and Application ‡.....	2
PSYCH-188 Developmental Psychology.....	3
(or) PSYCH-238 Lifespan Psychology	
PSYCH-199 Psychology of Human Relations.....	3
(or) PSYCH-231 Introductory Psychology	
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) Any 200-level HIST or SOCSCI course	
ENG-197 Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
OTASST-174 OT Performance Skills ‡.....	4
OTASST-176 OT Theory and Practice ‡.....	3
OTASST-178 Geriatric Practice ‡.....	3
OTASST-179 Community Practice ‡.....	2
OTASST-175 Psychosocial Practice ‡.....	3
OTASST-184 OTA Fieldwork 1‡.....	2
OTASST-189 OT Physical Rehabilitation Practice ‡.....	4
OTASST-190 OT Pediatric Practice ‡.....	4
OTASST-185 OTA Practice and Management ‡ #.....	2
OTASST-186 OTA Fieldwork 2A ‡ *.....	5
OTASST-187 OTA Fieldwork 2B ‡ *.....	5

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

OTASST-172 and OTASST-185 are online courses.

* OTASST-186 and OTASST-187 must be completed within 18 months following academic coursework.

OTA program must be completed within four years.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), of the American Occupational Therapy Association (AOTA), 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852-4929; 301-652-6611; acoteonline.org.

Pharmacy Technician

PROGRAM CODE: 31-536-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED required. See program's webpage at matc.edu to view all requirements.

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Gain the skills and knowledge needed to be a pharmacy technician in a variety of practice settings. Pharmacy technicians work under the supervision of a pharmacist. Graduates are prepared to take the Pharmacy Technician Certification Board's Certified Pharmacy Technician exam. All graduates must be 18 years of age or older.

Career Outlook

Due to the evolving role of the pharmacy technician and the aging population, there is a need for trained pharmacy technicians.

Program Learning Outcomes

- Demonstrate personal/interpersonal knowledge and skills in the practice of pharmacy.
- Demonstrate foundational professional knowledge and skills for the practice of pharmacy.
- Prepare prescriptions/medication orders and pharmaceutical products for dispensing, distribution and disposal.
- Compound sterile and nonsterile medications.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
HEALTH-101 Medical Terminology ^	3
HEALTH-104 Contemporary Healthcare Practices ^	2
HEALTH-107 Digital Literacy for Healthcare ^	2
PHARMT-300 Orientation to Pharmacy Operations ‡	1
PHARMT-302 Pharmaceutical Calculations ‡	2
PHARMT-303 Introduction to Drug Classification ‡	2
PHARMT-307 Community Pharmacy Lab ‡	1
PHARMT-395 Federal Laws, Ethics and Customer Service ‡	1
PHARMT-306 Pharmacy Clinical Experience 1 ‡	2
PHARMT-310 Institutional Pharmacy Practice ‡	1
PHARMT-312 Pharmacy Operations Laboratory ‡	3
PHARMT-314 Pharmacy Clinical Experience 2 ‡	2
PHARMT-315 Advanced Pharmacy Technician Lab ‡	1
PHARMT-317 Orientation - Sterile Solutions.....	1
PSYCH-199 Psychology of Human Relations..... (or) PSYCH-231 Introductory Psychology 1	3

CREDITS

Total credits needed to complete this diploma

30

‡ Prerequisite required.

^ Counts toward earning the Healthcare Customer Service certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the ASHP/ACPE Pharmacy Technician Accreditation Commission, 4500 East-West Highway, Suite 900, Bethesda, MD 20814; 301-664-8835; <https://www.ashp.org/professional-development/technician-program-accreditation>.

Phlebotomy

PROGRAM CODE: 30-513-1



Technical Diploma



COURSE	CREDITS
CLABT-110 Basic Lab Skills ‡	1
CLABT-111 Phlebotomy ‡	2
ENG-195 Written Communication ‡ * (or) ENG-201 English 1 ‡	3
HEALTH-101 Medical Terminology * ^	3
HEALTH-104 Contemporary Healthcare Practices ^	2
HEALTH-107 Digital Literacy for Healthcare * ^	2
MLABT-161 Computer Applications for the Medical Laboratory ‡	1
MLABT-166 Phlebotomy Clinical Experience ‡	3

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Program Description

Phlebotomists perform functions such as blood drawing, specimen processing, lab procedures and clerical duties. To prepare for this career, you will learn the theory and practical skills of phlebotomy through the on-campus laboratory sessions and experiences at local healthcare facilities.

Career Outlook

The demand for phlebotomists continues to grow.

Program Learning Outcomes

- Adhere to infection control and safe practices.
- Perform specimen collection.
- Process specimens.
- Comply with legal regulations.
- Model professional behaviors.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

17

‡ Prerequisite required.

* May be taken prior to entering the program.

^ Counts toward earning the Healthcare Customer Service certificate
Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:
Phlebotomy Technician.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL 60018-5119; 773-714-8880; naacls.org.

Physical Therapist Assistant

PROGRAM CODE: 10-524-1



Associate Degree



Location: Mequon Campus

Start Dates: January

Admission Requirement: High school diploma or GED, and one year of high school-level algebra, biology and chemistry or physics are required. This program admits students through a petition selection process. See program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Work with physical therapy patients in a hospital, rehabilitation center, school, clinic or other healthcare setting. Under the supervision of a physical therapist, duties include implementing treatment programs, teaching patients to perform exercises and daily living activities, and reporting the patient's progress.

Career Outlook

Employment is projected to grow due to increases in the geriatric population and the increased need for support personnel in this field.

Program Learning Outcomes

- Function under the supervision of a physical therapist in a safe, legal, professional and ethical manner to ensure the safety of patients, self and others throughout the clinical interaction.
- Demonstrate clear and collaborative communication with patients, families and healthcare team.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 or BIOSCI-202 ‡	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
PTASST-139 PTA Patient Interventions ‡	4
PTASST-140 PTA Professional Issues 1 ‡.....	2
PTASST-156 PTA Applied Kinesiology 1 ‡.....	4
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
PTASST-142 PTA Therapeutic Exercise ‡.....	3
PTASST-143 PTA Biophysical Agents ‡.....	4
PTASST-145 PTA Principles of Musculoskeletal Rehabilitation ‡.....	4
PTASST-157 PTA Applied Kinesiology 2 ‡.....	3
PTASST-144 PTA Principles of Neuromuscular Rehabilitation ‡.....	4
PTASST-146 PTA Management of Cardiopulmonary and Integumentary Conditions ‡.....	3
PTASST-147 PTA Clinical Practice 1 ‡.....	2
PTASST-148 PTA Clinical Practice 2 ‡.....	3
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) Any 200-level HIST or SOCSCI course	
MATH-107 College Mathematics ‡.....	3
(or) Any 200-level MATH course	
PTASST-149 PTA Rehabilitation Across the Lifespan ‡.....	2
PTASST-150 PTA Professional Issues 2 ‡.....	2
PTASST-151 PTA Clinical Practice 3 ‡.....	5

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), 3030 Potomac Avenue, Suite 100, Alexandria, VA 22305-3085; 800-999-2782; capteonline.org.

Practical Nursing

PROGRAM CODE: 31-543-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, and one year of high school-level biology and chemistry required. This program admits students through a petition selection process. See program's webpage at matc.edu to view details.

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

The Practical Nursing program exposes you to a variety of classroom and clinical experiences to prepare you for employment in nursing homes, hospitals and other healthcare settings. Upon program completion, you will be eligible to take the licensure exam for Practical Nurses (NCLEX-PN). Nursing Assistant training is required prior to petitioning for this program.

Career Outlook

Licensed practical nurses (LPNs) are in high demand in various healthcare settings.

Program Learning Outcomes

- Integrate Practical Nursing identity reflecting integrity, responsibility and nursing standards.
- Communicate basic information using multiple sources in nursing practice.
- Utilize theoretical knowledge to participate in decision making
- Apply the nursing process to basic client care across diverse populations
- Function as a healthcare team member to provide safe and effective care.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
NRSPN-301 Nursing Fundamentals.....	2
NRSPN-302 Nursing Skills ‡.....	3
NRSPN-303 Nursing: Pharmacology.....	2
NRSPN-304 Nursing: Introduction to Clinical Practice ‡.....	2
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
NRSPN-305 Nursing: Health Alterations ‡.....	3
NRSPN-306 Nursing: Health Promotion ‡.....	3
NRSPN-307 Nursing: Clinical Care Across the Lifespan ‡.....	2
NRSPN-308 Nursing: Introduction to Clinical Management ‡.....	2
PSYCH-198 Introduction to Psychology.....	3
(or) PSYCH-231 Introductory Psychology	
(or) PSYCH-188 Developmental Psychology	
(or) PSYCH-238 Lifespan Psychology	

CREDITS

Total credits needed to complete this diploma

32

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



This program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; 404-975-5000; acenursing.org.

Radiography

PROGRAM CODE: 10-526-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school-level biology, chemistry (or physics) and algebra required. This program admits students through a petition selection process. See program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Become part of the healthcare team as a radiographer working in medical imaging departments in medical clinics, hospitals and private offices. This is a full-time program with course sequencing that encompasses four semesters, a six-week summer session and six-week externship. Graduates are eligible for certification through American Registry of Radiologic Technologists (ARRT).

Career Outlook

Career areas include diagnostic radiology, bedside and trauma procedures, pediatric radiography, and special procedures.

Program Learning Outcomes

- Carry out the production and evaluation of radiographic images.
- Practice radiation safety principles.
- Provide quality patient care.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
RADT-149 Radiographic Procedures 1 ‡.....	5
RADT-158 Introduction to Radiography ‡.....	3
RADT-159 Radiographic Imaging ‡.....	3
RADT-168 Radiography Clinical 1 ‡.....	2
ENG-197 Technical Reporting ‡.....	3
(or) Any 200-level ENG or SPEECH course	
RADT-191 Radiographic Procedures 2 ‡.....	5
RADT-192 Radiography Clinical 2 ‡.....	3
RADT-230 Advanced Radiographic Imaging.....	2
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
RADT-189 Radiographic Pathology ‡.....	1
RADT-193 Radiography Clinical 3 ‡.....	3
RADT-194 Imaging Equipment Operation.....	3
RADT-199 Radiography Clinical 4 ‡.....	3
RADT-231 Imaging Modalities ‡.....	2
RADT-174 ARRT Certification Seminar ‡.....	2
RADT-190 Radiography Clinical 5 ‡.....	2
RADT-195 Radiographic Image Analysis.....	2
RADT-197 Radiation Protection and Biology ‡.....	3
RADT-198 Radiography Clinical 6 ‡.....	2
SOCSCI-103 Think Critically and Creatively	3
(or) Any 200-level SOCSCI course	

CREDITS

Total credits needed to complete this degree

62

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182; 312-704-5300; jrcert.org.

Registered Nursing

PROGRAM CODE: 10-543-1



Associate Degree



Location: Downtown Milwaukee Campus, Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school biology and chemistry are required. This program admits students through a petition selection process. See program's webpage at matc.edu to view details.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for a registered nursing (RN) career at MATC. Theory and lab courses on campus set the foundation for your clinical practice. Simulation and guided practice in clinical settings further prepare you for practice as an RN. Graduates are eligible to take the RN licensure exam (NCLEX-RN). Nursing Assistant training is required prior to petitioning for this program.

Career Outlook

Employers will expect graduates to have a plan for completing their Bachelor of Science in Nursing. Some BSN courses may be taken concurrently with the associate degree courses.

Program Learning Outcomes

- Integrate professional nursing identity reflecting integrity, responsibility and nursing standards.
- Communicate comprehensive information using multiple sources in nursing practice.
- Integrate theoretical knowledge to support decision-making.
- Integrate the nursing process into patient care across diverse populations.
- Function as a healthcare team member to provide safe and effective care.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
PSYCH-188 Developmental Psychology.....	3
(or) PSYCH-238 Lifespan Psychology	
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) SOCSCI-203 Introduction to Sociology	
BIOSCI-179 Advanced Anatomy and Physiology ‡.....	4
(or) BIOSCI-202 Anatomy and Physiology 2 ‡	
PSYCH-198 Introduction to Psychology.....	3
(or) PSYCH-231 Introductory Psychology	
BIOSCI-197 Microbiology ‡.....	4
ENG-196 Oral/Interpersonal Communication ‡.....	3
(or) Any 200-level ENG or SPEECH course	
NRSAD-101 Nursing Fundamentals ‡.....	2
NRSAD-102 Nursing Skills ‡.....	3
NRSAD-103 Nursing Pharmacology ‡.....	2
NRSAD-104 Nursing: Introduction to Nursing Practice ‡.....	2
NRSAD-105 Nursing Health Alterations ‡.....	3
NRSAD-106 Nursing Health Promotion ‡.....	3
NRSAD-107 Nursing: Clinical Care Across the Lifespan ‡.....	2
NRSAD-108 Nursing: Introduction to Clinical Management ‡.....	2
NRSAD-109 Nursing Complex Health Alterations 1 ‡.....	3
NRSAD-110 Mental Health Community Concepts ‡.....	2
NRSAD-111 Nursing Intermediate Clinical Practice ‡.....	3
NRSAD-112 Nursing Advanced Skills ‡.....	1
NRSAD-113 Nursing Complex Health Alterations 2 ‡.....	3
NRSAD-114 Nursing Management and Professional Concepts ‡.....	2
NRSAD-115 Nursing Advanced Clinical Practice ‡.....	3
NRSAD-116 Nursing Clinical Transition ‡.....	2

CREDITS

Total credits needed to complete this degree

65

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:

Nursing Associate Degree.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



This program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; 404-975-5000; acenursing.org.

Respiratory Therapy

PROGRAM CODE: 10-515-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school-level biology and chemistry are required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Enhance patient care by evaluating and treating people with lung and heart disease. Respiratory therapists' duties include administering treatments, recommending therapeutic interventions and operating life support systems. Graduates are qualified to sit for the National Board for Respiratory Care (NBRC) examinations.

Career Outlook

Respiratory therapists work in acute and subacute hospitals, diagnostic laboratories, rehabilitation facilities, clinics and home care.

Program Learning Outcomes

- Apply respiratory therapy concepts to patient care situations.
- Demonstrate technical proficiency required to fulfill the role of a respiratory therapist.
- Practice respiratory therapy according to established professional and ethical standards.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡.....	4
(or) BIOSCI-201 Anatomy and Physiology 1 ‡	
and BIOSCI-202 Anatomy and Physiology 2 ‡	
ELECTIVES (Two credits)	2
ENG-195 Written Communication ‡.....	3
(or) ENG-201 English 1 ‡	
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	
RESPC-111 Respiratory Survey ‡.....	3
RESPC-171 Respiratory Therapeutics 1 ‡	3
BIOSCI-197 Microbiology ‡.....	4
ENG-197 Technical Reporting ‡.....	3
RESPC-112 Respiratory Airway Management ‡.....	2
RESPC-172 Respiratory Therapeutics 2 ‡	3
RESPC-173 Respiratory Pharmacology ‡.....	3
RESPC-174 Respiratory Cardiac Physiology ‡	3
SOCSCI-172 Introduction to Diversity Studies.....	3
(or) Any 200-level SOCSCI course	
RESPC-175 Respiratory Clinical 1 ‡.....	2
RESPC-113 Respiratory Life Support ‡.....	3
RESPC-176 Respiratory Disease ‡	3
RESPC-178 Respiratory Clinical 2 ‡.....	3
RESPC-179 Respiratory Clinical 3 ‡.....	3
RESPC-180 Respiratory Neonatal and Pediatric Care ‡	2
RESPC-181 Respiratory/Cardio Diagnostics ‡	3
RESPC-182 Respiratory Clinical 4 ‡.....	3
RESPC-183 Respiratory Clinical 5 ‡.....	3

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation for Respiratory Care (CoARC), 264 Precision Boulevard, Telford, TN 37690; 817-283-2835; coarc.com.

Accreditation is based on recommendation of the Commission on Accreditation for Respiratory Care.

Surgical Technologist

PROGRAM CODE: 10-512-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra, biology and chemistry (or college equivalent) are required. This program admits students through a petition selection process. See the program's webpage at matc.edu to view the petition process and all requirements.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Surgical technologists work under direct supervision to facilitate safe, effective invasive surgical procedures. You will learn the application of sterile and aseptic technique to help ensure that the operating room environment is safe and equipment functions properly. Graduates are eligible to write the certification examination given by the National Board of Surgical Technology and Surgical Assisting to become a Certified Surgical Technologist.

Career Outlook

Entry-level positions are available in operating rooms and ambulatory surgery facilities.

Program Learning Outcomes

- Apply healthcare and technological science principles to the perioperative environment.
- Maintain principles of sterile technique in the surgical environment.



Complete Program Details

QUESTIONS? 414-297-6263, 262-238-2281 or healthpathway@matc.edu

COURSE	CREDITS
BIOSCI-177 General Anatomy and Physiology ‡ * 4 (or) BIOSCI-201 Anatomy and Physiology 1 ‡	4
BIOSCI-179 Advanced Anatomy and Physiology ‡ 4 (or) BIOSCI-202 Anatomy and Physiology 2 ‡	4
BIOSCI-197 Microbiology ‡..... 4	4
ENG-195 Written Communication ‡ 3 (or) ENG-201 English 1 ‡	3
PSYCH-199 Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course	3
SOCSCI-172 Introduction to Diversity Studies..... 3 (or) Any 200-level SOCSCI course	3
HEALTH-101 Medical Terminology 3	3
SURGT-125 Introduction to Surgical Technology ‡ 4	4
SURGT-126 Surgical Tech Fundamentals 1 ‡..... 4	4
SURGT-127 Exploring Surgical Issues ‡..... 2	2
SURGT-129 Surgical Pharmacology ‡..... 2	2
ENG-197 Technical Reporting ‡..... 3 (or) Any 200-level ENG or SPEECH course	3
SURGT-128 Surgical Tech Fundamentals 2 ‡..... 4	4
SURGT-130 Surgical Skills Application ‡ 2	2
SURGT-132 Surgical Tech Clinical 1 ‡ 3	3
SURGT-131 Surgical Interventions 1 ‡..... 4	4
SURGT-133 Surgical Tech Clinical 2 ‡ 3	3
SURGT-135 Surgical Tech Clinical 3 ‡ 3	3
SURGT-142 Surgical Interventions II ‡..... 4	4
SURGT-136 Surgical Tech Clinical 4 ‡ 3	3

CREDITS

Total credits needed to complete this degree

65

‡ Prerequisite required.

* Taken prior to first-semester courses.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th Street N, #7709, Seminole, FL 33775; 727-210-2350; caahep.org/Students/Program-Info/Surgical-Technology.aspx.

Accreditation is based on recommendation of the Accreditation Review Committee on Education in Surgical Technology.

MANUFACTURING, CONSTRUCTION & TRANSPORTATION

If you are looking to further your education by obtaining a technical diploma or associate degree, or to experience on-the-job training with an apprenticeship, this Pathway will prepare you for career opportunities in the manufacturing, construction or transportation industries. Our convenient campus locations feature state-of-the-art labs and equipment. MATC provides the hands-on, real-world instruction that employers value, giving you the educational experience needed to join the community of certified professionals.

Pathway Offices

Downtown Milwaukee Campus, T Building, Room T200, **414-297-8901**

Mequon Campus, Room A108

Oak Creek Campus, Room B113

West Allis Campus, Room 103

Education Center at Walker's Square, Room 205A

mctpathway@matc.edu



Air Conditioning and Refrigeration Technology AD
Architectural Woodworking/Cabinetmaking TD
Auto Collision Repair and Finish Technician TD
Automotive Express Lube Technician C
Automotive Maintenance Technician TD
Automotive Technology – Comprehensive AD
Automotive Technology Maintenance Light Repair TD
Aviation Maintenance Technician – General Cert (amt -G) C
Aviation Technician – Airframe TD
Aviation Technician - Powerplant TD
Boiler Operator C
Bricklaying TD
Building Automated Systems Technician TD
Carpentry TD
CNC Setup and Operations C
CNC Swiss Multi-Axis Machining TD
CNC Technician TD
Dental Technician TD

Diesel and Powertrain Servicing TD
Electrical Power Distribution TD
Electricity TD
Landscape Horticulture Technician TD
Landscape Horticulture AD
Machine Tool Operations TD
Manufacturing Maintenance TD
Mechanical and Computer Drafting TD
Power Engineering and Boiler Operator TD
Preparatory Plumbing TD
Refrigeration, Air Conditioning and Heating Service Technician TD
Technical Studies Apprentice
Tool and Die Making TD
Truck Driving TD
Welding Fundamentals C
Welding Technology AD
Welding TD



AD Associate Degree program
TD Technical Diploma program
C Certificate program

Air Conditioning and Refrigeration Technology

PROGRAM CODE: 10-601-1



Associate Degree



COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
HVAC2-109	Introduction to the HVAC Industry 1
HVAC2-110	Air Conditioning Fundamentals 3
HVAC2-113	Electrical Fundamentals 3
HVAC2-132	Architectural and Mechanical Fundamentals 4
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG course
HVAC2-114	Electrical Controls and Systems ‡ 4
HVAC2-115	Refrigeration 1 ‡ 4
HVAC2-120	Heating Systems 1 ‡ 4
HVAC2-116	Refrigeration 2 ‡ 4
HVAC2-121	Heating Systems 2 ‡ 4
HVAC2-146	Digital Energy Management Systems ‡ 2
HVAC2-148	Heat Pumps ‡ 3
MATH-107	College Mathematics ‡ 3 (or) Any 200-level MATH course
HVAC2-125	Control Application and Circuits ‡ 4
HVAC2-126	Air Conditioning Systems ‡ 3
HVAC2-144	Servicing and Troubleshooting Refrigeration and Air Conditioning ‡ 3
HVAC2-150	Wiring Diagram Interpretation ‡ 2
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI or HIST course
ELECTIVE	One credit required 1

Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Ensure comfortable environments in homes and businesses. Students attain a background in mathematics, drafting, electricity and thermodynamics. Co-op credit may be available for appropriate employment opportunities.

Career Outlook

There is a steady demand for trained air conditioning and refrigeration technicians.

Program Learning Outcomes

- Install HVAC/R components.
- Service HVAC/R systems.
- Troubleshoot HVAC/R systems.
- Evaluate HVAC/R system designs.

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:
Air Conditioning, Heating and Refrigeration Technology.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by HVAC Excellence, P.O. Box 521, Mt. Prospect, IL 60056; 800-726-9696; escogroup.org/accreditation.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Architectural Woodworking/Cabinetmaking

PROGRAM CODE: 31-409-1



Technical Diploma



Location: MATC Education Center at Walker's Square, Oak Creek Campus

Start Dates: August

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Attain the skills needed to work in cabinet shops, millwork shops, furniture factories, display shops and maintenance shops. The curriculum includes how to read blueprints, make detailed drawings and use machinery.

Career Outlook

The employment outlook is favorable for workers with current training.

Program Learning Outcomes

- Read blueprints.
- Set up machinery.
- Operate saws, joiners, planers, shapers, sanders and other woodworking machinery.
- Assemble parts.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
CABMIL-300 Machine Maintenance/Jigs and Fixtures.....	2
CABMIL-303 Woodworking 1	5
CABMIL-304 Woodworking Fundamentals	3
CABMIL-355 Materials and Construction.....	1
CABMIL-385 Cabinet Detailing ‡	2
CIVIL-108 Construction Computer Applications.....	1
CONSTR-380 Mathematics for Construction Trades.....	1
ENG-340 Workplace Communication	2
(or) ENG-195 Written Communication ‡	
CABMIL-305 Woodworking 2	5
CABMIL-306 Advanced Woodworking	3
CABMIL-383 Quantity Survey 1	2
CABMIL-386 Cabinet Layout	2
MCDESG-120 Basic AutoCAD	1
CABMIL-353 Wood Finishing.....	1

CREDITS

Total credits needed to complete this diploma

31

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Auto Collision Repair and Finish Technician

PROGRAM CODE: 31-405-1



Technical Diploma



COURSE	CREDITS
AUTOBY-322 Sheet Metal Correction and Fundamentals ‡	4
AUTOBY-301 Plastic and Composites Repair ‡	1
AUTOBY-323 Estimating and Damage Analysis ‡	1
AUTOBY-325 Refinishing 1 and Personal Safety ‡	2
AUTOBY-304 Basic Auto Mechanical Systems	1
AUTOBY-326 Sheet Metal Correction and Refinishing 2 ‡	4
AUTOBY-312 Electrical Servicing for Auto Body Repairing	1
AUTOBY-316 Applied Collision Repair 1 ‡	5
AUTOBY-317 Frame Measuring and Setup ‡	2
ENG-340 Workplace Communication	2
(or) ENG-195 Written Communication ‡	
(or) Any 200-level ENG course	
WELD-340 Welding for Auto Body Technicians	2
AUTOBY-313 Introduction to Color Match and Aluminum ‡	1
AUTOBY-314 Front-End Alignment	1
AUTOBY-315 Applied Collision Repair 2 ‡	5

Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED recommended

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Get started in an auto repair career. This program prepares you for employment with automobile dealerships, body shops and manufacturing jobs requiring spray painting ability. With instructor's consent, portions of this program may be taken off campus for co-op credit.

Career Outlook

Employment prospects are good for trained technicians.

Program Learning Outcomes

- Straighten collision damaged sheet metal.
- Refinish automobile body parts.
- Replace nonstructural panels and parts.
- Perform collision repair welding procedures.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

32

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Automotive Express Lube Technician

PROGRAM CODE: 61-404-1



Certificate



COURSE		CREDITS
AUTO1-300	Express Service.....	2
AUTO1-308	Brakes, Steering, Suspension Fundamentals.....	2
AUTO1-310	Brakes, Steering, Suspension Lab 1 ‡.....	4
AUTO1-312	Brakes, Steering, Suspension Lab 2 ‡.....	2

CREDITS

Total credits needed to complete this certificate

10

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED recommended

Program Description

Drive your future forward by entering the automotive maintenance field. This certificate covers inspection and maintenance of automotive brakes, steering and suspension components, and it provides instruction on express lube services. The lab courses feature hands-on learning with lab mock-ups and vehicles.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Automotive Maintenance Technician

PROGRAM CODE: 31-404-3



Technical Diploma



Location: Downtown Milwaukee Campus,
Oak Creek Campus (primary location)

Start Dates: August, October, January and March

Admission Requirement: High school diploma or GED recommended

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Expand your employment options by gaining skills to service and repair the many complex systems of automobiles through this program.

Career Outlook

Job duties may include new car predelivery inspection, wheel alignment, tire balancing, electrical systems, and engine and transmission repair.

Program Learning Outcomes

- Demonstrate professionalism appropriate for the auto industry.
- Perform maintenance and light repair of automotive steering and suspension systems.
- Perform maintenance and light repair of automotive brake systems.
- Perform maintenance and light repair of automotive electrical and electronic systems.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
AUT01-300 Express Service ^	2
AUT01-302 Powertrain Maintenance and Light Repair Fundamentals..	2
AUT01-304 Powertrain Maintenance and Light Repair Lab ‡	4
AUT01-306 Heating and Air Conditioning Fundamentals	2
AUT01-308 Brakes, Steering, Suspension Fundamentals ^	2
AUT01-310 Brakes, Steering, Suspension Lab 1 ‡ ^.....	4
AUT01-312 Brakes, Steering, Suspension Lab 2 ‡ ^.....	2
AUT01-314 Electrical and Electronics Fundamentals	2
AUT01-316 Electrical and Electronics Lab ‡.....	4
AUT01-318 Auto Instrumentation and Accessories ‡	2
AUT01-322 Engine Control Systems 1 Fundamentals ‡.....	2
AUT01-324 Engine Control Systems 1 Lab ‡.....	4
AUT01-326 Engine Control Systems 2 Fundamentals/Lab ‡	2
ENG-340 Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	

CREDITS

Total credits needed to complete this diploma

36

‡ Prerequisite required.

^ Counts toward earning the Automotive Express Lube Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the ASE Education Foundation, 1503 Edwards Ferry Road NE, Suite 401, Leesburg, VA 20176; 703-669-6650; aseeducationfoundation.org.

Automotive Technology – Comprehensive

PROGRAM CODE: 10-602-6



Associate Degree



Location: Mequon Campus

Start Dates: August and October

Admission Requirement: High school diploma or GED
Dealership sponsor is required to provide applied automotive experience opportunities; program advisors will help locate a sponsor.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Bumper-to-bumper diagnostics, repairs and preventive maintenance will be taught on cars and light trucks. The Automotive Technology programs are: Ford ASSET (Automotive Student Service Educational Training), MOPAR CAP (Career Automotive Program) and CART (Comprehensive Automotive Repair Technology). Manufacturer credentials are earned in ASSET and CAP programs.

Career Outlook

The demand for trained automotive technicians is high.

Program Learning Outcomes

- Demonstrate professionalism appropriate for the auto service industry.
- Perform diagnosis, service, and repair of automotive internal combustion engines.
- Perform diagnosis, service, and repair of automotive automatic transmissions/transaxle systems.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
AUTO2-150	Automotive Fundamentals ^..... 2
AUTO2-151	Electrical Systems 1 ‡ ^ 4
AUTO2-152	Automotive Climate Control ‡ ^..... 2
AUTO2-154	Fuel Management 1 ‡ ^..... 2
AUTO2-161	Express Service ‡ ^ 3
AUTO2-164	Applied Automotive Experience 1 ‡ 1
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
AUTO2-147	Electrical Systems 2 ‡ ^ 2
AUTO2-153	Alignment, Suspension and Steering ‡ ^..... 3
AUTO2-159	Automotive Brakes ‡ ^ 4
AUTO2-165	Applied Automotive Experience 2 ‡ 1
ECON-195	Economics ^ 3 (or) ECON-219 Personal Finance and Consumer Economics
PSYCH-199	Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course
AUTO2-148	Manual Transmissions and Drivelines ‡..... 2
AUTO2-155	Fuel Management 2 ‡..... 4
AUTO2-160	Automotive Accessories ‡ 3
AUTO2-166	Applied Automotive Experience 3 ‡ 1
GEOSCI-112	Principles of Sustainability..... 3 (or) Any 200-level BIOSCI, CHEM, GEOSCI, PHYS course
AUTO2-156	Fuel Management 3 ‡..... 4
AUTO2-157	Engine Concepts ‡..... 4
AUTO2-158	Automotive Transmissions ‡..... 4
AUTO2-167	Applied Automotive Experience 4 ‡ 1
ENG-196	Oral/Interpersonal Communication ‡..... 3 (or) Any 200-level ENG course

CREDITS

Total credits needed to complete this degree

62

‡ Prerequisite required.

^ Counts toward earning the Automotive Technology Maintenance Light Repair technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the ASE Education Foundation
1503 Edwards Ferry Road NE, Suite 401
Leesburg, VA 20176; 703-669-6650
aseeducationfoundation.org.



Technical Diploma

Automotive Technology Maintenance Light Repair

PROGRAM CODE: 30-602-4



COURSE		CREDITS
AUTO2-150	Automotive Fundamentals	2
AUTO2-151	Electrical Systems 1 ‡	4
AUTO2-161	Express Service ‡	3
ECON-195	Economics	3
	(or) ECON-219 Personal Finance and Consumer Economics	
AUTO2-147	Electrical Systems 2 ‡	2
AUTO2-152	Automotive Climate Control ‡	2
AUTO2-153	Alignment, Suspension and Steering ‡	3
AUTO2-154	Fuel Management 1 ‡	2
AUTO2-159	Automotive Brakes ‡	4

Location: Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

25

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

Get your career started quickly with the skills employers seek for light-duty repair technicians. You will learn to perform basic maintenance and repairs on automotive electrical, brake, steering, suspension and climate control systems.

Career Outlook

Entry-level technicians are in demand at automotive dealerships and repair garages.

Program Learning Outcomes

- Demonstrate professionalism appropriate for the auto service industry.
- Perform diagnosis, service and repair of automotive steering and suspension systems.
- Perform diagnosis, service and repair of automotive brake systems.
- Perform diagnosis, service and repair of automotive electrical and electronic systems.
- Perform diagnosis, service and repair of automotive heating and air conditioning systems.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Aviation Maintenance Technician – General (AMT-G Cert.)



Certificate

PROGRAM CODE: 61-486-1



COURSE	CREDITS
AVITEC-323 Aircraft Ground Operation and Servicing	3
AVITEC-380 Basic Physics	1
AVITEC-381 Basic Electricity.....	3
AVITEC-382 Aircraft Materials and Their Inspection.....	3
AVITEC-383 Aircraft Maintenance Publications, Records and Mechanics Regulations	1
AVITEC-393 Mathematics for Aviation Technicians.....	2
ENG-340 Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	

CREDITS

Total credits needed to complete this certificate

15

Location: FAA-Certified MATC Aviation Center (Oak Creek Campus)

Start Dates: August

Admission Requirement: High school diploma or GED

Program Description

Complete this certificate certified by the Federal Aviation Administration and you will be prepared for entry-level work as a line service technician assisting certified aircraft mechanics and structural assemblers, or you could work in airfield ground support positions. MATC's Aviation Center is at 422 East College Avenue, east of the Oak Creek Campus.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

The Aviation Maintenance Technician - General (AMT-G Cert.) is certified by the U.S. Department of Transportation, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591;

faa.gov; FAA (Federal Aviation Administration) CFR (Code of Federal Regulations) Part 147 Aviation Maintenance Technician School.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Aviation Technician – Airframe

PROGRAM CODE: 31-486-1



Technical Diploma



COURSE	CREDITS
GENERAL COMPONENT: AVIATION TECHNICIAN	
AVITEC-323 Aircraft Ground Operation and Servicing ^	3
AVITEC-380 Basic Physics ^	1
AVITEC-381 Basic Electricity ^	3
AVITEC-382 Aircraft Materials and Their Inspection ^	3
AVITEC-383 Aircraft Maintenance Publications, Records and Mechanics Regulations ^	1
AVITEC-393 Mathematics for Aviation Technicians ^	2
ENG-340 Workplace Communication ^ (or) ENG-195 Written Communication ‡	2

Location: FAA-Certified MATC Aviation Center (Oak Creek Campus)

Start Dates: January

Admission Requirement: High school diploma or GED, completion of the Aviation Technician General Component or instructor approval. Background in mathematics and the physical sciences recommended.

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Get qualified to maintain aircraft electrical, instrument and power control systems. Program is certified by the Federal Aviation Administration. (A companion program in powerplant maintenance also is offered.) MATC's Aviation Center is at 422 East College Avenue, east of the Oak Creek Campus.

Career Outlook

Skilled aviation mechanics with versatile knowledge are in demand.

Program Learning Outcomes

- Read and comprehend aircraft maintenance manuals.
- Pinpoint aircraft malfunctions using schematics and diagnostic equipment.
- Repair airframe structures and return aircrafts to service.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

15

AVIATION TECHNICIAN – AIRFRAME

AVITEC-320 Aircraft Electrical Systems	4
AVITEC-340 Aircraft Welding	1
AVITEC-367 Aircraft Composite Structures	3
AVITEC-368 Aircraft Structures	3
AVITEC-370 Aircraft Instrument, Control, and Warning Systems 1	5
AVITEC-371 Aircraft Instrument, Control, and Warning Systems 2 ‡	1
AVITEC-372 Hydraulic and Pneumatic Power Systems	4
AVITEC-376 Airframe Maintenance	4

CREDITS

Total credits needed to complete this diploma

25

‡ Prerequisite required.

^ Counts toward earning the Aviation Maintenance Technician – General certificate.

Program curriculum requirements are subject to change.

Student must maintain a 2.0 grade-point average in the General Component to be eligible for the Airframe program.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is certified by the U.S. Department of Transportation, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; faa.gov; FAA (Federal Aviation Administration) CFR (Code of Federal Regulations) Part 147 Aviation Maintenance Technician School.

Aviation Technician – Powerplant

PROGRAM CODE: 31-486-2



Technical Diploma



COURSE	CREDITS
GENERAL COMPONENT: AVIATION TECHNICIAN	
AVITEC-323 Aircraft Ground Operation and Servicing ^	3
AVITEC-380 Basic Physics ^	1
AVITEC-381 Basic Electricity ^	3
AVITEC-382 Aircraft Materials and Their Inspection ^	3
AVITEC-383 Aircraft Maintenance Publications, Records and Mechanics Regulations ^	1
AVITEC-393 Mathematics for Aviation Technicians ^	2
ENG-340 Workplace Communication ^ (or) ENG-195 Written Communication ‡	2

Location: FAA-Certified MATC Aviation Center (Oak Creek Campus)

Start Dates: October

Admission Requirement: High school diploma or GED Completion of the Aviation Technician General Component or instructor approval. Background in mathematics and the physical sciences recommended.

Financial Aid Eligible: Yes. Apply at fafsa.gov. Use School Code 003866.

Program Description

This specialized, high-demand training program concentrates on aircraft engine and propeller systems. Program is certified by the Federal Aviation Administration. (A companion program in airframe maintenance also is offered.) MATC's Aviation Center is at 422 East College Avenue, east of the Oak Creek Campus.

Career Outlook

Aircraft propulsion mechanics remain in high demand.

Program Learning Outcomes

- Read and comprehend aircraft maintenance manuals.
- Analyze and repair powerplant malfunctions.
- Maintain aircraft powerplant subsystems and determine their airworthiness.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

15

AVIATION TECHNICIAN – POWERPLANT

AVITEC-302 Engine Fuel Metering Systems	2
AVITEC-303 Powerplant Electrical and Instrument Systems	5
AVITEC-304 Aircraft Induction and Supercharging Systems	1
AVITEC-306 Engine Lubricating Systems	2
AVITEC-315 Aircraft Reciprocating Engines 1	2
AVITEC-316 Aircraft Reciprocating Engines 2 ‡	4
AVITEC-318 Aircraft Gas Turbine Engines 1	2
AVITEC-319 Aircraft Gas Turbine Engines 2 ‡	5
AVITEC-360 Propeller Systems	2

CREDITS

Total credits needed to complete this diploma

25

‡ Prerequisite required.

^ Counts toward earning the Aviation Maintenance Technician – General certificate.

Program curriculum requirements are subject to change.

Student must maintain a 2.0 grade-point average in the General Component to be eligible for the Airframe program.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is certified by the U.S. Department of Transportation, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591;

faa.gov; FAA (Federal Aviation Administration) CFR (Code of Federal Regulations) Part 147 Aviation Maintenance Technician School.

Boiler Operator

PROGRAM CODE: 61-428-1



Certificate



COURSE	CREDITS
POWENG-330 Low Pressure Boilers.....	1
POWENG-331 High Pressure Boilers	2
POWENG-332 Boiler Operation.....	1

CREDITS

Total credits needed to complete this certificate

4

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

Use your mechanical aptitude and prepare for employment as a boiler operator, facilities maintenance mechanic or power engineer through this certificate's coursework.

At the workplace, job responsibilities typically include regulating equipment; ensuring that equipment operates safely and economically; and monitoring meters, gauges and computerized controls.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Bricklaying

PROGRAM CODE: 30-408-2



Technical Diploma



COURSE	CREDITS
CIVIL-308	Computer Applications for the Trades..... 1
CONSTR-302	OSHA Safety/CPR for the Trades ‡ 1
CONSTR-380	Mathematics for Construction Trades..... 1
ENG-340	Workplace Communication 2 (or) ENG-195 Written Communication ‡
MASON-190	Current Topics in Masonry..... 1
MASON-300	Fundamental Bricklaying ‡ 5
MASON-303	Advanced Bricklaying ‡ 5
MASON-308	Job Safety and Layout ‡ 1
MASON-356	Methods 1 - Fundamentals ‡ 2

CREDITS
Total credits needed to complete this diploma

19

Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: MATC Education Center at Walker's Square
Start Dates: August and January
Admission Requirement: High school diploma or GED

Program Description

Designed to prepare you to enter the masonry trade, this program teaches the fundamentals of laying block and brick. The program was developed with the assistance of local tradespeople and contractors. Graduates enter the field as a starting bricklayer. Classes are held at the MATC Education Center at Walker's Square, 816 West National Avenue, Milwaukee.

Career Outlook

Increased building construction has resulted in a need for bricklayers.

Program Learning Outcomes

- Lay brick and block.
- Examine residential, commercial and industrial methods of construction.
- Apply required OSHA safety standards in construction work.
- Demonstrate a professional demeanor as it applies to the trade.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Building Automated Systems Technician

PROGRAM CODE: 30-481-1



Technical Diploma



COURSE		CREDITS
BAS-140	Building Systems 1	3
BAS-141	Building Systems 2	2
BAS-142	Measurement and Verification	1
BAS-143	Electrical Concepts/Control 1	2
BAS-144	Control Theory 2 ‡	2
BAS-150	Energy Auditing	2
BAS-145	Control Theory 3 ‡	2
BAS-148	Automated Building Control Systems ‡	4
BAS-149	Networking Automated Building Systems	4
BAS-151	Commissioning Automated Building Systems	2
BAS-153	ABS Capstone Project Course ‡	1

Location: Center for Energy Conservation and Advanced Manufacturing (ECAM) at Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

25

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

Learn about emerging technologies and gain the entry-level skills required for careers as technicians and specialists in building automation and controls. This industry encompasses a broad range of technologies used to efficiently control electrical and mechanical systems in commercial, industrial and institutional buildings. Courses are taught in the Building Automated Systems Lab.

Career Outlook

In this field, there is potential for advancement, progressing from entry-level installation work to troubleshooting and programming duties to facility management.

Program Learning Outcomes

- Perform building and energy use assessments.
- Install equipment and materials.
- Service building automation systems.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Carpentry

PROGRAM CODE: 31-410-1



Technical Diploma



Location: MATC Education Center at Walker's Square, Oak Creek Campus

Start Dates: August

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares you for working on residential and commercial structures. You will learn about reading construction blueprints, the various materials and fasteners used, and the fundamental techniques used in wood-frame construction.

Career Outlook

As residential and commercial structures continue to be built and remodeled, there is a steady demand for carpenters.

Program Learning Outcomes

- Use hand and power tools and equipment.
- Apply industry-recognized safety practices and procedures.
- Analyze sustainable building practices.
- Interpret construction drawings.
- Interpret building codes.
- Demonstrate industry building practices and material application.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
CABMIL-340 Millwork for Carpenters ‡	2
CARP-301 House Framing ‡	5
CARP-304 House Framing Fundamentals ‡	3
CARP-351 Building Materials ‡	1
CARP-385 Blueprint Reading 1 ‡	2
CONSTR-302 OSHA Safety/CPR for the Trades ‡	1
CONSTR-380 Mathematics for Construction Trades	1
ENG-340 Workplace Communication (or) ENG-195 Written Communication ‡	2
CABMIL-341 Millwork Techniques ‡	2
CARP-303 Roof Framing	5
CARP-306 Exterior and Interior Finishing ‡	5
CARP-315 Energy Efficiency in Residential Construction	1
CARP-383 Quantity Survey ‡	2
CARP-387 Commercial Blueprint Reading ‡	1

CREDITS

Total credits needed to complete this diploma

33

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

MATC Education Center at Walker's Square is located at 816 West National Avenue, Milwaukee.

CNC Setup and Operations

PROGRAM CODE: 61-420-3



Certificate



COURSE	CREDITS
MACHTL-309 Manual Vertical Milling Machine 1	3
MACHTL-310 Manual Vertical Milling Machine 2 ‡	3
MACHTL-360 Metrology	1
MACHTL-384 Machine Trades Mathematics 1	1
MDRAFT-385 Machine Blueprint Reading 1	1
MACHTL-304 Introduction to CNC Programming ‡	1
MACHTL-322 Introduction to CNC Vertical Machining Centers ‡	4
MACHTL-385 Machine Trades Mathematics 2 ‡	1
MDRAFT-386 Machine Blueprint Reading 2 ‡	1

CREDITS

Total credits needed to complete this certificate

16

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED recommended

Program Description

This is an accelerated, stand-alone short-term certificate to help students get into the workforce faster in a specific part of the machining field. Workplace opportunities will depend on which machines the student will be able to run based on the training received.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

CNC Swiss Multi-Axis Machining

PROGRAM CODE: 31-420-9



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn in-demand skills for machine tool operations. Students gain hands-on experience in Computer Numerical Control (CNC) machine setup and operation. CNC machine tool operators with up-to-date experience are in high demand. You can earn the CNC Swiss Multi-Axis Machining technical diploma on the way to completing this program. After earning this diploma, you can apply your credits toward completing the CNC Technician technical diploma.

Career Outlook

Because of the high volume of manufacturing that takes place in southeastern Wisconsin, CNC machine operators and setup people have marketable skills. Graduates of the program locate positions in which they are expected to set up, operate and interpret the CNC programs of the machine tools. These machines perform a variety of manufacturing processes, such as turning, milling, drilling, threading and contouring.

Program Learning Outcomes

- Apply basic safety practices in the machine shop.
- Interpret industrial/engineering drawings.
- Apply precision measuring methods to part inspection.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE

CREDITS

MACHTL-347	Single Spindle Auto Screw Machine 1.....	3
MACHTL-348	Single Spindle Auto Screw Machine 2 ‡.....	3
MACHTL-361	Multiple Spindle Auto Screw Machine 1 ‡.....	3
MACHTL-362	Multiple Spindle Auto Screw Machine 2 ‡.....	3
MACHTL-360	Metrology.....	1
MACHTL-384	Machine Trades Math 1.....	1
MDRAFT-385	Machine Blueprint Reading 1.....	1
MACHTL-367	Machine Tool Technology.....	1
ENG-340	Workplace Communication.....	2
	(or) ENG-195 Written Communication	
MACHTL-371	CNC Swiss Turning Center 1.....	4
MACHTL-372	CNC Swiss Turning Center 2 ‡.....	4
MACHTL-373	CNC Swiss Turning Center 3 ‡.....	4
MACHTL-304	Introduction to CNC Programming ‡.....	1
MACHTL-385	Machine Trades Math 2 ‡.....	1
MDRAFT-386	Machine Blueprint Reading 2 ‡.....	1
MACHTL-391	Quality Control ‡.....	1

CREDITS

Total credits needed to complete this diploma

34

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Computer Numerical Control (CNC) Technician

PROGRAM CODE: 32-444-1



Technical Diploma



Location: Downtown Milwaukee Campus (year one only), Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, completion of Machine Tool Operations technical diploma program and two years of hands-on CNC machine tool experience

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

MATC's equipment includes industrial-based CNC machining centers and turning centers, and computer-aided design/computer-aided manufacturing (CAD/CAM) workstations. Students gain hands-on experience in all phases of programming and operations.

Career Outlook

Large and small manufacturers employ CNC machine operators/programmers. Due to the high number of industrial companies in southeastern Wisconsin, there is a need for skilled people.

Program Learning Outcomes

- Apply basic safety practices in the machine shop
- Interpret industrial/engineering drawings
- Apply precision measuring methods to part inspection
- Perform advanced machine tool equipment setup and operation
- Perform advanced programming, setup and operation of CNC Machine Tools



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
MACHTL-360 Metrology ^	1
MACHTL-367 Machine Tool Technology ^	1
MACHTL-384 Machine Trades Mathematics 1 ^	1
MDRAFT-385 Machine Blueprint Reading 1 ^	1
MACHTL-300 Engine Lathe 1 (Turning) ^	3
MACHTL-301 Engine Lathe 2 (Turning) ‡ ^	3
MACHTL-309 Manual Vertical Milling Machine 1 ^	3
MACHTL-310 Manual Vertical Milling Machine 2 ‡ ^	3
ENG-340 Workplace Communication ^	2
(or) ENG-195 Written Communication ‡	
MACHTL-304 Introduction to CNC Programming ‡ ^	1
MACHTL-385 Machine Trades Mathematics 2 ‡ ^	1
MACHTL-391 Quality Control ‡ ^	1
MDRAFT-386 Machine Blueprint Reading 2 ‡ ^	1
MACHTL-320 Introduction to CNC Turning Centers ‡ ^	4
MACHTL-322 Introduction to CNC Vertical Machining Centers ‡ ^	4
MACHTL-325 Surface Grinding ^	4
MACHTL-386 Machine Trades Math 3 ‡	1
CNC-302 Computer Application/CNC	1
CNC-324 CNC Machine Programming/Proveout 1 ‡	3
CNC-325 CNC Machine Programming/Proveout 2 ‡	3
CNC-326 Machining Center CAD/CAM Programming 1 ‡	3
CNC-327 Machining Center CAD/CAM Programming 2 ‡	3
MDRAFT-320 Coordinate Blueprint Reading ‡	1
CNC-320 Tooling and Fixturing	1
CNC-321 CNC Machine Technology	1
CNC-332 CNC Turning Programming/Proveout 1 ‡	3
CNC-333 CNC Turning Programming/Proveout 2 ‡	3
CNC-334 Turning Center CAD/CAM Programming 1 ‡	3
CNC-335 Turning Center CAD/CAM Programming 2 ‡	3
MTLGY-321 Metallurgy 1	1

CREDITS

Total credits needed to complete this diploma

64

‡ Prerequisite required.

^ Counts toward earning the Machine Tool Operations technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the National Institute for Metalworking Skills, 10565 Fairfax Boulevard, Suite 10, Fairfax, VA 22030; 703-352-4971; <https://www.nims-skills.org/index.php/accreditation>.

Dental Technician

PROGRAM CODE: 31-507-1



Technical Diploma



COURSE	CREDITS
DLABT-102 Dental Anatomy ‡	5
DLABT-111 Introduction to Complete Dentures ‡	5
DLABT-113 Dental Technology Materials ‡	2
DLABT-114 Principles of Occlusion ‡	1
ENG-195 Written Communication ‡ (or) Any 200-level ENG course	3
DLABT-115 CAD/CAM in Dentistry ‡	2
DLABT-117 Dental Technician Professionalism ‡	1
DLABT-121 Introduction to Crown and Bridge ‡	5
DLABT-129 All Ceramic Techniques ‡	5

Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED
High school juniors and seniors are eligible to apply.

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

29

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

Gain the knowledge and skills needed to manufacture dental restorations, including metal and ceramic crowns and bridges, and complete dentures. The curriculum also includes dental terminology, dental anatomy, occlusion and computer-aided design (CAD) processes. Students will acquire skills through hands-on experience in MATC's well-equipped dental laboratory.

Career Outlook

An increasing demand for aesthetic dentistry, the aging population and an aging workforce contribute to employment opportunities.

Program Learning Outcomes

- Relate concepts of oral anatomy, morphology and occlusion to dental laboratory procedures.
- Perform laboratory techniques and procedures for dentures.
- Assume the role of the dental laboratory technician as a member of the dental healthcare team.
- Observe infection control and environmental safety procedures.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Diesel and Powertrain Servicing

PROGRAM CODE: 31-412-3



Technical Diploma



COURSE	CREDITS
DIESEL-301 Diesel Fuel Systems ‡	2
DIESEL-306 Engine Construction and Installation ‡	5
DIESEL-307 Electrical/Electronics Shop ‡	5
DIESEL-308 CNG Engine Operations for Heavy-Duty Applications ‡ ...	1
DIESEL-338 Emission Control Systems ‡	2
DIESEL-319 Driveline Components ‡	5
DIESEL-333 Heavy Truck HVAC Systems ‡	2
DIESEL-341 Front-End, Brake and Suspension Systems ‡	5
DIESEL-345 Preventative Maintenance ‡	2
ENG-340 Workplace Communication	2
(or) ENG-195 Written Communication ‡	
WELD-305 Fundamentals of Oxyfuel Welding	1

Location: Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED recommended

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares you for servicing equipment powered by diesel or natural gas fueled engines, such as construction equipment and marine applications, with emphasis on the heavy truck field.

Career Outlook

There is steady demand for truck and heavy equipment mechanics in the transportation and construction equipment industries.

Program Learning Outcomes

- Demonstrate preventive maintenance skills relative to checking, lubricating and making necessary adjustments and minor repairs.
- Apply skills in specialized test equipment and machine tools.
- Demonstrate accuracy in identifying component parts and assemblies.
- Apply skills in troubleshooting and repairing engines, drive components and electrical components.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

CREDITS

Total credits needed to complete this diploma

32

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is accredited by the ASE Education Foundation, 1503 Edwards Ferry Road NE, Suite 401, Leesburg, VA 20176; 703-669-6650; aseeducationfoundation.org.

Electrical Power Distribution/Line Mechanic

PROGRAM CODE: 31-413-2



Technical Diploma



COURSE	CREDITS
ELECTY-318 Electrical Power Distribution 1A ‡.....	5
ELECTY-319 Electrical Power Distribution 1B ‡.....	4
ELECTY-320 Electrical Principles and Applied Math 1 ‡.....	4
ELECTY-321 Line Mechanic Rescue and Safety ‡.....	2
ELECTY-322 Electrical Power Distribution 2A ‡.....	5
ELECTY-323 Electrical Power Distribution 2B ‡.....	4
ELECTY-324 Electrical Principles and Applied Math 2 ‡.....	4
ENG-340 Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	

CREDITS

Total credits needed to complete this diploma

30

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

We Energies Metro North is located at 3100 West North Avenue, Milwaukee, WI 53208

Location: Mequon Campus, We Energies Metro North

Start Dates: August

Admission Requirement: High school diploma or GED, ability to drive and a valid driver's license

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares students for entry-level electrical line worker positions in industry. Although completion of this program does not substitute for an electrical apprenticeship, it does offer the basic knowledge needed to begin working for some electrical utilities, contractors and in related trades.

Career Outlook

Some graduates use the program's training as a step toward apprenticeship. Other positions available to graduates include electrical line worker and electrician cable installer.

Program Learning Outcomes

- Apply electrical theory.
- Construct overhead electrical distribution systems.
- Disassemble overhead electrical distribution systems.
- Construct underground electrical distribution systems.
- Disassemble underground electrical distribution systems.
- Construct overhead electrical transmission system.
- Disassemble overhead electrical transmission system.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Electricity

PROGRAM CODE: 31-413-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, ability to drive and a valid driver's license

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn skills needed for entry-level electrician positions in industry and the building trades. This program does not substitute for an electrical apprenticeship, but it does offer the basic knowledge needed to begin working for some electrical contractors.

Career Outlook

Some graduates use the training as a step toward an electrician apprenticeship.

Program Learning Outcomes

- Apply electrical theory.
- Install electrical equipment in a residential setting.
- Install electrical equipment in a commercial setting.
- Analyze industrial equipment.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
ELECTY-308 Basic Skills for Electrical Wiring ‡	2
ELECTY-310 Cable Wiring ‡	2
ELECTY-312 Electrical Raceway Installation ‡	2
ELECTY-340 Electrical Code Fundamentals 1 ‡	2
ELECTY-378 Construction Blueprint Reading ‡	1
ELECTY-392 Principles of Electricity	5
(or) ELECTY-390 Principles of Electricity 1 and ELECTY-391 Principles of Electricity 2	
ELECTY-314 Electrical Service Installation ‡	1
ELECTY-328 Electric Motor Control Wiring ‡	2
ELECTY-341 Electrical Code Fundamentals 2 ‡	1
ELECTY-382 Electrical Equipment Circuit Analysis ‡	1
ELECTY-384 Electrical Design and Estimating ‡	1
ELECTY-386 Solid State Devices ‡	2
ELECTY-394 Electrical Apparatus ‡	4
ENG-340 Workplace Communication	2
(or) ENG-195 Written Communication ‡	

CREDITS

Total credits needed to complete this diploma

28

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Landscape Horticulture Technician

PROGRAM CODE: 31-001-5



Technical Diploma



COURSE		CREDITS
ENG-195	Written Communication ‡ (or) ENG-201 English 1 ‡	3
HORT-111	Introduction to Horticulture.....	3
HORT-114	Survey of Woody Ornamental Plants.....	3
HORT-116	Landscape Equipment.....	3
HORT-125	Landscape Maintenance Applications.....	3
HORT-112	Horticulture Soils.....	3
HORT-115	Plant Pests and Controls	3
HORT-122	Landscape Design I.....	3
HORT-126	Landscape Estimating and Bidding.....	3
HORT-127	Arboriculture 1: Tree Care Fundamentals.....	3

CREDITS
Total credits needed to complete this diploma

30

‡ Prerequisite required.
Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Mequon Campus
Start Dates: August and January
Admission Requirement: High school diploma or GED
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Land an entry-level position that meets your desire to work outdoors. This program prepares students for positions such as groundskeepers, greenhouse workers and landscape construction workers.

Career Outlook

Locally, the job growth for entry-level landscaping positions indicates a high demand for skilled workers.

Program Learning Outcomes

- Utilize growing media.
- Examine plant health.
- Communicate as a horticulture professional.
- Provide horticulture maintenance.
- Apply the principles of plant science.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Landscape Horticulture

PROGRAM CODE: 10-001-4



Associate Degree



Location: Mequon Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

For opportunities that require outdoor work, creativity and plant knowledge, check out horticulture/landscape careers. This program includes coursework in landscape maintenance and arboriculture, and emphasizes hands-on learning.

Career Outlook

There is a steady demand for arborists, horticulturists, landscape designers and landscapers.

Program Learning Outcomes

- Analyze growing media.
- Diagnose plant health.
- Communicate as a horticulture professional.
- Apply design principles.
- Provide horticulture maintenance.
- Apply the principles of plant science.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
HORT-111	Introduction to Horticulture ^ 3
HORT-114	Survey of Woody Ornamental Plants ^ 3
HORT-116	Landscape Equipment ^ 3
HORT-125	Landscape Maintenance Applications ^ 3
HORT-112	Horticulture Soils ^ 3
HORT-115	Plant Pests and Controls ^ 3
HORT-122	Landscape Design I ^ 3
HORT-126	Landscape Estimating and Bidding ^ 3
HORT-127	Arboriculture 1: Tree Care Fundamentals ^ 3
ELECTIVES	(Three credits) 3
ENG-196	Oral/Interpersonal Communication ‡ 3 (or) Any 200-level ENG course except ENG-200 and ENG-201.....
HORT-119	Landscape Construction 3
HORT-123	Landscape Design II 3 (or) HORT-163 Native Plants - Fall
HORT-135	Herbaceous Plants 3
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI or HIST course
ELECTIVES	(Three credits) 3
GEOSCI-112	Principles of Sustainability 3 (or) Any 200-level BIOSCI, CHEM, GEOSCI, PHYS course
HORT-130	Pesticide Applicator Training 1
HORT-152	Greenhouse Production - Spring 3 (or) HORT-120 Sustainable Construction
HORT-153	Advanced Woody Plants 3
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Landscape Horticulture Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Machine Tool Operations

PROGRAM CODE: 31-420-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Note: Students will need a tablet or mobile device to complete course requirements.

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn in-demand skills for machine tool operations. Students gain hands-on experience in Computer Numerical Control (CNC) machine setup and operation.

Career Outlook

CNC machine tool operators with up-to-date experience are in demand.

Program Learning Outcomes

- Apply basic safety practices in the machine shop.
- Interpret industrial/engineering drawings.
- Apply precision measuring methods to part inspection.
- Perform basic machine tool equipment setup and operation.
- Perform programming, setup and operation of CNC Machine Tools.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
MACHTL-360 Metrology ^	1
MACHTL-367 Machine Tool Technology.....	1
MACHTL-384 Machine Trades Mathematics 1 ^	1
MDRAFT-385 Machine Blueprint Reading 1 ^	1
MACHTL-300 Engine Lathe 1 (Turning).....	3
MACHTL-301 Engine Lathe 2 (Turning) ‡.....	3
MACHTL-309 Manual Vertical Milling Machine 1 ^.....	3
MACHTL-310 Manual Vertical Milling Machine 2 ‡ ^.....	3
ENG-340 Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	
MACHTL-304 Introduction to CNC Programming ‡ ^.....	1
MACHTL-385 Machine Trades Mathematics 2 ‡ ^	1
MACHTL-391 Quality Control ‡.....	1
MDRAFT-386 Machine Blueprint Reading 2 ‡ ^	1
MACHTL-320 Introduction to CNC Turning Centers ‡.....	4
MACHTL-322 Introduction to CNC Vertical Machining Centers ‡ ^.....	4
MACHTL-325 Surface Grinding	4

CREDITS

Total credits needed to complete this diploma

34

‡ Prerequisite required.

^ Counts toward earning the CNC Setup and Operations certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Manufacturing Maintenance

PROGRAM CODE: 32-462-1



Technical Diploma



Location: Downtown Milwaukee Campus, Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Find your future in the manufacturing industry with a role in the fast-growing field of manufacturing maintenance. Through this program, you will gain hands-on, practical experience related to installing, maintaining, diagnosing and repairing equipment used in manufacturing industries, as well as develop the skills for maintaining manufacturing facilities/building systems.

Career Outlook

There is strong demand for maintenance workers at manufacturing sites.

Program Learning Outcomes

- Demonstrate safe work procedures.
- Install industrial equipment and systems.
- Maintain industrial equipment and systems.
- Troubleshoot industrial equipment and systems.
- Repair industrial equipment and systems.
- Communicate technical information.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
ADVMFG-113 Advanced Manufacturing DC/AC Circuits 1 ‡	3
ADVMFG-114 Advanced Manufacturing DC/AC Circuits 2 ‡	3
CONSTR-302 OSHA Safety/CPR for the Trades ‡	1
HVAC1-300 Basic Refrigeration/System Operation	4
HVAC1-325 Oil Furnace Service and Maintenance	3
MACHTL-360 Metrology	1
QLTYIN-103 MSSC Safety	1
QLTYIN-104 MSSC Quality	1
ADVMFG-102 Advanced Manufacturing Motor Controls ‡	3
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
HVAC1-301 Introduction to Refrigeration Service/Applications ‡	4
HVAC1-326 Gas Furnace Servicing and Maintenance ‡	3
MATH-113 College Technical Mathematics 1A ‡ (or) MATH-115 College Technical Mathematics 1 ‡	3
MDRAFT-385 Machine Blueprint Reading 1	1
QLTYIN-105 MSSC Process	1
QLTYIN-106 MSSC Maintenance	1
HYDPNU-330 Basic Hydraulics/Pneumatics	5
HYDPNU-338 Mechanical Systems	4
MFGMNT-352 Mechanical Drives 1	2
WELD-300 Fundamentals of Arc Welding	1
WELD-301 General Arc Welding ‡	2
HYDPNU-336 Fluid Power Circuits	4
MACHTL-346 Machine Shop for Related Trades	2
MFGMNT-332 Rigging and Lifting	2
MFGMNT-353 Mechanical Drives 2 ‡	2
MFGMNT-359 Mechanical Fabrication	2
WELD-305 Fundamentals of Oxyfuel Welding	1

CREDITS

Total credits needed to complete this diploma

63

‡ Prerequisite required.

Program curriculum requirements are subject to change.

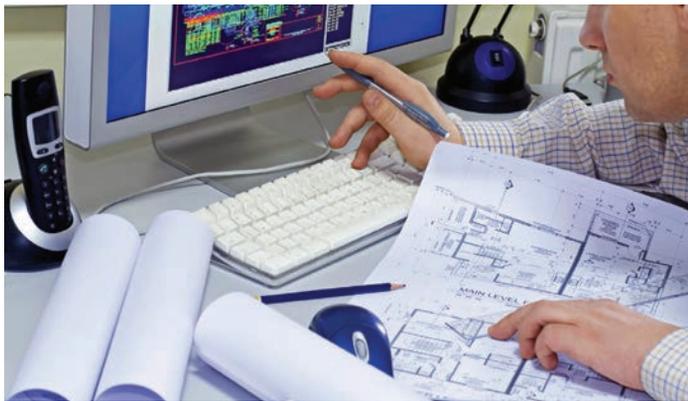
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Mechanical and Computer Drafting

PROGRAM CODE: 31-421-2



Technical Diploma



COURSE	CREDITS
CIVIL-102 Introduction to AutoCAD.....	2
CIVIL-105 Computer Applications.....	2
MCDESG-102 Technical Drafting 1 ‡.....	3
MCDESG-162 Engineering Materials.....	2
MATH-115 College Technical Mathematics 1 ‡.....	5
MCDESG-104 Technical Drafting 2 With CAD ‡.....	3
MCDESG-114 SolidWorks 1.....	2
MCDESG-106 Advanced Engineering Graphics ‡.....	3
MCDESG-124 SolidWorks 2 ‡.....	2
MCDESG-163 Machining Processes ‡.....	2

Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school-level algebra or equivalent

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

26

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

This program prepares you to be a detail drafter in the mechanical drafting field. For a new product to become reality, it must exist in the mind of the engineer, designer or drafter; then it is the detail drafter, working from design layouts, sketches and handbooks, who creates working drawings that aid in manufacturing the product.

Career Outlook

The employment outlook is favorable for mechanical drafters with current training in computer-aided design and drafting (CADD) systems.

Program Learning Outcomes

- Prepare detail and assembly drawings for documentation of mechanical components and products.
- Create CAD geometry, parts and assemblies.
- Design mechanical components and products.
- Select purchased parts.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Power Engineering and Boiler Operator

PROGRAM CODE: 30-428-1



Technical Diploma



COURSE	CREDITS
POWENG-330 Low Pressure Boilers ^	1
POWENG-331 High Pressure Boilers ^	2
POWENG-332 Boiler Operation ^	1
POWENG-334 Blueprint Reading for Power Engineering	1
POWENG-335 Instrumentation and Controls	3
POWENG-395 Electricity for Power Engineering	3
BAS-143 Electrical Concepts/Control 1 for ABS	2
ENG-340 Workplace Communication	2
(or) ENG-195 Written Communication ‡	
POWENG-333 Plant Maintenance and HVAC Basics	3
POWENG-336 Math for Power Engineers	1

CREDITS
Total credits needed to complete this diploma

19

‡ Prerequisite required.
^ Counts toward earning the Boiler Operator certificate.
Program curriculum requirements are subject to change.
All credits must be earned at MATC with 2.0 GPA or higher.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Oak Creek Campus
Start Dates: August and January
Admission Requirement: High school diploma or GED
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn how to manage and repair equipment, maintain facilities, and operate and control low-pressure and high-pressure boilers and auxiliary systems in factories, plants and buildings.

Career Outlook

Program graduates have potential for employment as building engineers, boiler operators, facilities maintenance mechanics and power engineers.

Program Learning Outcomes

- Follow industry safety standards.
- Operate power engineering equipment.
- Examine boiler operation effects on the environment.
- Perform water treatment tests.
- Operate building controls.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Preparatory Plumbing

PROGRAM CODE: 31-427-1



Technical Diploma



Location: MATC Education Center at Walker's Square

Start Dates: August

Admission Requirement: High school diploma or GED Shop practice and drafting learned either in school or employment setting. Ability to drive and possession of a valid driver's license.

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares students for a plumbing apprenticeship. As a graduate applying for an apprenticeship, you will be able to demonstrate your commitment to the trade and will possess entry-level skills for a plumbing apprenticeship. This program is also for individuals interested in other piping trades. Classes are at the MATC Education Center at Walker's Square, 816 West National Avenue, Milwaukee.

Career Outlook

There is a strong demand for the services of licensed plumbers.

Program Learning Outcomes

- Identify various piping materials and fittings.
- Utilize hand tools and power tools related to the trade.
- Follow directions related to the trade.
- Calculate various piping off set dimensions.
- Sketch and read simple plumbing systems drawings.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
CIVIL-308	Computer Applications for the Trades..... 1
MATH-308	Math for Industrial Applications 1 ‡..... 2
PLUMB-300	Plumbing Theory 1 3
PLUMB-301	Applied Drawing for Plumbers 1 2
PLUMB-302	Plumbing and Piping Shop 1 3
PLUMB-308	Plumbing and Pipe Joining Process 1 2
CONSTR-302	OSHA Safety/CPR for the Trades ‡ 1
ENG-340	Workplace Communication 2 (or) ENG-195 Written Communication ‡
MCDESG-120	Basic AutoCAD 1
PLUMB-304	Plumbing Theory 2 ‡ 3
PLUMB-305	Plumbing and Pipe Joining Process 2 ‡ 2
PLUMB-306	Plumbing and Piping Shop 2 ‡ 3
PLUMB-309	Applied Drawing for Plumbers 2 ‡ 2

CREDITS

Total credits needed to complete this diploma

27

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.



Refrigeration, Air Conditioning and Heating Service Technician

PROGRAM CODE: 31-401-1

Technical Diploma



COURSE	CREDITS
ELECTY-398 Electrical Circuits and Controls for HVAC/R	3
ENG-195 Written Communication ‡	3
HVAC1-300 Basic Refrigeration and System Operations	4
HVAC1-325 Oil Furnace Service and Maintenance	3
HVAC1-332 Math for HVAC Service Technicians	2
HVAC1-350 Air Conditioning Principles	2
ELECTY-396 HVAC/R Electrical Systems ‡	2
ELECTY-397 Electrical Wiring Methods for Air Conditioning and Refrigeration	1
HVAC1-301 Introduction to Refrigeration Servicing and Application ‡	4
HVAC1-326 Gas Furnace Servicing and Maintenance ‡	3
HVAC2-148 Heat Pumps ‡	3

CREDITS
Total credits needed to complete this diploma **30**

‡ Prerequisite required.
Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.
This program is accredited by HVAC Excellence
P.O. Box 521, Mt. Prospect, IL 60056
800-726-9696; <https://www.escogroup.org/accreditation/default.aspx>.

Location: Oak Creek Campus
Start Dates: August and January
Admission Requirement: High school diploma or GED recommended
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description
Enter a career that emphasizes working with HVAC/R equipment. You will learn to service and install air conditioning, refrigeration and heating equipment.

Career Outlook
There is an ongoing need for technicians who have current training in the installing, troubleshooting and repair of HVAC/R unit.

- Program Learning Outcomes**
- Install HVAC/R components.
 - Service HVAC/R systems.
 - Troubleshoot HVAC/R systems.



Complete Program Details
QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Technical Studies: Apprentice

PROGRAM CODE: 10-499-5



Associate Degree



COURSE	CREDITS
INDVTS-102 Career Assessment and Portfolio Development	3
ELECTIVES (Three credits)	3
ECON-195 Economics	3
(or) Any 200-level ECON course	
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
ENG-196 Oral/Interpersonal Communication ‡	3
(or) Any 200-level ENG or SPEECH course	
MATH-107 College Mathematics ‡	3
(or) MATH-113 College Technical Mathematics 1A ‡	
(or) MATH-123 Math With Business Applications ‡	
(or) Any 200-level MATH course	
PSYCH-199 Psychology of Human Relations	3
(or) Any 200-level PSYCH course	
APPRENTICESHIP	39

CREDITS

Total credits needed to complete this degree

60

Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED
Minimum of 400 hours of related apprenticeship instruction in a Wisconsin Technical College System college or other accredited institution. Interview with program coordinator.

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

MATC's Technical Studies: Apprentice associate degree program is for students who have completed apprenticeships registered through the Wisconsin Bureau of Apprenticeship Standards. Advanced standing for this degree is based solely on your apprenticeship experience. Applicants must possess a Wisconsin Certificate of Apprenticeship. You also may be considered if you possess documentation of having served an apprenticeship recognized by the U.S. Department of Labor. With proper documentation, 39 selected credits will be awarded toward the associate degree.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

A minimum of 25% of total program requirements must be earned at MATC.

Official Wisconsin Technical College System program title: Technical Studies: Journey Worker

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

A Wisconsin journey-level certificate from an apprenticeship program that included a minimum of 400 hours of paid, related instruction in a Wisconsin technical college or other accredited institution.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Tool and Die Making

PROGRAM CODE: 32-439-1



Technical Diploma



Location: Downtown Milwaukee Campus (year one only), Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED recommended

Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description

This is a four-semester, full-time, day program; the first two semesters are common with the one-year Machine Tool Operations program. All courses within the first year are based on the National Institute for Metalworking Skills (NIMS) Machining Level One Skill Standards in nine separate skill areas. During the third and fourth semesters, you will learn how to build and sample basic stamping dies and plastic injection molds.

Career Outlook

There is an ongoing need for highly skilled tool and die makers and mold makers.

Program Learning Outcomes

- Apply advanced safety practices in the machine shop.
- Interpret advanced industrial/engineering drawings.
- Apply precision measuring methods to part inspection.
- Perform advanced machine tool equipment setup and operation.
- Perform advanced programming, setup and operation of CNC Machine Tools.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
MACHTL-300 Engine Lathe 1 (Turning).....	3
MACHTL-301 Engine Lathe 2 (Turning) ‡.....	3
MACHTL-309 Manual Vertical Milling Machining 1 ^.....	3
MACHTL-310 Manual Vertical Milling Machining 2 ‡ ^.....	3
MACHTL-360 Metrology ^	1
MACHTL-367 Machine Tool Technology.....	1
MACHTL-384 Machine Trades Mathematics 1 ^	1
MDRAFT-385 Machine Blueprint Reading 1 ^	1
ENG-340 Workplace Communication.....	2
(or) ENG-195 Written Communication ‡	
MACHTL-304 Introduction to CNC Programming ‡ ^.....	1
MACHTL-320 Introduction to CNC Turning Centers ‡.....	4
MACHTL-322 Introduction to CNC Vertical Machining Centers ‡ ^.....	4
MACHTL-325 Surface Grinding	4
MACHTL-385 Machine Trades Mathematics 2 ‡ ^	1
MACHTL-391 Quality Control ‡.....	1
MDRAFT-386 Machine Blueprint Reading 2 ‡ ^	1
MACHTL-386 Machine Trades Mathematics 3 ‡.....	1
MTLGY-301 Basic Heat Treatment of Metals.....	1
TDMKG-360 Basic Die Making Technology.....	1
TDMKG-366 CNC Programming 2 ‡.....	1
TDMKG-371 Stamping Die Making 1 ‡.....	4
TDMKG-372 Stamping Die Making 2 ‡.....	4
TDMKG-373 Stamping Die Making 3 ‡.....	4
MACHTL-387 Machine Trades Mathematics 4 ‡.....	1
TDMKG-361 Advanced Die Making Technology ‡	1
TDMKG-362 Cavity Die Technology	1
TDMKG-367 Basic CAD/CAM ‡.....	1
TDMKG-381 Moldmaking 1 ‡.....	4
TDMKG-382 Moldmaking 2 ‡.....	4
TDMKG-383 Moldmaking 3 ‡.....	4

CREDITS

Total credits needed to complete this diploma

66

‡ Prerequisite required.

^ Counts toward earning the CNC Setup and Operations certificate.

Program curriculum requirements are subject to change.

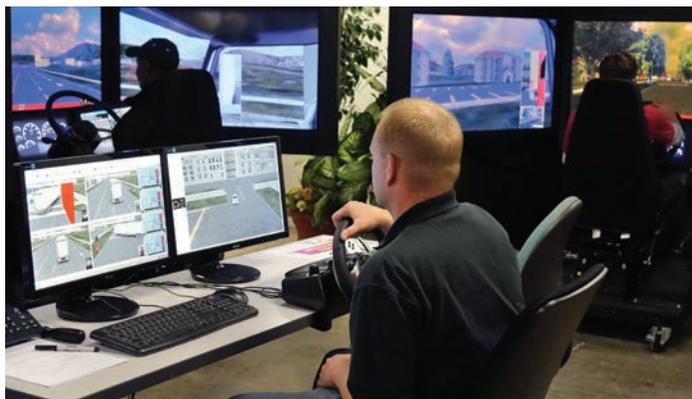
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Truck Driving

PROGRAM CODE: 30-458-1



Technical Diploma



COURSE	CREDITS
TRCKDR-345 Truck Driving 1 ‡	5
TRCKDR-346 Truck Driving 2 ‡	5

CREDITS

Total credits needed to complete this diploma

10

‡ Prerequisite required.

Must be admitted to the Truck Driving (30-458-1) program.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Oak Creek Campus

Start Dates: August, October, January, March, May and June

Admission Requirement: High school diploma or GED is preferred, age 18 years or older, valid Wisconsin driver's license and acceptable driving record, Department of Transportation medical exam and drug test, and valid Commercial Learners Permit (CLP). For more information, see Wisconsin Commercial Driver's Manual at wisconsindot.gov or at local DMV office.

Program Description

As a graduate of this eight-week Truck Driving program, you will enter an industry in need of qualified workers. Developing skills related to safety, maintenance and the operation of trucks prepares you for entry-level positions as a local or over-the-road driver. Students have the opportunity to attain Class A CDL (Commercial Driver's License) as a result of their training.

Career Outlook

Currently the need for qualified truck drivers remains high in Wisconsin. The demand for truck drivers is expected to continually increase due to the retirement of current drivers and the increased need for freight-carrying services.

Program Learning Outcomes

- Perform basic truck driving operations.
- Adhere to safe truck driving operating procedures.
- Explain advanced operating practices.
- Explain vehicle systems and reporting malfunctions.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Welding Fundamentals

PROGRAM CODE: 61-442-7



Certificate



COURSE	CREDITS
ENG-340 Workplace Communication	2
(or) ENG-195 Written Communication ‡	
WELD-313 Shielded Metal Arc Welding	5
WELD-314 Gas Tungsten Arc Welding	5
WELD-350 GTAW Processes	1
WELD-351 Shielded Metal Arc Welding Processes	1
WELD-360 Blueprint Reading for Welders	2
WELD-380 Welding Trades Mathematics	1

CREDITS

Total credits needed to complete this certificate

17

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Program Description

Develop entry-level welding skills in shielded metal arc welding and gas tungsten arc welding. You also will gain fundamental blueprint reading skills and strengthen workplace communication skills.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

Welding Technology

PROGRAM CODE: 10-621-1



Associate Degree



Location: West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Bilingual (Spanish) mode also is offered.

Program Description

This program combines practical, theoretical and technical training in welding fabrication. Advanced courses deal with application of welding codes to develop the expertise needed to become a Certified Associate Welding Inspector or Certified Welding Inspector.

Career Outlook

Demand is high for welders with current skills. Graduates typically find employment as welding technicians, robotic welding technicians, technical sales reps and weld test conductors.

Program Learning Outcomes

- Demonstrate industry-recognized safety practices.
- Interpret welding drawings.
- Produce welds to current AWS specifications.
- Manufacture products to specifications.
- Inspect products.
- Operate robotic welding equipment.



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡ 3 (or) ENG-201 English 1 ‡	3
MATH-115 College Technical Mathematics 1 ‡ 5 (or) MATH-113 College Technical Mathematics 1A‡ and MATH-114 College Technical Mathematics 1B ‡	5
WELDTC-101 Welding Theory 1 2	2
WELDTC-107 Fabrication Graphics 3	3
WELDTC-111 Welding Practice 1 4	4
WELDTC-181 Welding Technology Orientation 1	1
ENG-197 Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course	3
MATH-116 College Technical Mathematics 2 ‡ 4	4
WELDTC-102 Welding Theory 2 3	3
WELDTC-105 Weldability of Materials ‡ 3	3
WELDTC-112 Welding Practice 2 ‡ 4	4
MATRLS-102 Material Testing 3	3
SOCSCI-103 Think Critically and Creatively 3 (or) Any 200-level HIST or SOCSCI course	3
WELDTC-113 Welding Techniques 1 ‡ 3	3
WELDTC-140 Manufacturing Applications for Robots 4	4
MATRLS-151 Metallurgy and Materials Science 3	3
PSYCH-199 Psychology of Human Relations 3 (or) Any 200-level PSYCH course	3
WELDTC-114 Welding Techniques 2 ‡ 3	3
WELDTC-135 Automated Welding Processes ‡ 4	4

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:
Industrial Welding Technician.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Welding

PROGRAM CODE: 31-442-1



Technical Diploma



COURSE	CREDITS
WELD-313	Shielded Metal Arc Welding ^ 5
WELD-314	Gas Tungsten Arc Welding ^ 5
WELD-350	GTAW Processes ^ 1
WELD-351	Shielded Metal Arc Welding Processes ^ 1
WELD-360	Blueprint Reading for Welders ^ 2
WELD-380	Welding Trades Mathematics ^ 1
ENG-340	Workplace Communication ^ 2 (or) ENG-195 Written Communication ‡
WELD-315	Gas Metal Arc Welding Practices 5
WELD-316	Layout and Setup Practices 5
WELD-352	Gas-Shielded Arc Welding Processes 1
WELD-354	Layout and Print Reading Practices ‡ 2

CREDITS
Total credits needed to complete this diploma **30**

‡ Prerequisite required.
^ Counts toward earning the Welding Fundamentals certificate.
Program curriculum requirements are subject to change.
Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: Mequon Campus, Oak Creek Campus, West Allis Campus and the MATC Education Center at Walker’s Square
Start Dates: August and January
Admission Requirement: High school diploma or GED
Financial Aid Eligible: Yes.
Apply at fafsa.gov. Use School Code 003866.

Program Description
Gain the skills to perform production, maintenance and repair welding for manufacturing and construction. Learn about blueprints, equipment maintenance and the various welding processes and settings.

Career Outlook
Demand is high for welders with up-to-date skills; new processes have created many job opportunities for welders with these abilities.

- Program Learning Outcomes**
- Demonstrate industry-recognized safety practices.
 - Interpret welding drawings.
 - Produce gas metal arc welds (GMAW).
 - Produce shielded metal arc welds (SMAW).
 - Produce flux cored arc welds (FCAW).
 - Produce gas tungsten arc welds (GTAW).
 - Perform cutting operations.



Complete Program Details
QUESTIONS? 414-297-8901 or mctpathway@matc.edu

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

The certificates, technical diplomas and associate degrees in this Pathway will prepare you for a professional career in your chosen STEM (science, technology, engineering, mathematics) field. According to the U.S. Bureau of Labor Statistics, the projected growth rate for STEM fields through 2026 is 10.8%, with 93 of 100 STEM occupations earning wages above the national average. We welcome you to explore your passion in STEM, experiencing hands-on learning with industry-expert faculty. Our team is excited to guide you in preparing for a successful career!

Pathway Offices

Downtown Milwaukee Campus, Main Building, Room M386, **414-297-6319**

Mequon Campus, Room A108

Oak Creek Campus, Room A121

West Allis Campus, Room 103

stempathway@matc.edu



Architectural Technology AD
Biomedical Electronics Technology AD
Chemical Technician AD
Civil Engineering Technology AD
Computer Electronics Technology AD
Electronic Engineering Technology AD
Electronic Engineering Technology AD (BSEE Transfer)
Electronic Technology-Automation AD
Electronics Technician Fundamentals TD
Food Science Technology AD
IT Computer Support Specialist AD
IT Computer Support Technician TD
IT Digital Forensics Analyst TD
IT Help Desk Support Specialist TD
IT Information Systems Security Specialist AD

IT Mobile Applications Developer AD
IT Network Specialist (AI, Cloud and Virtualization) AD
IT Network Specialist (AI, Cloud and Virtualization)
– Online Accelerated Cohort AD
IT Networking and Infrastructure Administration TD
IT User Support Technician TD
IT Web and Software Developer AD
Level 2-SERVICE Center Technician Cert
Mechanical Design Technology AD
Microsoft Enterprise Desktop Support Specialist C
Operational Excellence AD
Science Processing Technician TD
Service Center Technician C
Surveying and Mapping TD



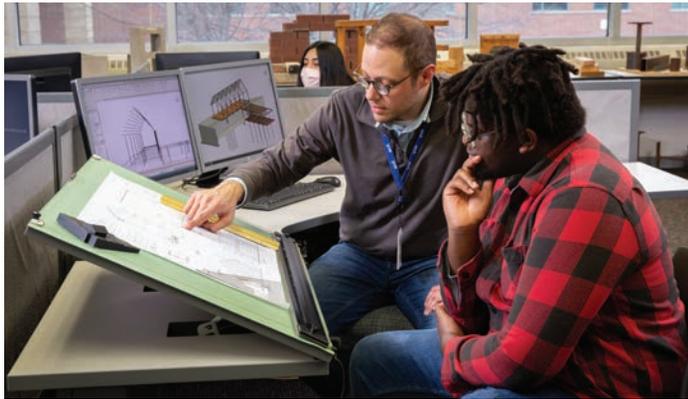
AD Associate Degree program
TD Technical Diploma program
C Certificate program

Architectural Technology

PROGRAM CODE: 10-614-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school-level algebra and geometry

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares students for work in fields related to architecture and construction. Students are introduced to architectural design and drafting through sketching techniques and then receive extensive training in computer-aided drafting and Building Information Modeling (BIM) using AutoCAD and Revit BIM software. Construction materials and methods, architectural practices, building codes, and mechanical and environmental systems also are studied.

Career Outlook

Architectural technicians are in demand. They work with architects, engineers, contractors, designers, and building material manufacturers and suppliers.

Program Learning Outcomes

- Develop construction documents.
- Evaluate building materials.
- Develop building designs.
- Integrate building systems.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
ARCHT-101	Architectural Theory and Drawing 1 4
ARCHT-105	Architectural History..... 2
ARCHT-110	Computer Applications for Architecture 2
ARCHT-121	Architectural Materials and Methods 1 2
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
MATH-115	College Technical Mathematics 1 ‡ 5 (or) MATH 201 College Algebra‡
ARCHT-112	Architectural Theory and CADD 2 ‡ 4
ARCHT-120	Structural Systems and Components ‡ 3
ARCHT-122	Architectural Materials and Methods 2 ‡ 3
ENG-196	Oral/Interpersonal Communication ‡ 3 (or) Any 200-level ENG or SPEECH course
MATH-116	College Technical Mathematics 2 ‡ 4 (or) MATH 202 Trigonometry ‡
ARCHT-103	Architectural Theory and CADD 3 ‡ 5
ARCHT-131	Mechanical and Environmental Systems 1 ‡ 2
ELECTIVES	(Two credits) 2
PHYS-139	Survey of Physics 3 (or) PHYS-221 College Physics 1 ‡
PSYCH-199	Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course
ARCHT-104	Architectural Theory and CADD 4 ‡ 5
ARCHT-107	Building Estimating..... 2
ARCHT-132	Mechanical and Environmental Systems 2 ‡ 2
ARCHT-141	Architectural Practices and Procedures ‡ 2
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level HIST or SOCSCI course

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Biomedical Electronics Technology

PROGRAM CODE: 10-605-6



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level algebra, criminal background check, 10-panel drug test, health exam, immunizations

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Through coursework and lab work focused on electrical safety, medical gas safety and the clinical application of electronics and electromechanical devices, you will prepare for a technical career in the healthcare field.

Career Outlook

Jobs are competitive in the Milwaukee area. Employment opportunities include hospitals, equipment manufacturers and independent service organizations.

Program Learning Outcomes

- Manage medical equipment and systems.
- Identify the function and operation of various types of imaging equipment.
- Problem-solve electronic circuits and systems.
- Demonstrate a competency with computers and networks used in medical equipment.
- Apply principles of anatomy, physiology and medical terminology.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
QETECH-200 Fundamentals of Engineering	3
ELCTEC-110 DC/AC Electronics 1 ‡ ^.....	4
ELCTEC-130 Digital Electronics ‡ ^.....	3
ENG-195 Written Communication ‡..... (or) ENG-201 English 1 ‡	3
MATH-115 College Technical Mathematics 1 ‡ ^.....	5
BIOSCI-189 Basic Anatomy	3
ELCTEC-111 DC/AC Electronics 2 ‡ ^.....	3
ELCTEC-120 Electronic Devices ‡ ^..... (or) ELCTEC-118 Electronic Devices Interactive	4
ELCTEC-186 Fabrication Techniques ‡.....	1
ENG-197 Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
MATH-116 College Technical Mathematics 2 ‡	4
ELCTEC-134 Biomedical Instrumentation ‡.....	4
ELCTEC-137 Biomedical Electronics Technician Practicum 1 ‡.....	2
ELCTEC-140 Microprocessors ‡ ^.....	3
ELCTEC-150 Data Communications and Networking ‡.....	3
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level HIST or SOCSCI course	
ELCTEC-133 Medical Imaging Equipment ‡.....	4
ELCTEC-138 Biomedical Electronics Technician Practicum 2 ‡.....	2
ELCTEC-139 Advanced Biomedical Electronics ‡.....	3
ELECTIVE (One credit)	1
PSYCH-199 Psychology of Human Relations.....	3
(or) Any 200-level PSYCH course	

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Program curriculum requirements are subject to change.

Official Wisconsin Technical College System program title:
Bio-Medical Electronics.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Chemical Technician

PROGRAM CODE: 10-603-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED, one year of high school-level chemistry, and advanced algebra or one semester of MATH-116 College Technical Mathematics 2

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Chemical technicians assure the quality of the products made in the manufacturing, chemical and allied industries. This program trains you to perform as an analyst or chemist's assistant in various industries.

Career Outlook

Employment prospects for program graduates are strong, locally and nationally. Most graduates work in labs, in research and development, or in technical assistance.

Program Learning Outcomes

- Apply knowledge of chemical apparatus, equipment and procedures.
- Work precisely in solution making.
- Communicate and receive precise chemical data and procedures.
- Practice laboratory safety procedures.
- Use software for instrument operation and data handling.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
CHEMT-101	Chemical Laboratory/Process Safety ‡ ^ 2
CHEMT-103	Introduction to Chemical Technology ^ 2
CHEMT-111	General Chemistry 1 ‡ ^ 5 (or) CHEM-211 Chemistry 1 ‡
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
CHEMT-105	Introduction to Instrumental Methods ^ 3
CHEMT-112	General Chemistry 2 ‡ ^ 5 (or) CHEM-212 Chemistry 2 ‡
ENG-197	Technical Reporting ‡ ^ 3 (or) Any 200-level ENG or SPEECH course
PHYS-139	Survey of Physics 3
CHEMT-107	Industrial Methods of Analysis ‡ 2
CHEMT-116	Instrumental Analysis ‡ 5 (or) CHEM-216 Instrumental Analysis ‡
CHEMT-117	Organic Chemistry 1 ‡ 3 (or) CHEM-217 Organic Chemistry 1 ‡
CHEMT-119	Organic Chemistry Laboratory 1 ‡ 2 (or) CHEM-219 Organic Chemistry Laboratory 1 ‡
ELECTIVES	(Two credits) 2
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
CHEMT-109	Chemical Processes ‡ 3
CHEMT-115	Quantitative Analysis ‡ 5 (or) CHEM-215 Quantitative Chemical Analysis ‡
CHEMT-118	Organic Chemistry 2 ‡ 3 (or) CHEM-218 Organic Chemistry 2 ‡
ELECTIVES	(Three credits) 3
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI or HIST course

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Science Processing Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Civil Engineering Technology

PROGRAM CODE: 10-607-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Assist civil engineers in planning, designing, scheduling, estimating, surveying and inspecting construction projects. Also, specific elective surveying courses provide an option for a land surveying career.

Career Outlook

Civil engineering technicians and surveying technicians are needed in all phases of project development.

Program Learning Outcomes

- Utilize CAD and sketching techniques to produce engineering documents.
- Perform design and routine testing procedures related to construction materials.
- Utilize land surveying instruments to collect data necessary to produce topographic maps, establish horizontal and vertical control, and layout civil engineering projects.
- Operate computer software and hardware to solve technical problems.
- Apply elements of design to roads, subdivision layout, and storm and sanitary sewer systems.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
CIVIL-101 Civil Engineering Drawing ^	2
CIVIL-102 Introduction to AutoCAD ^	2
CIVIL-105 Computer Applications ^	2
CIVIL-135 Public Works Engineering and Estimating	3
CIVIL-155 Surveying 1 ^	2
MATH-115 College Technical Mathematics 1 ‡ ^	5
(or) MATH-201 College Algebra ‡	
CIVIL-106 Intermediate AutoCAD ‡ ^	2
CIVIL-147 Soils and Materials Testing ‡	3
CIVIL-156 Surveying 2 ‡ ^	2
ENG-195 Written Communication ‡ ^	3
(or) ENG-201 English 1 ‡	
MATH-116 College Technical Mathematics 2 ‡	4
(or) MATH-202 Trigonometry 1 ‡	
CIVIL-110 Introduction to Civil 3D ^	2
CIVIL-141 Statics and Strength of Materials ‡	4
CIVIL-157 Route and Highway Surveying ‡ ^	3
ELECTIVES (Three credits)	3
ENG-197 Technical Reporting ‡	3
(or) Any 200-level ENG or SPEECH course	
PSYCH-199 Psychology of Human Relations	3
(or) Any 200-level PSYCH course	
CIVIL-142 Structures ‡	3
CIVIL-148 Structural Detailing ‡	3
CIVIL-158 Land Surveying ‡	2
CIVIL-170 Sewer and Water Systems ‡	3
ELECTIVES (Two credits)	2
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level SOCSCI or HIST course	

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Surveying and Mapping technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is approved through the Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors; Department of Safety and Professional Services, P.O. Box 8366, Madison, WI 53708-8366; 608-266-2112; <https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>.

Computer Electronics Technology

PROGRAM CODE: 10-605-3



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Learn to develop, install, maintain, troubleshoot and repair computers and processors in manufacturing and control systems. Work with edge computers, smart sensors, and networking hardware and software. This program is manufacturing- and hardware-focused compared to IT-related programs.

Career Outlook

Outlook is strong for computer electronics technicians with skills to perform installation, configuration, upgrading and maintenance of computer and network systems, and who can develop technical software.

Program Learning Outcomes

- Apply electronic theory to practice.
- Operate test equipment.
- Build electronic circuits and systems.
- Evaluate the operation of electronic circuits or systems.
- Communicate technical information.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
QETECH-200 Fundamentals of Engineering	3
ELCTEC-110 DC/AC Electronics 1 ‡ ^.....	4
ELCTEC-130 Digital Electronics ‡ ^.....	3
ENG-195 Written Communication ‡..... (or) ENG-201 English 1 ‡	3
MATH-115 College Technical Mathematics 1 ‡ ^..... (or) Any 200-level MATH course	5
ELCTEC-111 DC/AC Electronics 2 ‡ ^.....	3
ELCTEC-120 Electronic Devices ‡ ^.....	4
ELCTEC-140 Microprocessors ‡ ^.....	3
ELCTEC-186 Fabrication Techniques ‡.....	1
ENG-197 Technical Reporting ‡..... (or) Any 200-level ENG or SPEECH course	3
MATH-116 College Technical Mathematics 2 ‡.....	4
ELCTEC-150 Data Communications and Networking ‡.....	3
ELCTEC-173 Computing With C ‡.....	3
ELCTEC-174 Hardware Systems ‡.....	3
ELCTEC-178 Software Systems ‡.....	3
ELCTEC-172 Input/Output Programming ‡.....	3
ELCTEC-176 Computer Networks ‡.....	3
ELCTEC-179 Advanced Computer Systems ‡.....	3
ELECTIVE (One credit).....	1
PSYCH-199 Psychology of Human Relations..... (or) PSYCH-231 Introductory Psychology	3
SOCSCI-197 Contemporary American Society	3
(or) SOCSCI-203 Introduction to Sociology	

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

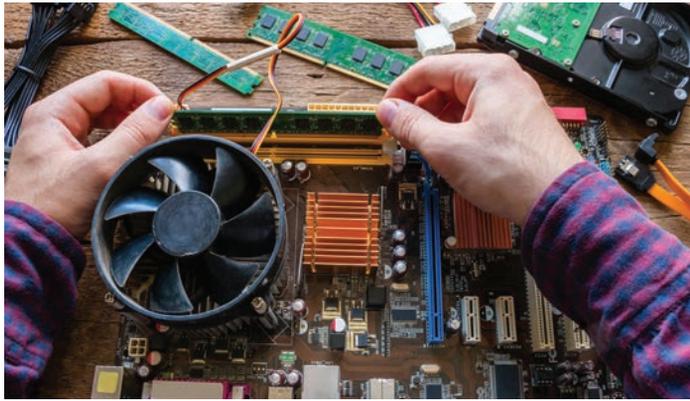
Official Wisconsin Technical College System program title:
Electronics – Computer.

Electronic Engineering Technology

PROGRAM CODE: 10-605-7



Associate Degree



Location: West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level geometry and one year of high school-level algebra, or equivalent.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Gain the expertise for professional testing/repair positions in the electronics field. If you are interested in continuing your education to pursue a Bachelor of Science Electrical Engineering degree at Milwaukee School of Engineering (MSOE), select the MSOE-BSEE Transfer courses.

Career Outlook

Technicians assist engineers and producers of electronic equipment and systems and are part of a fast-growing career area.

Program Learning Outcomes

Apply electronic theory to practice, operate test equipment and build electronic circuits and systems.

‡ Prerequisite required. Program curriculum requirements are subject to change.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Official WTCS program title: Electronic Systems Technician.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
JOB READY	
QETECH-200 Fundamentals of Engineering.....	3
ELCTEC-110 DC/AC Electronics 1 ‡ ^	4
ELCTEC-130 Digital Electronics ‡ ^	3
ENG-195 Written Communication ‡ (or) ENG-201 ‡	3
MATH-115 College Technical Mathematics 1 ‡ ^	5
(or) MATH-230 ‡ (or) MATH-231 ‡	
PSYCH-199 Psychology of Human Relations (or) PSYCH-231	3
ELCTEC-111 DC/AC Electronics 2 ‡ ^	3
ELCTEC-120 Electronic Devices ‡ ^	4
ELCTEC-140 Microprocessors ‡ ^	3
MATH-116 College Technical Mathematics 2 ‡	4
(or) MATH-231 ‡ (or) MATH-232 ‡	
ELCTEC-121 Electronic Devices Advanced ‡	3
ELCTEC-150 Data Communications and Networking ‡	3
ELCTEC-196 PLC Systems Basic ‡	3
ENG-197 Technical Reporting ‡	3
(or) Any 200-level ENG or SPEECH course	
ELCTEC-131 Advanced Digital Electronics ‡ (or) ELCTEC-198 ‡	3
ELCTEC-141 Microcontrollers ‡	3
ELCTEC-176 Computer Networks ‡	3
ELCTEC-195 Motors and Controls ‡	4
ELECTIVE (One credit)	1
SOCSCI-197 Contemporary American Society (or) SOCSCI-203	3

CREDITS

Total credits needed to complete this degree

64

MSOE-BSEE TRANSFER*

QETECH-200 Fundamentals of Engineering.....	3
ELCTEC-110 DC/AC Electronics 1 ‡ ^	4
ELCTEC-130 Digital Electronics ‡ ^	3
ENG-201 English 1 ‡	3
PSYCH-231 Introductory Psychology.....	3
ELCTEC-111 DC/AC Electronics 2 ‡ ^ (or) ELCTEC-116 ‡	3
ELCTEC-120 Electronic Devices ‡ ^ (or) ELCTEC-118 ‡	4
ELCTEC-140 Microprocessors ‡ ^ (or) ELCTEC-119 ‡	3
SOCSCI-203 Introduction to Sociology	3
PHYS-274 Calculus-Based Physics 1 ‡	4
ELCTEC-105 DC/AC 3 Advanced Circuits ‡	3
ELCTEC-121 Electronic Devices Advanced ‡	3
ELCTEC-195 Motors and Controls ‡	4
ELCTEC-196 PLC Systems Basic ‡	3
ENG-208 Technical Communications ‡	3
MATH-231 Analytic Geometry and Calculus 1 ‡	5
ELCTEC-106 Advanced Electronics Analysis ‡	3
ELCTEC-141 Microcontrollers ‡	3
ELCTEC-150 Data Communications and Networking ‡	3
ELECTIVES (Five credits)	5
MATH-232 Analytic Geometry and Calculus 2 ‡	5

CREDITS

Total credits for MSOE-BSEE transfer program

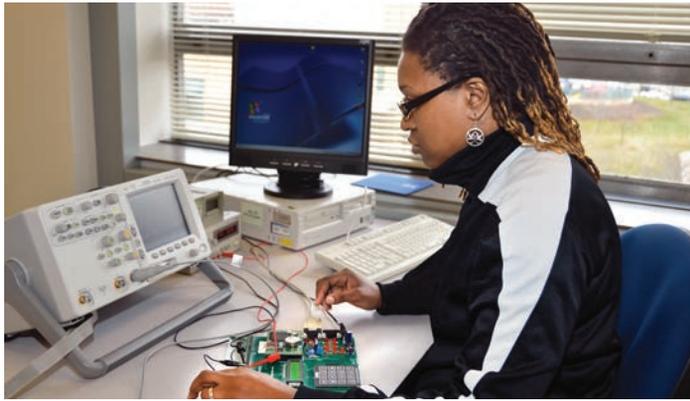
*73

Electronic Technology – Automation

PROGRAM CODE: 10-605-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level geometry and one year of high school-level algebra, or equivalent

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program features industry-relevant hands-on labs and is designed to prepare students for a variety of occupations in the field of electronics.

Career Outlook

Electronic technology is a rapidly changing field, which creates great opportunities. Skills acquired from this program provide a strong foundation to keep pace with the technology.

Program Learning Outcomes

- Apply electronic theory to practice.
- Operate test equipment.
- Build electronic circuits and systems.
- Evaluate the operation of electronic circuits or systems.
- Communicate technical information.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
QETECH-200	Fundamentals of Engineering 3
ELCTEC-110	DC/AC Electronics 1 ‡ ^ 4
ELCTEC-130	Digital Electronics ‡ ^ 3
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
MATH-115	College Technical Mathematics 1 ‡ ^ 5
ELCTEC-111	DC/AC Electronics 2 ‡ ^ 3
ELCTEC-120	Electronic Devices ‡ ^ 4
ELCTEC-140	Microprocessors ‡ ^ 3
ELCTEC-186	Fabrication Techniques ‡ 1
MATH-116	College Technical Mathematics 2 ‡ 4
ELCTEC-150	Data Communications and Networking ‡ 3
ELCTEC-173	Computing With C ‡ 3
ELCTEC-195	Motor Controls ‡ 4
ELCTEC-196	PLC Systems Basic ‡ 3
ENG-197	Technical Reporting ‡ 3
ELCTEC-192	Fluid Power ‡ 2
ELCTEC-198	PLC Systems Advanced ‡ 3
ELCTEC-199	Automated Systems ‡ 3
ELECTIVE	(One credit)..... 1 Any 100-, 200- and/or 300-level courses in any subject. ELCTEC-100 and ELCTEC-101 are suggested
PSYCH-199	Psychology of Human Relations..... 3 (or) PSYCH-231 Introductory Psychology
SOCSCI-197	Contemporary American Society 3 (or) SOCSCI-203 Introduction to Sociology

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Electronics Technician Fundamentals technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

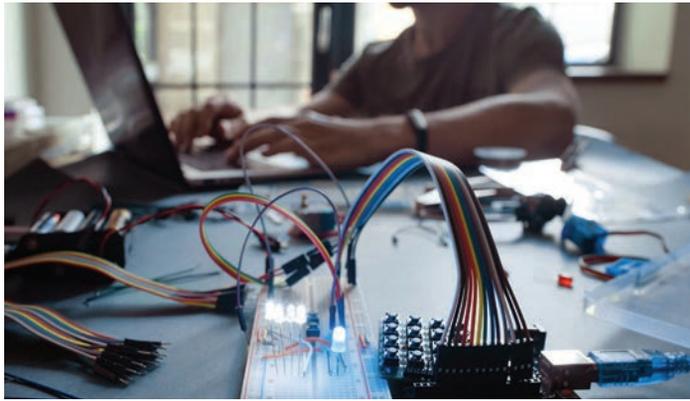
Official Wisconsin Technical College System program title: Electronics.

Electronics Technician Fundamentals

PROGRAM CODE: 30-605-1



Technical Diploma



COURSE		CREDITS
QETECH-200	Fundamentals of Engineering	3
ELCTEC-110	DC/AC Electronics 1 ‡	4
ELCTEC-130	Digital Electronics ‡	3
MATH-115	College Technical Mathematics 1 ‡	5
ELCTEC-111	DC/AC Electronics 2 ‡	3
ELCTEC-120	Electronic Devices ‡	4
ELCTEC-140	Microprocessors ‡	3

CREDITS

Total credits needed to complete this diploma

25

Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level geometry and one year of high school-level algebra, or equivalent

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Gain the core competencies of electronics, such as DC/AC principles, digital electronics and microprocessors, through coursework that emphasizes hands-on learning. These skills provide entry-level opportunities for employment or the base knowledge to pursue further education in electronics.

Career Outlook

Electronics is a rapidly changing field, with jobs in many sectors of industry.

Program Learning Outcomes

- Apply the practical and theoretical foundations of electronics technology to solve problems.
- Integrate and repair electronic circuits and systems.
- Apply critical thinking skills necessary to install and maintain electronic systems and equipment.
- Write technical reports and process documentation.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Food Science Technology

PROGRAM CODE: 10-623-4



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school-level chemistry and advanced algebra

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Applying principles of chemistry and biology to ensure that food products are safe and meet quality standards, this program emphasizes the skills required in the food and beverage manufacturing industry, including innovative ways to produce, package, preserve and distribute foods.

Career Outlook

Employers include manufacturers of foods, beverages and pharmaceuticals.

Program Learning Outcomes

- Perform quality tests.
- Demonstrate safety standards.
- Apply knowledge of production processes.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
CHEMT-101	Chemical Laboratory/Process Safety ‡ ^ 2
CHEMT-103	Introduction to Chemical Technology ^ 2
CHEMT-111	General Chemistry 1 ‡ ^ 5
ENG-195	Written Communication ‡ ^ 3 (or) ENG-201 English 1 ‡
BIOSCI-177	General Anatomy and Physiology ‡ 4 (or) BIOSCI-236 Principles of Biology ‡
CHEMT-105	Introduction to Instrumental Methods ^ 3
CHEMT-112	General Chemistry 2 ‡ ^ 5
ENG-197	Technical Reporting ‡ ^ 3 (or) Any 200-level ENG or SPEECH course
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI course
CHEM-186	Introductory Biochemistry ‡ 4
FSTEC-101	Food Quality Management 4
FSTEC-190	Food Science 3
MATH-115	College Technical Mathematics 1 ‡ 5 (or) Any 200-level MATH course
BIOSCI-197	Microbiology ‡ 4
ELECTIVES	(Two credits) 2
FSTEC-103	Manufacturing Processes and Lab Science 2
FSTEC-191	Food Science Nutrition 3 (or) BIOSCI-220 Introduction to Nutritional Science

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the Science Processing Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Computer Support Specialist

PROGRAM CODE: 10-154-3



Associate Degree



Location: Downtown Milwaukee Campus, Mequon Campus, Oak Creek Campus, West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

This program prepares you for industry-sought certifications, including CompTIA's A+, Network+, Security+ and Mobility+ Device Administrators (iOS, Android and Windows), Microsoft Certified Professional in Windows Desktop, Microsoft Enterprise Desktop Support Technician (MCITP), Apple OSX Certified Support Professional (ACSP), HDI-SCA, HDI-DST and ITIL Foundation.

Career Outlook

Computer support specialists are in high demand locally and throughout the United States. Typical job titles include junior help desk technician, junior support specialist, Apple support specialist, mobile device support specialist, desktop support specialist and IT field technician.

Program Learning Outcomes

- Manage information technology hardware.
- Manage software.
- Support computer networks.
- Provide end-user support.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ ^ † 3 (or) ENG-201 English 1 ‡
ITSUP-101	Computer Information Systems Fundamentals ^ † 3
ITSUP-109	Microsoft Office for IT Professionals ^ † 3
ITSUP-111	CompTIA A+ Software Support ^ † 3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) ^ * † 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
ITNET-101	Network Communications (Network+) ^ † 3
ITSUP-102	CompTIA A+ Essentials ^ † 3
ITSUP-177	Intro to IT Projects, Teamwork and Self-Management † 3
ITSUP-197	Business Data Analytics 3
ITSUP-150	Mobile Device Repair and Maintenance * † 3
ITSUP-152	MacOS Support Essentials * † 3
ITSUP-155	IT Career Skills ^ † 3
MATH-123	Math With Business Applications ‡ 3 (or) Any 200-level MATH course
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI or HIST course
ELECTIVES	(Three credits) 3
ITSEC-124	Network Security (Security+) ^ † 3
ITSUP-106	Linux Support 1
ITSUP-153	Mobile Device Administration * † 3
ITSUP-198	Computer Support Specialist Internship ‡ † 1
ITSUP-199	Integrated Project – Computer Support Specialist † 1
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the IT Computer Support Technician technical diploma.

† Counts toward earning the IT Help Desk Support Specialist technical diploma.

* Counts toward earning the IT User Support Technician technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Computer Support Technician

PROGRAM CODE: 31-154-6



Technical Diploma



COURSE		CREDITS
ENG-195	Written Communication ‡ (or) ENG-201 English 1 ‡	3
ITSUP-101	Computer Information Systems Fundamentals ^ *	3
ITSUP-109	Microsoft Office for IT Professionals * †	3
ITSUP-111	CompTIA A+ Software Support †	3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) ^ * †	3
ITNET-101	Network Communications (Network+)	3
ITSEC-124	Network Security (Security+)	3
ITSUP-102	CompTIA A+ Essentials ^	3
ITSUP-155	IT Career Skills	3

Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level algebra, knowledge of computer fundamentals

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Coursework in this program prepares you for industry-sought certifications, including CompTIA's A+, Network+, Security+, Microsoft Certified Professional in Windows Desktop, Microsoft Enterprise Desktop Support Technician (MCITP), HDI-SCA, HDI-DST, ITIL Foundation and more.

Career Outlook

Computer support technicians are in demand locally and nationally.

Program Learning Outcomes

- Provide entry-level end-user support.
- Manage operating systems and application software.
- Support information technology hardware.
- Provide basic network support for existing network installations.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

CREDITS

Total credits needed to complete this diploma

27

‡ Prerequisite required.

* Counts toward earning the Level 2 - Service Center Technician certificate.

† Counts toward earning the Microsoft Enterprise Desktop Support Specialist certificate.

^ Counts toward earning the Service Center Technician certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Digital Forensics Analyst

PROGRAM CODE: 31-150-1



Technical Diploma

**Location:** All Campuses**Start Dates:** August and January

Admission Requirement: High school diploma or GED and high school-level algebra. Student also needs to meet one of these requirements: Be currently working in the IT security field or related field (or) be currently enrolled in the IT Information Systems Security Specialist associate degree program (or) receive approval from the program chairperson

Financial Aid Eligible: Yes.Apply at falsa.gov. Use School Code 003866.

Program Description

Enter the growing field of digital and computer forensics investigation. The comprehensive coursework includes material from basic networking, basic security, network security, information systems auditing, risk management, and security policy and procedures. Several courses cover specialized areas of forensics, such as mobile forensics and internet forensics. You can work toward earning several industry certifications.

Career Outlook

Due to increases in cybercrimes, this is projected to be a high-demand occupation.

Program Learning Outcomes

- Analyze a cybercrime scene to choose appropriate best-practice procedures for retrieval, recovery and preservation of digital evidence.

**Complete Program Details****QUESTIONS?** 414-297-6319 or stempathway@matc.edu

COURSE

COURSE		CREDITS
ITNET-131	Introduction to Networks (Cisco 1).....	3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡.....	3
ITSEC-114	Information Security Principles.....	3
ITSEC-124	Network Security (Security+).....	3
ITNET-161	Linux Overview.....	2
ITSEC-126	Computer Forensics.....	3
ITSEC-151	IT – Auditing.....	3
ITSEC-152	Information Security Risk Management.....	3
ITSEC-156	Mobile Devices Forensics.....	3
ENG-195	Written Communication ‡..... (or) Any 200-level ENG course	3
ITSEC-166	Advanced Forensics.....	3
ITSEC-176	Malware Forensics.....	3
ITSEC-146	Security Measures and Intrusion Detection.....	3

CREDITS

Total credits needed to complete this diploma

38

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Help Desk Support Specialist

PROGRAM CODE: 31-154-7



Technical Diploma



Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for industry-sought certifications, including CompTIA's A+, Network+, Security+ and Mobility+ Device Administrators (iOS, Android and Windows), Microsoft Certified Professional in Windows Desktop, Microsoft Enterprise Desktop Support Technician (MCITP), Apple OSX Certified Support Professional (ACSP), HDI-SCA, HDI-DST and ITIL Foundation.

Career Outlook

Employment opportunities are expected to increase about 23% in Wisconsin and 19% nationally between 2014 and 2024.

Program Learning Outcomes

- Manage information technology hardware.
- Manage software.
- Support computer networks.
- Provide end-user support.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE

COURSE		CREDITS
ENG-195	Written Communication ‡ (or) ENG-201 English 1 ‡	3
ITSUP-101	Computer Information Systems Fundamentals ^ *	3
ITSUP-109	Microsoft Office for IT Professionals * †	3
ITSUP-111	CompTIA A+ Software Support †	3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) ^ * †	3
ITNET-101	Network Communications (Network+).....	3
ITSUP-102	CompTIA A+ Essentials ^	3
ITSUP-177	Intro to IT Projects, Teamwork and Self-Management	3
ITSUP-150	Mobile Device Repair and Maintenance	3
ITSUP-152	MacOS Support Essentials	3
ITSUP-155	IT Career Skills	3
ITSEC-124	Network Security (Security+)	3
ITSUP-153	Mobile Device Administration	3
ITSUP-198	Computer Support Specialist Internship ‡	1
ITSUP-199	Integrated Project – Computer Support Specialist	1

CREDITS

Total credits needed to complete this diploma

41

‡ Prerequisite required.

^ Counts toward earning the Service Center Technician certificate.

* Counts toward earning the Level 2 - Service Center Technician certificate.

† Counts toward earning the Microsoft Enterprise Desktop Support Specialist certificate.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Information Systems Security Specialist



Associate Degree

PROGRAM CODE: 10-151-3



Location: All Campuses

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level algebra or one semester of college-level algebra, and Microsoft Windows or Macintosh operating system skills

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Prepare for a career in computer network and internet security by learning to develop information security strategies, perform risk analyses, install security software, monitor network traffic and develop an emergency response plan. You will have hands-on coursework in securing MS Windows, Unix/Linux, Cisco, networks, servers and clients, and the enterprise network.

Career Outlook

Employment opportunities are growing due to the increased need for secure computer systems.

Program Learning Outcomes

- Identify security strategies.
- Implement secure infrastructures.
- Conduct security testing.
- Analyze security data.
- Mitigate risk.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
ITNET-110	Managing Windows Desktop (Client) Operating System 3
ITNET-131	Introduction to Networks (Cisco 1)..... 3
ITSEC-124	Network Security (Security+) 3
MATH-123	Math With Business Applications ‡..... 3 (or) Any 200-level MATH course
ENG-197	Technical Reporting ‡..... 3 (or) Any 200-level ENG or SPEECH course
ITNET-112	MS Server Administration 1 3
ITNET-132	Routing/Switching Essentials (Cisco 2)..... 3
ITNET-161	Linux Overview..... 2
ITSEC-152	Information Security Risk Management..... 3
ELECTIVES	(Three credits) 3
ITNET-111	MS Server Administration 2..... 3
ITSEC-136	Unix/Linux Administration and Security 3
ITSEC-145	Perimeter Security..... 3
ITSEC-148	Securing Wireless Devices and Networks..... 3
PSYCH-199	Psychology of Human Relations..... 3 (or) Any 200-level PSYCH course
ITSEC-122	Web/Application Security..... 3
ITSEC-126	Computer Forensics 3
ITSEC-146	Security Measures and Intrusion Detection 3
ITSEC-191	Information Systems Security Internship 2 ‡ 1 (or) ITSEC-194 Security Project Implementation
SOCSOCI-197	Contemporary American Society 3 (or) Any 200-level SOCSOCI or HIST course

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Mobile Applications Developer

PROGRAM CODE: 10-152-8



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Develop your skills in software development with an emphasis on creating mobile applications. You will learn essential programming skills while developing mobile applications for both iOS and Android platforms.

Career Outlook

There is a growing need for qualified mobile application developers. Graduates of this program also may find employment in programming or operations and systems analysis.

Program Learning Outcomes

- Gather mobile requirements.
- Design mobile applications.
- Integrate mobile data technologies.
- Build mobile applications.
- Develop technical documentation for mobile applications.
- Implement current platforms support.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
ITDEV-110	Introduction to Object-Oriented Programming ‡ 3
ITDEV-117	Logic and Problem-Solving 3
WEBDEV-114	Web Development With HTML/CSS 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
ITDEV-115	Intermediate Object-Oriented Programming ‡ 3
ITDEV-140	Programming With Java ‡ 3
ITDEV-150	Database Management With SQL 3
ITDEV-160	Web Programming With Scripts (JavaScript) 3
ITDEV-154	Data Structures and Programming ‡ 3
ITDEV-161	Web Programming 1 ‡ 3
ITDEV-181	Mobile Application Development ‡ 3
MATH-123	Math With Business Applications ‡ 3 (or) Any 200-level MATH course
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
ELECTIVES	(Three credits) 3
IT-107	Social Networking and Business Communications 3
ITDEV-177	Systems Analysis and Design ‡ 3
ITDEV-182	Hybrid Mobile App Development ‡ 3
ITDEV-184	iPhone and iOS Mobile App Development 3
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI or HIST course

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Network Specialist (AI, Cloud and Virtualization)

PROGRAM CODE: 10-150-2



Associate Degree



Location: Online Campus and West Allis Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra or one semester of college-level algebra. Requires interview with instructor; fill out form on program's webpage.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Through hands-on coursework, you will set up and troubleshoot computer and network operating systems along with working with emerging IT technologies such as AI, cloud and virtualization technology. Certification preparations in this degree include: VMware Certified Professional (VCP-DCV), Cisco Certified Networking Associate (CCNAv7), Microsoft Certifications, Amazon Web Services Cloud Practitioner (AWS-CP), Testout and CompTIA (A+, Network+ and Security+).

Career Outlook

Employment opportunities are strong. This associate degree program prepares you for entry-level positions with opportunities for advancement. The program also prepares you for many industry-sought certifications.

Program Learning Outcomes

- Implement computer networks.
- Implement client systems.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
IT-107	Social Networking and Business Communications 3
ITNET-101	Network Communications (CompTIA Network+) ^ 3
ITNET-110	Managing Windows Desktop (Client) Operating System ^ 3
ITNET-131	Introduction to Networks (Cisco 1) ^ 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
ITNET-112	MS Server Administration 1 ^ 3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡ ^ 3
ITSEC-124	Network Security (Security+) 3
ITSUP-102	CompTIA A+ Essentials 3
ITNET-111	MS Server Administration 2 ^ 3
ITNET-133	Scaling Networks (Cisco 3) ‡ ^ 3
ITNET-154	Scripting for Network Administrators ^ 3
ITNET-159	Cloud Infrastructure Services 3
MATH-123	Math With Business Applications ‡ ^ 3 (or) Any 200-level MATH course
ELECTIVES	(Three credits) 3
ITNET-157	Virtualization Technologies ^ 3
ITNET-198	Network Specialist Internship ‡ 1
ITNET-199	Integrated Project – Network Specialist 2
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level HIST or SOCSCI course

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the IT Networking and Infrastructure Administration technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Network Specialist (AI, Cloud and Virtualization) Online Accelerated Cohort



PROGRAM CODE: 10-150-2

Associate Degree



COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
IT-107	Social Networking and Business Communications 3
ITNET-101	Network Communications (CompTIA Network+) ^ 3
ITNET-110	Managing Windows Desktop (Client) Operating System ^ 3
ITNET-131	Introduction to Networks (Cisco 1) ^ 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
ITNET-112	MS Server Administration 1 ^ 3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡ ^ 3
ITSEC-124	Network Security (Security+) 3
ITSUP-102	CompTIA A+ Essentials 3
ITNET-111	MS Server Administration 2 ^ 3
ITNET-133	Scaling Networks (Cisco 3) ‡ ^ 3
ITNET-154	Scripting for Network Administrators ^ 3
ITNET-159	Cloud Infrastructure Services 3
MATH-123	Math With Business Applications ‡ ^ 3 (or) Any 200-level MATH course
ELECTIVES	(Three credits) 3
ITNET-157	Virtualization Technologies ^ 3
ITNET-198	Network Specialist Internship ‡ 1
ITNET-199	Integrated Project – Network Specialist 2
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level HIST or SOCSCI course

Location: Online Campus

Start Dates: January

Admission Requirement: High school diploma or GED and one year of high school-level algebra or one semester of college-level algebra. Requires interview with instructor; fill out form on program’s webpage.

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

The Accelerated Online program is an 18- to 20-month, cohort-based program where students take technical courses from the IT Network Specialist associate degree and IT Networking and Infrastructure Administration technical diploma. You work with the same set of students and instructors for the duration of the program, reducing redundancy and using the same learning tools throughout. This is an excellent environment for adult learners, career changers, displaced workers and students with existing degrees.

Career Outlook

Employment opportunities are strong. This associate degree program prepares you for entry-level positions with opportunities for advancement. The program also prepares you for many industry-sought certifications.

Program Learning Outcomes

- Implement computer networks.
- Implement client systems.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

^ Counts toward earning the IT Networking and Infrastructure Administration technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

IT Networking and Infrastructure Administration



Technical Diploma

PROGRAM CODE: 31-150-2



COURSE		CREDITS
ITNET-101	Network Communications (Network+).....	3
ITNET-110	Managing Windows Desktop (Client) Operating System	3
ITNET-131	Introduction to Networks (Cisco 1).....	3
ITNET-112	MS Server Administration 1	3
ITNET-132	Routing/Switching Essentials (Cisco 2) ‡.....	3
ITNET-157	Virtualization Technologies	3
MATH-123	Math With Business Applications ‡.....	3
ITNET-111	MS Server Administration 2.....	3
ITNET-133	Scaling Networks (Cisco 3) ‡.....	3
ITNET-154	Scripting for Network Administrators.....	3

Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra or one semester of college-level algebra

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

CREDITS

Total credits needed to complete this diploma

30

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Program Description

Through hands-on coursework, you will set up and troubleshoot computer and network operating systems and work with emerging IT technologies. Certification preparations in this program include VMware Certified Professional (VCP-DCV), Cisco Certified Networking Associate (CCNAv7), Microsoft Certifications, Testout and CompTIA (Network+).

Career Outlook

Opportunities are strong, including positions for network administrators, specialists and technicians.

Program Learning Outcomes

- Implement network security, firewalls, ACLs and VLANs.
- Install network/server hardware, software and operating systems.
- Support, monitor and maintain computers and computer networks.
- Utilize emerging technologies such as machine virtualization, wireless networking and cloud computing.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

IT User Support Technician

PROGRAM CODE: 30-154-6



Technical Diploma



COURSE	CREDITS
ITSUP-140 Support Center Analyst (HDI-SCA, HDI-DST, ITIL)	3
ITSUP-150 Mobile Device Repair and Maintenance	3
ITSUP-152 MacOS Support Essentials	3
ITSUP-153 Mobile Device Administration	3

CREDITS

Total credits needed to complete this diploma

12

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level algebra and knowledge of computer fundamentals

Program Description

Receive Apple support training, along with instruction in mobile device repair and administration, through this 12-credit program. The coursework prepares you for Apple ACSP, CompTIA's Mobility+ and HDI-SCA, HDI-DST and ITIL Foundation industry-standard certifications.

Career Outlook

Support technicians are in demand locally and nationally.

Program Learning Outcomes

- Support and maintain computer and mobile hardware.
- Support and maintain computer operating systems.
- Manage computer network connected devices.
- Demonstrate customer service skills as an IT professional.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

IT Web and Software Developer

PROGRAM CODE: 10-152-7



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Develop software applications that can be deployed using a variety of platforms. You will learn essential programming skills while developing software that utilizes client and server processing, connects to databases, and runs simultaneously on multiple devices.

Career Outlook

There is a growing need for qualified web and software developers. Program graduates also may pursue opportunities related to programming and database management.

Program Learning Outcomes

- Design web and software applications.
- Apply data persistence technologies.
- Develop software applications.
- Develop web applications.
- Develop documentation.
- Use infrastructures.
- Analyze new technologies.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
ENG-195	Written Communication ‡ 3 (or) ENG-201 English 1 ‡
ITDEV-110	Introduction to Object-Oriented Programming ‡ 3
ITDEV-117	Logic and Problem-Solving 3
WEBDEV-114	Web Development With HTML/CSS 3
ENG-197	Technical Reporting ‡ 3 (or) Any 200-level ENG or SPEECH course
ITDEV-115	Intermediate Object-Oriented Programming ‡ 3
ITDEV-140	Programming With Java ‡ 3
ITDEV-150	Database Management With SQL 3
ITDEV-160	Web Programming With Scripts (JavaScript) 3
MATH-123	Math With Business Applications ‡ 3 (or) Any 200-level MATH course
ITDEV-154	Data Structures and Programming ‡ 3
ITDEV-161	Web Programming 1 ‡ 3
ITDEV-162	Client/Server and eCommerce Implementation 3
PSYCH-199	Psychology of Human Relations 3 (or) Any 200-level PSYCH course
ELECTIVES	(Three credits) 3
IT-107	Social Networking and Business Communications 3
ITDEV-164	Web Programming 2 ‡ 3
ITDEV-177	Systems Analysis and Design ‡ 3
ITDEV-185	Advanced Object-Oriented Programming ‡ 3
SOCSCI-197	Contemporary American Society 3 (or) Any 200-level SOCSCI course

CREDITS

Total credits needed to complete this degree

60

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Level 2 – Service Center Technician

PROGRAM CODE: 61-154-3



Certificate



COURSE

ITSUP-101	Computer Information Systems Fundamentals	3
ITSUP-109	Microsoft Office for IT Professionals.....	3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL)	3

CREDITS

CREDITS

Total credits needed to complete this certificate

9

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED, one year of high school-level algebra

Program Description

This certificate provides preparation for CompTIA's Network+ and Security+ certifications, HDI's Support Center Analyst and Desktop Support Technician, as well as ITIL. Students acquire the skills necessary for level-two service center support.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

Mechanical Design Technology

PROGRAM CODE: 10-606-1



Associate Degree



Location: Downtown Milwaukee Campus

Start Dates: August

Admission Requirement: High school diploma or GED and one year of high school-level algebra or equivalent

Transfer: Will transfer to one or more four-year institutions

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Get involved in the engineering design process — design and analyze mechanical components and assemblies. Create 3D solid models and 2D detailed drawings for parts or assemblies of mechanical and electromechanical systems using the latest computer-aided design/drafting (CADD) systems.

Career Outlook

The employment outlook is favorable for mechanical drafters/designers having current training involving CADD systems.

Program Learning Outcomes

- Prepare detail and assembly drawings for documentation of mechanical components and products.
- Create CAD geometry, parts and assemblies.
- Design mechanical components and products.
- Analyze mechanical engineering problems.
- Select purchased parts.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
CIVIL-102 Introduction to AutoCAD ^	2
CIVIL-105 Computer Applications ^	2
MATH-115 College Technical Mathematics 1 ‡ ^	5
(or) MATH-201 College Algebra (4 credits) ‡	
MCDESG-102 Technical Drafting 1 ‡ ^	3
MCDESG-162 Engineering Materials ^	2
MATH-116 College Technical Mathematics 2 ‡	4
(or) MATH-202 Trigonometry (3 credits)	
MCDESG-104 Technical Drafting 2 With CAD ‡ ^	3
MCDESG-114 SolidWorks 1 ^	2
MCDESG-160 Statics ‡	3
SOCSCI-197 Contemporary American Society	3
(or) Any 200-level SOCSCI or HIST course	
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
MCDESG-106 Advanced Engineering Graphics ‡ ^	3
MCDESG-118 Kinematics ‡	3
MCDESG-124 SolidWorks 2 ‡ ^	2
MCDESG-130 Strength of Materials ‡	3
MCDESG-163 Machining Processes ‡ ^	2
ELECTIVES (Two credits)	2
ENG-196 Oral/Interpersonal Communication ‡	3
(or) Any 200-level ENG or SPEECH course	
MCDESG-112 Tool Design ‡	3
MCDESG-116 Design Elements ‡	3
MCDESG-125 Design Problems ‡	3
MCDESG-135 PTC Creo (Pro/E) 1	2
PSYCH-199 Psychology of Human Relations	3
(or) Any 200-level PSYCH course	

CREDITS

Total credits needed to complete this degree

64

‡ Prerequisite required.

^ Counts toward earning the Mechanical and Computer Drafting technical diploma.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Microsoft Enterprise Desktop Support Specialist

PROGRAM CODE: 61-154-2



Certificate



COURSE

ITSUP-109	Microsoft Office for IT Professionals.....	3
ITSUP-111	CompTIA A+ Software Support	3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL)	3

CREDITS

CREDITS

Total credits needed to complete this certificate

9

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Program Description

Skill sets gained will provide working knowledge to identify and resolve operating system, application and security issues; and to maintain and manage Windows 7 systems. Hands-on lab learning includes installations, deployments, configurations, maintenance and monitoring systems.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

Operational Excellence

PROGRAM CODE: 10-623-9 (formerly known as Quality Engineering Technology)



Associate Degree

**Location:** Downtown Milwaukee Campus, Oak Creek Campus**Start Dates:** August and January**Admission Requirement:** High school diploma or GED and one year of high school-level algebra**Transfer:** Will transfer to one or more four-year institutions**Financial Aid Eligible:** Yes.Apply at fafsa.gov. Use School Code 003866.

Program Description

Students prepare to become leaders who ensure that products and services meet performance standards and customer expectations in a wide range of industries. This program teaches problem-solving techniques to reduce waste, eliminate defects and reduce variation in any process.

Career Outlook

With the growing focus on operational excellence in all industries, well-trained, critical thinking leaders are in high demand.

Program Learning Outcomes

- Apply Lean and Six Sigma Methodologies.
- Apply statistical tools to drive process improvement and to characterize process performance and product and service quality.
- Apply the tools of continuous improvement, problem-solving, root cause analysis and corrective action.
- Demonstrate quality audit principles.
- Demonstrate measurement and inspection skills.

**Complete Program Details****QUESTIONS?** 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
ENG-195 Written Communication ‡ (or) ENG-201 English 1 ‡	3
MCDESG-114 SolidWorks 1 (or) MCDESG-133 Inventor 1 (or) MCDESG-135 PTC Creo (Pro/E) 1	2
QETECH-116 Engineering Economic Analysis	3
QETECH-138 Introduction to Quality Engineering ‡	3
SOCSCI-197 Contemporary American Society (or) Any 200-level HIST or SOCSCI course	3
BADM-104 Business Statistics ‡	3
ENG-196 Oral/Interpersonal Communication ‡ (or) Any 200-level ENG or SPEECH course	3
MATH-115 College Technical Mathematics 1 ‡ (or) MATH-201 College Algebra ‡	5
MATH-116 College Technical Mathematics 2 ‡ (or) MATH-202 Trigonometry ‡	4
MTRLS-105 Statistical Process Analysis.....	2
ECON-195 Economics..... (or) Any 200-level ECON course	3
ELECTIVES (ENTREP-101).....	3
QETECH-188 Project Management	3
PSYCH-199 Psychology of Human Relations..... (or) Any 200-level PSYCH course	3
QETECH-118 Lean Principles.....	3
QETECH-132 Lean Six Sigma Green Belt 1 ‡	3
LOGMGT-146 Operations Management	3
QETECH-134 Lean Six Sigma Green Belt 2 ‡	3
QETECH-142 Six Sigma Green Belt Project ‡	3
QETECH-144 Supplier Quality Assurance ‡.....	3

CREDITS

Total credits needed to complete this degree

61

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Science Processing Technician

PROGRAM CODE: 30-603-1

TD

Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and year of high school chemistry, or equivalent

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

Apply your interests in preparing chemical solutions and using chemical apparatus to the work performed in industrial operations. Through this program, you will gain skills required for working in industrial chemical processing and pilot plant operations.

Career Outlook

Employment prospects are strong, locally and nationally. Success in the workplace requires the ability to work independently and accurately, with a minimal level of supervision.

Program Learning Outcomes

- Apply knowledge of chemical apparatus, equipment and procedures in various production, research and control operations.
- Communicate and receive precise chemical data and procedures.
- Use software for process control and chemical inventory.
- Practice plant safety procedures.
- Utilize safety data sheets and global harmonization system.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
CHEMT-101	Chemical Laboratory/Process Safety ‡..... 2
CHEMT-103	Introduction to Chemical Technology..... 2
CHEMT-111	General Chemistry 1 ‡..... 5 (or) CHEM-211 Chemistry 1
ENG-195	Written Communication ‡..... 3
CHEMT-105	Introduction to Instrumental Methods..... 3
CHEMT-112	General Chemistry 2 ‡..... 5 (or) CHEM 212 Chemistry 2
ENG-197	Technical Reporting ‡..... 3

CREDITS

Total credits needed to complete this diploma

23

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Service Center Technician

PROGRAM CODE: 61-154-1



Certificate



COURSE

COURSE	CREDITS
ITSUP-101	Computer Information Systems Fundamentals 3
ITSUP-102	CompTIA A+ Essentials 3
ITSUP-140	Support Center Analyst (HDI-SCA, HDI-DST, ITIL) 3

CREDITS

Total credits needed to complete this certificate

9

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

Location: All Campuses, Online Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra

Program Description

Start your information technology career through this certificate program that can be completed in one semester. You will gain important skills and prepare for several key industry certification exams, including CompTIA A+, IT Technician, Help Desk Institute (HDI) Support Center Analyst, HDI-Desktop Support Technician and ITIL Foundation.

Some certificates can be earned while completing associate degrees and/or technical diplomas that are eligible for financial aid. Certificate programs alone are not eligible for financial aid; contact MATC for details. All credits in certificate programs must be earned at MATC with a 2.0 cumulative GPA or higher. Upon completion of the certificate's requirements, the student's transcript is notated with the credential earned.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

Surveying and Mapping

PROGRAM CODE: 30-607-1



Technical Diploma



Location: Downtown Milwaukee Campus

Start Dates: August and January

Admission Requirement: High school diploma or GED and one year of high school-level algebra (grade C or higher)

Financial Aid Eligible: Yes.

Apply at fafsa.gov. Use School Code 003866.

Program Description

As a surveying technician, graduates of this program typically work under the direction of an engineer or surveyor to operate surveying equipment, record measurements and produce drawings showing boundaries, key locations, elevations and other terrain features.

Career Outlook

Surveying and mapping technicians are needed in all phases of construction, and employer demand is good in the current job market.

Program Learning Outcomes

- Operate surveying instruments to collect data on location.
- Operate Trimble data collection systems, GPS receivers and robotic total stations.
- Draft and analyze traverse field data using Autodesk Civil 3D software.
- Illustrate basic drawings of circular horizontal curves, vertical curves, plans, profiles and cross-sections.



Complete Program Details

QUESTIONS? 414-297-6319 or stempathway@matc.edu

COURSE	CREDITS
CIVIL-101 Civil Engineering Drawing.....	2
CIVIL-102 Introduction to AutoCAD.....	2
CIVIL-105 Computer Applications	2
CIVIL-155 Surveying 1	2
MATH-115 College Technical Mathematics 1 ‡	5
(or) MATH-201 College Algebra ‡	
CIVIL-106 Intermediate AutoCAD ‡	2
CIVIL-156 Surveying 2 ‡	2
ENG-195 Written Communication ‡	3
(or) ENG-201 English 1 ‡	
CIVIL-110 Introduction to Civil 3D	2
CIVIL-157 Route and Highway Surveying ‡	3

CREDITS

Total credits needed to complete this diploma

25

‡ Prerequisite required.

Program curriculum requirements are subject to change.

Current MATC students should consult their Academic Program Plan for specific curriculum requirements.

This program is approved through the Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors; Department of Safety and Professional Services, P.O. Box 8366, Madison, WI 53708-8366; 608-266-2112; <https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>.

COURSE DESCRIPTIONS

ALPHABETICAL LIST OF SUBJECTS

Each MATC course is identified by a grouping of two to six letters and a set of three numbers. For example, in the course number **CARP-301**, the letters **CARP** form the alphabetic code that identifies the subject in which the course is taught – the subject is Carpentry for this example. Below you will find a list of the subjects and their alphabetic codes and department numbers. The listing of courses in this Course Descriptions section is by the subject’s alphabetic code shown in capital letters.

LIST OF SUBJECTS (FOLLOWED BY DEPARTMENT NUMBERS IN PARENTHESES)

Course description information subject to change. Online visit matc.edu, search “Course Catalog.”

ACCTG	Accounting (101)	DMS	Diagnostic Medical Sonography (526)	MATH	Mathematics (804)
ADVMFG	Advanced Manufacturing (664)	ECON	Economics (809)	MATRLS	Materials Technology (613)
ANIM	Animation (207)	EDF	Educational Foundations (522)	MCDESG	Mechanical Design Technology (606)
AESTHE	Aesthetics (502)	ELCTEC	Electronics Technology (605)	MDRAFT	Mechanical and Computer Drafting (421)
ANTECH	Anesthesia Technology (541)	ELECTY	Electricity (413)	MEDAST	Medical Assistant (509)
AODA	Alcohol and Other Drug Abuse Services (550)	EMS	Emergency Medical Services (531)	MEDINT	Medical Interpreter (538)
ARCHT	Architectural Technology (614)	ENG	English (801)	MEET	Meeting and Event Planning (109)
ART	Art (815)	ENTREP	Entrepreneurship (145)	MFGMNT	Manufacturing Maintenance (462)
AUDIO	Audio Production (701)	ENVHEL	Environmental Health (506)	MKTG	Marketing (104)
AUTO1	Auto Maintenance Technician (404)	EYI	Enhanced Yoga Instructor (546)	MLABT	Medical Laboratory Technology (513)
AUTO2	Auto Servicing Technology (602)	FIN	Financial (114)	MTLGY	Metallurgy (422)
AUTOBY	Auto/Chassis Finish (405)	FIRE	Fire Protection (503)	MUSIC	Music (805)
AVITEC	Aviation Technology (486)	FLANG	Foreign Language (802)	NAILS	Nail Technician (502)
BADM	Business Administration (102)	FSTEC	Food Science Technician (623)	NRSAD	Associate Degree Nursing (543)
BAKING	Baking (314)	FUNERL	Funeral Service (528)	NRSNA	Nursing Assistant (543)
BARCOS	Barbering/Cosmetology (502)	GENST	General Studies (890)	NRSPN	Practical Nursing (543)
BARBER	Barbering (502)	GEOSCI	Geological Science (806)	NURSAD	Associate of Nursing (510)
BAS	Building Automation Systems (481)	GLOBAL	Global Studies (140)	OFTECH	Office Technology (106)
BIOSCI	Biological Science (806)	GRDS	Graphic Design (201)	OTASST	Occupational Therapy Assistant (514)
BNLST	Business Analyst (102)	HEALTH	Health (501)	PHARMT	Pharmacy Technician (536)
BRHLTH	Business-Related Health (160)	HIST	History (803)	PHOTO	Photography (203)
CABMIL	Cabinetmaking and Millwork (409)	HIT	Health Information Technology (530)	PHYED	Physical Education (807)
CARP	Carpentry (410)	HORT	Landscape Horticulture (001)	PHYS	Physics (806)
CHEM	Chemistry (806)	HOTEL	Hospitality Management (109)	PLEGAL	Paralegal (110)
CHEMT	Chemical Technology (603)	HRMGT	Human Resources (116)	PLUMB	Plumbing (427)
CHILDD	Child Development (307)	HSM	Healthcare Services Management (530)	POLICE	Police Science (504)
CHNN	Community Health & Nutrition Navigator (539)	HUMSVC	Human Services (520)	POWENG	Power Engineering (428)
CIVIL	Civil Engineering Technology (607)	HVAC1	Air Conditioning, Refrigeration, Heating (401)	PSYCH	Psychology (809)
CLABT	Clinical Laboratory Technology (513)	HVAC2	Air Conditioning, Refrigeration and Heating Technology (601)	PTASST	Physical Therapy Assistant (524)
CNC	Computer Numerical Control (444)	HYDPNU	Hydraulics-Pneumatics (419)	QETECH	Quality Engineering Technology (623)
COMPSW	Computer Software (103)	IH	Integrative Health (546)	QLTYIN	Quality Interdisciplinary (625)
CONSTR	Construction Trades General (476)	INDSGN	Interior Design (304)	RADT	Radiography Technology (526)
COSMET	Cosmetology (502)	INDVTS	Individualized Technical Studies (825)	RBUS	Related Business (105)
CSG	Computer Simulation and Gaming (153)	INTP	Interpreter Technician (533)	RESPC	Respiratory Therapy (515)
CJS	Criminal Justice Studies (504)	IT	Information Technology (107)	RLEST	Real Estate (194)
CULART	Culinary Arts (316)	ITDEV	IT Development/Programming (152)	SOCSCI	Social Science (809)
CULMGT	Culinary Management (317)	ITNET	IT Networking (150)	SPEECH	Speech (810)
CVTECH	Cardiovascular Technology (521)	ITSEC	IT Information Security Systems (150)	SURGT	Surgical Technology (512)
DCC	Digital Content Creation (701)	ITSUP	IT Support (154)	TDMKG	Tool and Die Making (439)
DENAST	Dental Assistant (508)	LDRSHP	Leadership Development (196)	TRCKDR	Truck Driving (458)
DENHYG	Dental Hygiene (508)	LOGMGT	Logistics Transportation/ Materials Management (182)	TV	Television & Video Production (701)
DIESEL	Diesel/Powertrain Servicing (412)	MACHTL	Machine Tool (420)	WEBDEV	Web Development/Commercial Art (201)
DIETNT	Nutrition Dietetic Technician (313)	MASON	Bricklaying and Masonry (408)	WELD	Welding (442)
DLABT	Dental Lab Technician (507)			WELDTC	Welding Technology (621)

ACCTG – ADVMFG

ACCTG – Accounting (Department 101)

ACCTG-102 Credits: 3 Basic Office Accounting

The basic structure of accounting is presented. Emphasis is placed on the recording, classifying and summarizing phases. Particular attention is given to procedures related to administrative assistant work, such as petty cash, payroll, bank reconciliation and accounting software.

ACCTG-110 Credits: 3 Financial Accounting

A survey course stressing a user-oriented approach to basic financial statements, their content, format and use. Transactions, accounting principles and conventions are studied in terms of their effects on corporate financial statements. This course will not substitute for Accounting 1 (ACCTG-111) or Accounting 2 (ACCTG-113).

ACCTG-111 Credits: 4 Accounting 1

Accounting concepts and general principles are integrated with applications by working through the complete accounting cycle for service and merchandising enterprises. Emphasis is placed on analysis and interpretation as well as on the recording, classifying and summarizing phases. A practice set provides practical experience using accounting theory.

ACCTG-113 Credits: 4 Accounting 2

A continuation of Accounting 1, focusing on assets, liabilities, and accounting for partnerships and corporations. Financial statement analysis and the cash flow statement are also introduced. Students perform comprehensive financial analysis of a corporation. Prerequisite(s): Complete ACCTG-111 with minimum grade of C.

ACCTG-116 Credits: 4 Intermediate Accounting

A study is made of advanced accounting practices and procedures. Emphasis is placed on accounting theory as it relates to income determination and balance sheet preparation for corporate commercial enterprises. Prerequisite(s): Complete ACCTG-113 with minimum grade of C.

ACCTG-121 Credits: 4 Income Taxation

The determination of individual income taxes, including income, deductions, tax calculations, credits, and payments, are studied. Students are introduced to income tax laws as they apply to business entities such as partnerships, S-corporations, C-corporations, and fiduciary tax entities. Also covered are estate and gift taxes (transfer taxes). Students will prepare individual and business tax forms related to these topics both manually and using tax software.

ACCTG-122 Credits: 3 Accounting Software Applications

This class focuses on implementing computer functions in an accounting environment. It will cover structuring, organizing, manipulating and analyzing financial data through the use of Microsoft Excel computer software. This course assumes that students have basic knowledge of accounting. Students will take the Microsoft Office Excel Specialist Certification Exam for an extra fee.

ACCTG-126 Credits: 3 Accounting for Managers

Emphasis is placed on cost analysis, cost behavior and the use of cost data in budgetary cost control, internal profit measurement, profit planning, capital budgeting and decision-making.

ACCTG-130 Credits: 3 QuickBooks Online

This introductory QuickBooks Online course takes students through the procedures, controls, inputs and outputs in today's computer accounting systems. Students will be able to navigate a company file, process accounts receivable and accounts payable, manage time-tracking and payroll, track inventory and fixed assets, manage budgets, maintain ledgers and journals, and create reports. Students will take the required QuickBooks Certification Exam for an extra fee. Prerequisite(s): Complete ACCTG-111, ACCTG-102 or ACCTG-110.

ACCTG-140 Credits: 3 Accounting for Governmental and Nonprofit Entities

Overview course in the area of governmental and not-for-profit accounting. The basic concepts, techniques and terminology of fund accounting as utilized by governmental entities are emphasized. Institutional accounting for educational institutions and hospitals and the uniqueness of accounting for not-for-profit organizations and agencies are also studied. Prerequisite(s): Complete ACCTG-110 or ACCTG-113.

ACCTG-142 Credits: 2 Payroll Accounting

Procedures used in computing and recording wages and salaries, payroll taxes, and deductions are studied. Alternative processing systems (manual, service bureau and microcomputer) are explored. Federal and state payroll and tax regulations are studied, in addition to preparing payroll tax and information returns.

ACCTG-145 Credits: 3 Forensic Accounting

Emphasis is placed on explaining the various schemes used by employees to commit fraud, quantifying a company's financial loss from these schemes, illustrating the human factors in fraud, and preventing and detecting fraud. Prerequisite(s): Complete ACCTG-110 or ACCTG-113.

ACCTG-150 Credits: 3 Accounting Practice With a Systems Approach

Using source documents and a manual practice set, students will review procurement and accounts payable, billing and accounts receivable, cash control and general ledger systems. Adjusting entries will be reviewed. Students will then use QuickBooks software to complete an integrated case study with special emphasis on the general ledger, accounts payable, accounts receivable and payroll. Prerequisite(s): Complete ACCTG-116, ACCTG-130 and ACCTG-142 or ACCTG-143.

ACCTG-155 Credits: 3 Applied Individual Income Tax

Emphasis is placed on applying the knowledge and skills obtained in individual income tax by preparing tax returns for actual clients. Tax returns are prepared using IRS software. Prerequisite(s): Complete ACCTG-121 or ACCTG-123 with minimum grade of B.

ADVMFG – Advanced Manufacturing (Department 664)

ADVMFG-102 Credits: 3 Advanced Manufacturing Motor Controls

This course examines the fundamentals of electric motors and motor control. Students will learn to recognize and draw basic symbols, use the language of motor control, and apply these in industry adopted formats. Students will also learn to draw and read ladder and wiring diagrams, and be introduced to the logic used in motor control. Learners will apply this logic to correctly interpret, install, service, and wire control circuits. Wiring of panels, machines, and systems will also be examined. Prerequisite(s): Complete ADVMFG-100.

ADVMFG-113 Credits: 3 Advanced Manufacturing DC/AC Circuits 1

This course is designed for students interested in advanced manufacturing while enhancing their basic skills in electronics and mathematics. General mathematical and algebraic skills will be reinforced while being introduced to circuits using Ohm's Law and associated principles. Hands-on circuit building exercises, basic electronic instruments, and report writing will be emphasized in the lab. Prerequisite(s): Complete MATH-115.

ADVMFG-114 Credits: 3 Advanced Manufacturing DC/AC Circuits 2

This course, along with ADVMFG-113, helps complete the sequence for students requiring DC and AC electronics in advanced manufacturing technology programs, while enhancing their mathematical skills. Emphasis will include more complex circuits with the introduction and analysis of AC circuits. Students will perform laboratory experiments and prepare technical reports. Prerequisite(s): Complete ADVMFG-113.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

lashes on models following established safety procedures. Prerequisite(s): Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2). Complete AESTHE-135.

AESTHE-141 Credits: 2

Advanced Brow Techniques

Expand your brow business with training on brow tinting, microshading, lamination, threading and microblading. Identify licensing requirements, liability issues, pre-/post-client care, setup requirements, and hands-on practice. Prerequisite(s): Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2). Complete AESTHE-135.

AESTHE-143 Credits: 2

21st Century Brand and Marketing

Examine the business functions of marketing and branding in the salon/spa! Learn about target markets and the value in satisfying customer needs and wants to determine appropriate products, services and programs to serve these markets. Topics include branding and product development, marketing research, promotion, analytics, and service. Students will develop branding and marketing plans. Prerequisite(s): Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2). Complete AESTHE-135.

AESTHE-144 Credits: 2

Master Spa Services

AAS Program students perform advanced services on public clients in a spa setting for hands-on practice. Services include advanced exfoliation, hair removal, lash and brow services menu items. Prerequisite(s): Must be admitted to the Aesthetician Skin Care Therapist program (10-502-2). Complete AESTHE-135, AESTHE-138, AESTHE-139, AESTHE-140 and AESTHE-141.

AESTHE-155 Credits: 3

SPA Science Fundamentals

Reviews Aesthetician program expectations. Focuses on concepts of time management, stress management, professional ethics and diverse pigmentation. Students are also introduced to products used within the Aesthetician program. Prerequisite(s): Must be admitted to Aesthetician program (31-502-2) or Aesthetician Skin Care Therapist program (10-502-2).

AESTHE-156 Credits: 3

Spa Product Sciences

Identify common skin diseases and disorders and explore side effects of medication on skin. Discover how product chemistry, specific ingredients and use of spa treatments can improve common skin conditions. Students are introduced to aromatherapy and product development. Prerequisite(s): Must be admitted to the Aesthetician program (31-502-2) or the Aesthetician Skin Care Therapist program (10-502-2). Complete AESTHE-155.

ANIM – Animation (Department 207)

ANIM-101 Credits: 3

Basic Drawing for Animators

This course introduces students to the basic principles of drawing volume, shape and form in a digital environment. Students learn to color, construct and create animations in an industry standard software package. Students will explore digital painting, scene compositing, creating x-sheets, building character libraries, sync and adjusting timing as applied to animation filmmaking.

ANIM-104 Credits: 3

Principles of Character Development

This course will introduce students to character development as it relates to the field of computer animation. Concepts such as pose, expression, scale, squash and stretch will be explored. Students will use hand drawing techniques and traditional “cartoon” style characters. Students will also learn to bring their drawings into the computer to be adjusted, modified and enhanced with Photoshop.

ANIM-106 Credits: 3

Principles of 3D Animation

This introductory course will guide students through the concepts and techniques used to produce and animate virtual objects in a virtual three-dimensional environment. Basic modeling, texturing and Forward Kinematic motion techniques will be covered using 3D Studio Max.

ANIM-110 Credits: 3

Digital Life Drawing

This course will introduce students to the foundation of gesture and quick sketching. Students will draw utilizing various mediums in Photoshop on the Wacom Cintiq tablet/monitors. This course will be offered in the Spring semester.

ANIM-111 Credits: 3

Intermediate Digital Life Drawing

This course will introduce students to the more advanced techniques of quick sketching and digital painting. Students will draw utilizing various mediums in Photoshop on the Wacom Cintiq tablet/monitor. This course will be offered in the Fall. Prerequisite(s): Complete ANIM-110.

ANIM-114 Credits: 3

Storyboard Pro

Contents to be covered include purposes and formats of storyboards, basic terminology and concepts used in storyboarding, and the application of storyboarding techniques. We will study the basic formats and camera techniques utilized in storyboarding. Prerequisite(s): Complete ANIM-101.

ANIM-115 Credits: 3

Refining the Character

In this course, students will continue to add details, personality and life to their characters. Students will study the human form and the

underlying muscular structure as well as body shape, exaggerating muscles, action poses and foreshortening. Prerequisite(s): Complete ANIM-120 and ANIM-125.

ANIM-120 Credits: 3

Environment and Set Design

Students concentrate on the planning and construction of architectural and environmental forms to create sets and backgrounds for animation projects utilizing 3ds Max. Basic architectural principles as they relate to animation and appropriate effects for specific themes are explored as well as landscape environments and atmospheric lighting effects, outer space lighting effects and weather effects. Class activities include using specialized software tools for architectural and environmental forms in the creation of thematic levels and sets. Prerequisite(s): Complete ANIM-106.

ANIM-121 Credits: 3

Intermediate 2D Animation

Students will continue to develop their skills in character animation in the Adobe Animate, Photoshop, After Effects. Students will be presented with a series of animated assignments dealing with the 12 Principles of Animation. Prerequisite(s): Complete ANIM-138.

ANIM-124 Credits: 3

Animation Layout and Design

Introduction of concepts/principles of layout design in 2D animation using a variety of assignments. Students will be expected to develop a working knowledge of perspective, multi-plane camera techniques and placement of characters/elements into a scene. Prerequisite(s): Complete ANIM-114.

ANIM-125 Credits: 3

3D Modeling

This course moves students into more complex modeling and surfacing challenges using 3ds Max. Specialized contemporary modeling techniques such as NURBS and subdivision (SUB-D) surfaces are explored as well as specialized shaders, displacement maps and other advanced surfacing options. Students complete the semester with the design and creation of a complex, multi-part object correctly constructed, linked and boned for advanced animation techniques. Prerequisite(s): Complete ANIM-106.

ANIM-130 Credits: 3

3D Simulations and Illustrations

This course will explore product and packaging design, medical illustration and mechanical illustration. The use of nontraditional shaders such as cartoon shading will be explored in order to achieve a more hand-drawn or illustrated look. Rendered output will also be manipulated with industry-standard image adjustment tools. Prerequisite(s): Complete either ANIM-125 or ANIM-138.

ANIM – ARCHT

ANIM-133 Credits: 3

Advanced Conceptual Design

Conceptual design that encompasses all aspects of animation theory and practices. Students will work toward conceptual design of the backgrounds, props and secondary characters to support the main cast of characters. Photoshop will be used in class. Prerequisite(s): Complete ANIM-114.

ANIM-135 Credits: 3

Character Expression and Lip Sync

This class will explore the art of creating facial expressions and synchronizing a character's mouth movement with a voice track. Techniques will range from traditional hand-drawn to 3D animation. Prerequisite(s): Complete ANIM-180.

ANIM-138 Credits: 3

Animation for Game Development

Students will be introduced to breaking movement down into cycles of animation and 2D sprites to be used in game development. Also, time will be allocated to developing basic background level designs as applied to game development. Prerequisite(s): Complete ANIM-101 and ANIM-104.

ANIM-140 Credits: 3

Timelines, Keyframes and Kinematics

This course continues from ANIM-125 3D Modeling. We will explore and analyze character motion from several sources in order to accurately and believably replicate that motion with our digital characters. We will also explore topics such as using Inverse and Forward Kinematics during an animation using 3ds Max. Prerequisite(s): Complete ANIM-101 and ANIM-106.

ANIM-141 Credits: 3

Acting for Animation/Lip Sync

The course will introduce students to concepts and principles of acting for animation and lip syncing utilizing Adobe Animate and Adobe Character Animator. Students will be responsible for animated acting with lip sync as applied to animation. Prerequisite(s): Complete ANIM-110 and ANIM-121.

ANIM-145 Credits: 3

Intermediate 3D Animation

This course continues from ANIM-140 Timelines, Keyframes and Kinematics. We will explore and analyze mechanical and quadruped motion from several sources in order to accurately and believably replicate motion with our digital objects and creatures. We will also explore topics such as various constraining techniques and automated approaches used during this type of animation using 3ds Max. Prerequisite(s): Complete ANIM-140.

ANIM-150 Credits: 2

Advanced Animation

This is a project-based course. Students will create a short film (two to three minutes in length) using 2D or 3D animations. During this class, students will be expected to meet production

deadlines, follow proper animation production processes and create an entertaining film for the final project. Intensive studio time will be available for the students. Students will have access to the instructor at all times. Students will be expected to communicate with the instructor each class to discuss progress. This course allows the student an in-depth study of the animation production process. Prerequisite(s): Complete ANIM-145 or ANIM-121.

ANIM-156 Credits: 3

Broadcast Animation

This course introduces students to the concepts of "motion graphics" using bitmapped imagery. Using the industry standard software, After Effects, students will explore animated composition techniques, along with comparison of 2D and 3D technologies widely used to produce animation for the television and video industries.

ANIM-160 Credits: 2

Animation Portfolio

Each student finalizes a series of 30-second to three-minute animated shorts demonstrating his/her capabilities. The collection is prepared for distribution to potential employers or to four-year animation degree programs. In addition, each student prepares a professional-level paperwork folio and a personal ID package (stationery, business cards, etc.), and is required to participate in the class preparation for the year-end departmental portfolio show in conjunction with other degree programs. Prerequisite(s): Complete ANIM-124 or CSG-181.

ANIM-165 Credits: 3

Motion Analysis for Animation

This course will guide students through the concepts and techniques used to add natural movement to digital animation. Students will work through several motion analysis techniques and apply them to their animations. The techniques explored in this course include rotoscoping, using depth-sensing cameras and 3D motion capture. Prerequisite(s): Complete ANIM-145 or ANIM-121.

ANTECH – Anesthesia Technology (Department 541)

ANTECH-102 Credits: 2

Introduction to Anesthesia Technology

This course introduces distinctive areas of anesthesia technology and the role of the technologist. An overview of typical surgical procedures and instrumentation and surgical department orientation are covered as well as medical terminology, blood-borne pathogens and nonpatient related emergencies. Research papers on related topics and a group project will be required. Guest speakers and site visits to local health care/diagnostic facilities may be scheduled. Prerequisite(s): Must be admitted to the Anesthesia Technology program (10-541-1).

ANTECH-117 Credits: 3

AT Fundamentals 1

Students are introduced to the surgical suite and the typical daily duties of an anesthesia technologist. Didactic as well as laboratory instruction are provided to supply the student with the required theoretical principles of the profession. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Complete ANTECH-102, and BIOSCI-177 or BIOSCI-201. Must be admitted to the Anesthesia Technology program (10-541-1).

ANTECH-118 Credits: 3

AT Instrumentation 1

The primary focus of this course is the anesthesia machine. However, all ancillary equipment, including but not limited to gas cylinders, hospital supply lines, ventilators and absorbers will also be covered. The setup, calibration, operation, basic troubleshooting, maintenance and safety checks for each is taught. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Must be admitted to the Anesthesia Technology program (10-541-1). Complete ANTECH-102.

ANTECH-120 Credits: 2

AT Clinical Procedures

This four-week course is the student's first opportunity to observe and gain experience in a healthcare facility. Twelve hours per week are scheduled in the hospital setting under direct supervision. Students will observe all procedures and may begin to assist in nondirect patient duties. Students experience various AT environments as scheduled. An additional four hours per week are required for on-campus lectures/discussions. Prerequisite(s): Must be admitted to the Anesthesia Technology program (10-541-1). Complete ANTECH-117 and ANTECH-118.

ANTECH-133 Credits: 3

Anesthetics

The clinical importance of drug delivery is presented with an emphasis on the most commonly administered anesthetics, as well as other preoperative drugs. Additionally, the federal drug approval processes, various delivery methods, dose calculations and a review of the nervous system are presented. Prerequisite(s): Complete ANTECH-120.

ANTECH-137 Credits: 3

AT Fundamentals 2

The concepts learned in ANTECH-117 will be expanded upon. Focus will be on the various types of surgical procedures, including emergency situation management and how the role of the anesthesia technologist varies in each. Patient transport, monitoring and positioning will be stressed. Prerequisite(s): Complete ANTECH-120.

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ANTECH-138 Credits: 3

AT Instrumentation 2

This course is a continuation of ANTECH-118 and expands upon the scope of anesthesia instrumentation. Various pieces of airway equipment, monitoring devices, point of care testing analyzers, and cleaning and disinfection of anesthesia equipment will be discussed and demonstrated. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Complete ANTECH-120.

ANTECH-139 Credits: 3

Anesthesia Technology Clinical Experience 1

This course presents students with their first opportunity in a direct patient care setting, while beginning to perform the duties of an AT. Students will be able to correlate their didactic and laboratory classes with the day-to-day duties of an anesthesia technologist. Prerequisite(s): Complete ANTECH-120.

ANTECH-185 Credits: 2

Anesthesia Technology Clinical Seminar

Students discuss with other students the cases most recently performed during their clinical experience. Research papers will be required on a variety of related topics as well as a review of the written journal detailing the clinical phase of instruction. This course will help to prepare students for the written examinations that will lead to credentialing in AT. Guest speakers may be scheduled. Resume-writing and interview skills will be covered. Prerequisite(s): Complete ANTECH-139.

ANTECH-186 Credits: 4

Anesthesia Technology Clinical Experience 2

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the clinical setting. A written journal detailing the clinical phase of instruction will be required. Prerequisite(s): Completion of or currently enrolled in ANTECH-185.

ANTECH-187 Credits: 4

Anesthesia Technology Clinical Experience 3

This course is a continuation of ANTECH-186 and provides the practical application to perfect skills and knowledge through a wider range of cases. Students begin to take a more active and responsible part in the day-to-day tasks associated with their clinical duties. A written journal detailing the clinical phase of instruction will be required.

AODA – AODA Services (Department 550)

AODA-109 Credits: 3

Drug Use and Abuse

Students are acquainted with the pharmacological effects of chemical use/abuse. This course takes an analytic approach to identification, intervention, prevention and treatment issues.

AODA-150 Credits: 3

Professional Readiness and Ethical Responsibilities

This course is designed to familiarize the student with the obligations of an addiction counselor to adhere to accepted ethical and behavioral standards of conduct and continuing education. An emphasis on professional codes of ethics, federal and state laws and agency regulations, and professional development is maintained.

AODA-151 Credits: 3

Clinical Evaluation and Treatment

This course provides an overview of the key components of the evaluation and treatment planning processes, including the necessary knowledge base, skills and attitudes of the professional. This is also a practice-oriented course, and students will participate in a variety of screening assessment and treatment planning situations. Prerequisite(s): Complete HUMSVC-102, HUMSVC-103 and HUMSVC-113.

AODA-152 Credits: 3

Service Coordination and Documentation

This course focuses on the administrative, clinical and evaluative activities that bring the client, treatment services, community agencies and other resources together to focus on issues and needs identified in the treatment plan. Documentation requirements and skills, record management and confidentiality issues are also a primary focus of the class. Prerequisite(s): Complete AODA-109.

AODA-154 Credits: 3

Counseling Skills Development

This course provides instruction and practice opportunities to develop the specific skills necessary for counseling individuals, groups, families and significant others. These skills include establishing a helping relationship, interviewing, using methods that reinforce positive behavior, motivational techniques, reframing and redirecting negative behaviors, crisis management, and applying culturally appropriate intervention strategies. Prerequisite(s): Complete HUMSVC-102, HUMSVC-103 and HUMSVC-113.

AODA-160 Credits: 1

Ethical Dilemmas

This course provides an opportunity for reflection and conversation about the ways in which personal and professional values impact work with clients. Emphasis is placed on exploring roles, rules and boundaries that are necessary for the helping relationship. An eight-step process for ethical decision-making will be explained and applied to select case examples.

AODA-161 Credits: 1

Treatment Issues

This course applies fundamental principles of the helping relationship to working with clients who have problems related to their substance use. Emphasis is placed on application of current treatment models in the areas of assessment, case management, education, professional responsibilities and counseling.

AODA-162 Credits: 1

Service Delivery Issues

This course focuses on issues related to delivery of substance abuse services to diverse population groups. Emphasis is placed on providing effective tools for case management and coordination.

ARCHT – Architectural Technology (Department 614)

ARCHT-101 Credits: 4

Architectural Theory and Drawing 1

This course introduces students to the architectural process and the basic skills required of the technician, such as architectural lettering, freehand sketching and reading architectural drawings. Students are also introduced to the computer as a tool to be used in architectural projects.

ARCHT-103 Credits: 5

Architectural Theory and CADD 3

Students are expected to continue developing their skills in architectural design, detailing, sketching and computer applications. They will further explore the design process and be introduced to site planning and architectural design and development principles. The emphasis in construction documentation, detailing and building information modeling will be on commercial construction systems, such as reinforced concrete and steel. Computer work will include expanded applications for CADD modeling and presentation programs. Prerequisite(s): Complete ARCHT-109.

ARCHT-104 Credits: 5

Architectural Theory and CADD 4

Students are expected to use the knowledge gained in previous courses in the development of a design project of their own choosing and the associated construction documentation. Students will be expected to use the computer in the development of at least 75% of this final project. Additional computer work will include integration and budgeting, estimating and specification writing assignments in ARCHT-141 Architectural Practices and Procedures. Prerequisite(s): Complete ARCHT-103.

ARCHT-105 Credits: 2

Architectural History

This course offers an introduction to the field of architecture. An appreciation for architecture is developed through an overview of architectural history and an analysis of architectural design and construction concepts that have been applied to buildings from the Egyptian period through the present time and into the future.

ARCHT – AUTO1

ARCHT-107 Credits: 2

Building Estimating

This course introduces the student to building estimating. It covers basic techniques, practices, procedures of “quantity takeoffs” and calculating material and labor requirements for residential and commercial building construction. The course also reviews design, bidding and contract administration phases of a project, including introductory aspects of project scheduling and construction management. Prerequisite(s): Complete ARCHT-109.

ARCHT-110 Credits: 2

Computer Applications for Architecture

This computer applications course is designed to provide students with word processing, spreadsheet, PowerPoint and internet skills used in the field of architecture. Additionally, the course is designed to introduce students to AutoCAD and the interface of the software with the MS Windows environment and the internet.

ARCHT-112 Credits: 4

Architectural Theory and CADD 2

The second of four studio courses that make up the core of the Architectural Technology program. Students continue developing their skills in architectural drafting, sketching and 2D architectural computer applications. The early stages of the design process, use of architectural reference materials for research and presentations are covered. Universal design and energy responsive design are introduced with emphasis on wood and masonry construction. Prerequisite(s): Must be admitted to the Architectural Technology program (10-614-1). Complete ARCHT-101.

ARCHT-120 Credits: 3

Structural Systems and Components

The main objective of this course is to identify structural systems and explain how they function. Emphasis is placed on the relationship between component parts and the structure as a whole. This is accomplished through the use of descriptions, computations and analysis. Prerequisite(s): Complete ARCHT-101.

ARCHT-121 Credits: 2

Architectural Materials and Methods 1

ARCHT-121 is a detailed examination of light wood frame construction — foundations, floors, walls, roofs and finishes. Topics include construction details and sequencing, documentation with wall section and framing plan, loads, load paths, member sizing, UDC requirements, water penetration, and transfer of heat, air, and water vapor.

ARCHT-122 Credits: 3

Architectural Materials and Methods 2

ARCHT-122 covers the common materials and methods of commercial construction, including masonry, heavy timber, structural frames, steel, site-cast and precast concrete, deep foundations, cladding, and low-slope roofs. The course covers the general structural behavior of each of these systems. It covers how assemblies control the flow of liquid water, heat, air and water vapor,

as well as fire ratings and other applicable requirements of the International Building Code. Documentation includes detailed sections, framing plans and roof plans. Prerequisite(s): Complete ARCHT-121.

ARCHT-131 Credits: 2

Mechanical and Environmental Systems 1

This course is an introduction to the broad field of mechanical systems as they relate to building design. It will provide students with the information and tools they require to assess the need for those systems in buildings. Emphasis is on understanding the fundamentals of heat transfer, thermal properties, building component locations, and the interrelationships of mechanical systems and building. Students will be expected to use the knowledge gained to read and interpret HVAC drawings. Prerequisite(s): Complete ARCHT-109.

ARCHT-132 Credits: 2

Mechanical and Environmental Systems 2

A course designed to teach students the basic concepts of plumbing, electrical illumination, fire protection and acoustical systems as they pertain to human comfort and safety in buildings. The student will develop the ability to produce architectural/mechanical drawings and to perform initial calculations for sizing water supply systems, electrical systems and lighting layouts. Prerequisite(s): Complete ARCHT-103 and ARCHT-131.

ARCHT-141 Credits: 2

Architectural Practices and Procedures

This course introduces students to the practice of architecture. It reviews in some detail the AIA documents and procedures used in the design and construction of buildings as they proceed through an architectural office, from initial design concept, to construction documentation, to final construction. The possible roles the architectural technician may play in this process are explored. Prerequisite(s): Complete ARCHT-103.

ARCHT-150 Credits: 2

Introduction to Revit

This course introduces the student to 3D computer drafting and BIM (Building Information Modeling) using Revit software. It builds on students’ base knowledge of industry standard working drawings and construction materials as the basis for developing Revit models. The student will learn how to construct parametric drawings for a building or structure; including Plans, Elevations, and Sections, as well as Axonometric views. Annotation strategies, such as dimensioning and text, will also be covered. Employing title block templates and sheet composition, students will prepare industry-standard drawing sets for presentation. Prerequisite(s): Complete ARCHT-101, CIVIL-102 or INDSGN-102.

ART – Art (Department 815)

ART-201 Credits: 3

Understanding Art

This is a survey course with emphasis upon painting, sculpture and architecture. Major topics include art forms and styles, contributions and achievements of periods in the development of Western art and world art styles.

ART-202 Credits: 3

Renaissance-Modern Art and Architecture

This art history class will survey art making through its historical, religious, social and political contexts in Western civilization from the Renaissance period (c. 1400 AD) through the Modern Age. Major focus will be placed on how cultural and religious values during the historical periods under study are reflected in art and the artistic significance of the art of these periods to our considerations of art and culture today.

ART-203 Credits: 3

Ancient to Medieval Art and Architecture

This art history class will survey art making through its historical, social, religious and political contexts in Western civilization from the Prehistoric period through the Middle Ages. Major focus will be placed on how cultural and religious values during the historical periods under study are reflected in art and the cultural significance of the art of these periods to our considerations of art and culture today.

ART-204 Credits: 3

Drawing From Observation

The goal of this course is to explore the process of drawing as a way of seeing, investigating and experiencing. The student learns to use line, shape, value, texture, space, proportion and composition while at the same time striving for increased eye-hand coordination. The course places primary emphasis on depicting forms in space through the observational drawing of objects and self-portraits. While experimentation and imaginative problem-solving are important and essential aspects of the course, the main thrust of the course is analytical seeing and drawing while using a variety of black-and-white media.

AUDIO – Audio Production (Department 701)

AUDIO-100 Credits: 1

Introduction to Audio Software

Introduction to Audio Software is a lab introducing the basics of software programs: Finale, Logic and Pro Tools in music composition, music production and audio recording focusing on the recording and manipulating midi and audio.

AUDIO-102 Credits: 3

Techniques of Sound Recording

Studio recording is the focus of this course. The increasing use of electronic amplifying/recording equipment in the field of music necessitates that the musician have basic

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knowledge of the hows and whys of sound and recording equipment. Microphone selection and placement, signal flow and signal processing during tracking and mixing process will have a central focus in lecture and lab hours. Prerequisite(s): Completion of or currently enrolled in AUDIO-100.

AUDIO-103 Credits: 3 **Recording Live Concerts**

Recording Live Concerts is a lecture/lab for the audio engineer teaching the elements of professionalism, the technical aspects of signal flow, microphone selection and placement and mixing, specifically pertaining to the live music environment. Prerequisite(s): Completion of or currently enrolled in AUDIO-100.

AUDIO-111 Credits: 1 **Advanced Audio Software**

This course offers in-depth, practical study and application of current industry standard digital audio workstation music software programs. Prerequisite(s): Complete AUDIO-100 or MUSIC-113.

AUDIO-114 Credits: 2 **Critical Listening of Sound/Music**

This course introduces ear training and critical listening from the perspective of the audio engineer including frequency recognition and contemporary production techniques. The student will learn to aurally analyze and identify contemporary popular song forms and production styles used. Prerequisite(s): Complete AUDIO-100 and MUSIC-148.

AUDIO-116 Credits: 3 **Advanced Techniques/ Sound Recording**

This course builds on the knowledge of the Techniques of Sound Recording in the first semester. Emphasis is placed on creating stereo and surround sound, mixing and mastering. Prerequisite(s): Complete AUDIO-102 or MUSIC-154.

AUDIO-117 Credits: 3 **Sound Reinforcement**

Sound Reinforcement provides the student with both a theoretical and practical background in live sound reinforcement. Emphasis is placed on both indoor and outdoor sound reinforcement applications. The components of the sound system are examined in detail and are then utilized by the student in providing live sound for MATC concerts.

AUDIO-118 Credits: 2 **Studio Management and Design**

Studio Management and Design covers the fundamentals of basic studio operations, including accounting, client relations, staff, advertising and equipment management. Strong emphasis is placed on scheduling, promotion, and marketing and interpersonal relationship communications. Also covered are the basic elements of studio construction, room acoustics and project studio acoustic treatments. Prerequisite(s): Complete AUDIO-102.

AUDIO-120 Credits: 3

Audio Production for Video Media

This is a lecture/lab covering the issues of audio for film including ADR, Foley, library sound effects, sound effect creation and enhancement, field recording, managing sync dialog, environmental ambiance, and using music libraries and original music. Prerequisite(s): Complete AUDIO-100.

AUDIO-125 Credits: 1

Advanced Midi Recording

Advanced Midi Recording covers the development, implementation, theory and uses of MIDI equipment. The practical operation of MIDI hardware and software of several types is learned through lecture demonstrations and project assignments. Prerequisite(s): Complete AUDIO-100.

AUDIO-126 Credits: 2

Electronics for Audio Engineers

Students will learn the principles of electronic technology with an emphasis on applications to audio engineering both in theory and practice. Prerequisite(s): Complete AUDIO-102 or MUSIC-154.

AUDIO-127 Credits: 3

Mastering for Media

This course is an introduction to the theory and practical approach to recording audio for gaming and web applications. Prerequisite(s): Complete AUDIO-102.

AUDIO-128 Credits: 3

Final Project-Field Work

This is the student's recording project of their choosing of any of the audio disciplines including in studio multi-track recording, live concert recording, sound for film, gaming or web interactive audio. From concept to completion, the student will notate, process and journal the details in creating the audio recording. Prerequisite(s): Complete AUDIO-116.

AUDIO-130 Credits: 1

Ableton Live

This course looks into how to compose, produce and perform original music using Ableton Live. Prerequisite(s): Complete AUDIO-111.

AUTO1 – Auto Maintenance Technician (Department 404)

AUTO1-300 Credits: 2

Express Service

This course introduces the student to automotive express and maintenance services as it relates to the auto technician. Use of electronic service manuals, service bulletins and online training will be covered. Students will perform express service duties, including wheel and tire services and pre-delivery procedures.

AUTO1-302 Credits: 2

Powertrain Maintenance and Light Repair Fundamentals

The fundamentals of design, construction and operation of automotive engine and drivetrain components are studied. Discussions, lectures and demonstrations pertain to the diagnosis, maintenance and light repair of these units.

AUTO1-304 Credits: 4

Powertrain Maintenance and Light Repair Lab

Instruction is given in the diagnosis, inspection, maintenance and light repair of automotive engine and drivetrain components. Practical lab exercises are performed on late-model vehicles or lab mock-ups. Prerequisite(s): Completion of or currently enrolled in AUTO1-302 and AUTO1-306.

AUTO1-306 Credits: 2

Heating and Air Conditioning Fundamentals

Construction and operation of automobile air conditioning systems are studied through lecture and demonstration. Service, repair, testing, diagnosis and recovery/recycling are performed on automobile conditioning systems. Upon successful completion of the CFC unit, a state certificate will be issued.

AUTO1-308 Credits: 2

Brake and Steering Suspension Fundamentals

The fundamentals of design, construction and operation of automotive brake and steering/suspension components are studied. Discussions, lectures and demonstrations pertain to the diagnosis, maintenance and repair of these units.

AUTO1-310 Credits: 4

Brakes and Steering Suspension Lab 1

Instruction is given in the diagnosis, inspection, maintenance and repair of automotive brake and steering/suspension components. Practical lab exercises are performed on late-model vehicles or lab mock-ups.

AUTO1-312 Credits: 2

Brakes and Steering Suspension Lab 2

Construction, operation, service and testing of automotive safety restraint systems (SRS), steering column, electronic suspension and anti-lock brake systems are studied through lecture and demonstration. Service and testing are performed on these components and on late-model vehicles.

AUTO1-314 Credits: 2

Electrical and Electronic Fundamentals

The fundamentals of automotive electricity and the design, construction and operation of automotive electrical and electronic systems and components are studied. Discussions and lectures pertain to the diagnosis and repair of these systems and units.

AUTO1 – AUTOBY

AUTO1-316 Credits: 4

Electrical and Electronic Lab

Instruction is given in the diagnosis, inspection and repair of automotive electrical and electronic systems and components. Practical lab exercises are performed on late-model vehicles or lab mock-ups. Prerequisite(s): Completion of or currently enrolled in AUTO1-314.

AUTO1-318 Credits: 2

Auto Instrumentation and Accessories

Construction, operation, service and testing of automotive instrumentation and accessories are studied through lecture and demonstration. Service and testing are performed on these components and on late-model vehicles. Prerequisite(s): Completion of or currently enrolled in AUTO1-314 and AUTO1-316.

AUTO1-322 Credits: 2

Engine Control System 1 Fundamentals

The fundamentals of design, construction and operation of automotive engine control, ignition and fuel systems and components are studied. Discussions and lectures pertain to the diagnosis, maintenance and repair of these units. Prerequisite(s): Complete AUTO1-314, AUTO1-316 and AUTO1-318. Completion of or currently enrolled in AUTO1-324 and AUTO1-326.

AUTO1-324 Credits: 4

Engine Control Systems 1 Lab

Instruction is given in the diagnosis, inspection and repair of automotive engine control, ignition and fuel systems and components. Practical lab exercises are performed on late-model vehicles or lab mock-ups. Prerequisite(s): Completion of or currently enrolled in AUTO1-322.

AUTO1-326 Credits: 2

Engine Control Systems 2 Fundamentals/Lab

The principles of operation, construction and servicing of emission controls are studied through lectures, discussions and demonstrations. Service and testing techniques are performed on various automobile emission systems and components. Prerequisite(s): Completion of or currently enrolled in AUTO1-322.

AUTO2 – Auto Servicing Technology (Department 602)

AUTO2-147 Credits: 2

Electrical Systems 2

This course builds on the knowledge and skills gained in Electrical Systems 1. Students use specialized equipment to diagnose and service electrical and electronic systems. Emphasis will be placed on computer-controlled systems and vehicle communication systems. Prerequisite(s): Complete AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-148 Credits: 2

Manual Transmission and Drivelines

The course covers the operation, diagnosis and repair of manual transmissions, transaxles, differentials, transfer cases, drive axles, four-wheel drive and all-wheel drive systems. Prerequisite(s): Complete AUTO2-151 and AUTO2-147. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-150 Credits: 2

Automotive Fundamentals

This course provides a foundation for students entering the automotive service industry. Instruction in shop practices, tool usage and safety, maintenance and minor repair procedures will be performed.

AUTO2-151 Credits: 4

Electrical Systems 1

This course introduces the student to basic automotive electrical and electronic circuits. Included are meter usage, electrical system diagnosis and repair. Operation and testing of batteries, starting and charging systems will also be covered. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-152 Credits: 2

Automotive Climate Control

This course covers the principles, theory of operation, diagnosis, service and repair of various automotive heating, air conditioning and air delivery systems. Includes preparation for federal certification. Prerequisite(s): Complete AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-153 Credits: 3

Alignment, Suspension and Steering

This course covers the design, construction and operation of various steering and suspension systems used on late model vehicles, including electronic ride control, electric steering and tire pressure monitoring systems. Alignments, diagnosis and repair procedures will be performed. Prerequisite(s): Complete AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-154 Credits: 2

Fuel Management 1

This course covers basic engine operation, fuel systems and ignition systems. Diagnosis and repair of these systems will also be introduced. Prerequisite(s): Completion of or currently enrolled in AUTO2-151 and AUTO2-147. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-155 Credits: 4

Fuel Management 2

This course builds on the knowledge and skills gained in Fuel Management 1, with emphasis placed on engine sensors, computers and control devices used for electronic engine controls and emissions. Diagnosis and repair will also

be covered. Prerequisite(s): Completion of or currently enrolled in AUTO2-151 and AUTO2-154. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-156 Credits: 4

Fuel Management 3

This course builds on the knowledge and skills gained in Fuel Management 2, with emphasis on diagnosing advanced engine performance concerns. Direct injection, turbos and variable cam timing will be included. Prerequisite(s): Complete AUTO2-151, AUTO2-147, AUTO2-154 and AUTO2-155. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-157 Credits: 4

Engine Concepts

This course covers the operating principles and construction of internal combustion engines. Disassembly, cleaning, inspection, measuring, and reassembly will be included. Prerequisite(s): Completion of or currently enrolled in AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-158 Credits: 4

Auto Transmissions

This course covers the theory and operation of the automatic transmissions and transaxles. Instruction includes electronic, hydraulic and mechanical systems, diagnosis, and repair. Prerequisite(s): Complete AUTO2-151 and AUTO2-147. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-159 Credits: 4

Automotive Brakes

This course covers the design, construction and operation of various braking systems. Diagnosis, service and repair of disc, drum, power brakes, anti-lock, traction control and stability control are included. Prerequisite(s): Complete AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

AUTO2-160 Credits: 3

Automotive Accessories

This course covers the design and operation of various automotive accessories found on today's vehicles. Diagnosis and repair of these systems will also be covered. Prerequisite(s): Complete AUTO2-151 and AUTO2-147. Must be admitted to the Automotive Technology – Comprehensive Program (10-602-6). Must be employed at an approved automotive repair facility.

AUTO2-161 Credits: 3

Express Service

This course introduces the student to the dealership as it relates to the technician. Use of electronic service manuals, service bulletins and online training will be covered. Students will perform quick-lane duties, wheel and tire services, and pre-delivery procedures. Prerequisite(s): Must be admitted to the Automotive Technology – Comprehensive program (10-602-6).

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

AUTO2-164 Credits: 1

Applied Automotive Experience 1

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provides occupational experience in the automotive field. Prerequisite(s): Completion of or currently enrolled in AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Must be employed at an approved automotive repair facility.

AUTO2-165 Credits: 1

Applied Automotive Experience 2

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provides occupational experience in the automotive field. Prerequisite(s): Completion of or currently enrolled in AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Must be employed at an approved automotive repair facility.

AUTO2-166 Credits: 1

Applied Automotive Experience 3

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provides occupational experience in the automotive field. Prerequisite(s): Completion of or currently enrolled in AUTO2-151. Must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Must be employed at an approved automotive repair facility.

AUTO2-167 Credits: 1

Applied Automotive Experience 4

Provides the student an opportunity to reinforce newly acquired skills in an approved automotive repair environment and provide occupational experience in the automotive field. Prerequisite(s): Completion of or currently enrolled in AUTO2-151 and must be admitted to the Automotive Technology – Comprehensive program (10-602-6). Must be employed at an approved automotive repair facility.

AUTOBY – Auto Chassis-Finish (Department 405)

AUTOBY-301 Credits: 1

Plastic and Composites Repair

The use of plastics is commonplace on vehicle construction. Plastics are commonly damaged during a collision, and repairs to the plastic and composites may be required. This course provides the learner with the knowledge, processes and skills required to identify the type of plastic, the possible repair options, the repair techniques and the refinishing options for various types of plastics. Prerequisite(s): When registering for this course, students must also be registered in AUTOBY-300, AUTOBY-302, AUTOBY-303 and AUTOBY-305.

AUTOBY-304 Credits: 1

Basic Auto Mechanical Systems

This course is designed to develop the ability to interpret automobile drawings and to understand the relation between drawings, basic trade theory and shop operations.

AUTOBY-312 Credits: 1

Electrical Servicing for Auto Body Repairing

Fundamental facts and principles of automotive electricity that apply to auto body repair are presented. Instruction covers such subjects as the storage battery, Ohm's Law, and lighting, charging, and ignition circuits.

AUTOBY-313 Credits: 1

Introduction to Color Match and Aluminum

Lecture-demonstrations acquaint students with sheet metal preparation and refinishing techniques. Students practice color matching new and weathered finishes as well as sanding, masking, feather-edging, and applying undercoats, sealers, and color coats. Aluminum tools and technique differences are discussed and students will have the opportunity to use the aluminum equipment. Prerequisite(s): Complete AUTOBY-300, AUTOBY-301, AUTOBY-302, AUTOBY-303 and AUTOBY-305. Completion of or currently enrolled in AUTOBY-316, AUTOBY-317 and AUTOBY-315.

AUTOBY-314 Credits: 1

Front-End Alignment

This course covers the diagnosis and correction of steering and alignment problems. Students are instructed in the construction and operation of front-end alignment and wheel-balancing equipment used to correct faults in front-end suspension systems.

AUTOBY-315 Credits: 5

Applied Collision Repair 2

Students are provided further lab experiences in various repairs including work on unibody construction; door locks and window regulators; aligning body components; wiring accessories; wet-sanding; and color mixing, blending and spraying. Trade safety regulations are emphasized. Practical lab exercises are performed on appropriate vehicles. Prerequisite(s): Complete AUTOBY-300, AUTOBY-301, AUTOBY-302, AUTOBY-303 and AUTOBY-305. Completion of or currently enrolled in AUTOBY-316, AUTOBY-317 and AUTOBY-313.

AUTOBY-316 Credits: 5

Applied Collision Repair 1

Instruction includes live shop repairs, body panel repair/replacement and refinishing/blending on modern vehicles. Non-continuing/current students will be required to schedule and pass a hands-on competency test before the start date of the semester. Schedule with a counselor. Prerequisite(s): Complete AUTOBY-300, AUTOBY-301, AUTOBY-302, AUTOBY-303 and AUTOBY-305. Must be admitted to the Auto Collision Repair and Finish Technician program (31-405-1). Completion of or currently enrolled in AUTOBY-315.

AUTOBY-317 Credits: 2

Frame Measuring and Setup

Students become familiar with frame and unibody construction, tools and equipment through lectures and demonstrations of straightening techniques on damaged automobiles using dedicated and universal bench measuring systems and conventional equipment. Shop safety is emphasized. Prerequisite(s): Complete AUTOBY-300, AUTOBY-301, AUTOBY-302, AUTOBY-303 and AUTOBY-305. Must be admitted to the Auto Collision Repair and Finish Technician program (31-405-1). Completion of or currently enrolled in AUTOBY-313, AUTOBY-315 and AUTOBY-316.

AUTOBY-322 Credits: 4

Sheet Metal Correction and Fundamentals

The fundamentals of auto body safety regulations, damage analysis, unibody construction, and component alignment, plastic filler application, welding and dinging sheet metal damage are studied. Discussion, lectures and demonstrations pertain to these areas of auto body repair. Prerequisite(s): Must be concurrently enrolled in AUTOBY-301, AUTOBY-302, AUTOBY-303 and AUTOBY-305.

AUTOBY-323 Credits: 1

Estimating and Damage Analysis

This course provides the opportunity for the learner to develop skills in auto body construction, model identification, damage analysis, parts sources, handwritten damage reports, computerized damage reports and removal/installation of bolted on panels. Prerequisite(s): When registering for this course, students must also be registered in AUTOBY-322, AUTOBY-301, AUTOBY-325 and AUTOBY-326.

AUTOBY-325 Credits: 2

Refinishing 1 and Personal Safety

In this course, learners prepare surfaces to be refinished by utilizing cleaning and sanding while protecting non-refinish areas of the vehicle from overspray and component damage. Existing finish defect and substrate assessment along with primer product choices, buffing, polishing, and inspection for final delivery are also introduced. When registering for this course, students must also be registered in AUTOBY-300, AUTOBY-322, AUTOBY-323 and AUTOBY-305.

AUTOBY-326 Credits: 4

Sheet Metal Correction and Refinishing 2

Techniques of auto body repair are presented including safety regulations, damage analysis, unibody construction, plastic filler application, welding and dinging sheet metal damage. Practical lab exercises are performed on lab mock-ups. Prerequisite(s): When registering for this course, students must also be registered in AUTOBY-322, AUTOBY-301, AUTOBY-323 and AUTOBY-325.

AVITEC – BAKING

AVITEC – Aviation (Department 486)

AVITEC-167 Credits: 3 Composite Structures

The aircraft composite structure is separated into subassemblies and their related parts. Aircraft woods and fabric coverings are identified and repaired. Major emphasis is given to the maintenance and repair of composite structures and aircraft finishes.

AVITEC-302 Credits: 2 Engine Fuel Metering Systems

Training is provided in the servicing of various types of fuel supply and fuel metering systems. Skills are developed in overhauling, assembling and testing of fuel system components.

AVITEC-303 Credits: 5 Powerplant Electrical and Instrument Systems

Skills are developed in the removal, disassembly, inspection, overhaul, installation, adjustment and systematic troubleshooting of the complete power plant ignition and electrical systems. Equipment manufacturers' service recommendations are stressed in the overhaul of electrical components.

AVITEC-304 Credits: 1 Aircraft Induction and Supercharging Systems

Training is provided in the servicing of various types of fuel supply and fuel distribution systems. Skills are developed in overhauling, assembling and testing of fuel distribution system components.

AVITEC-306 Credits: 2 Engine Lubricating Systems

The construction, function, operating principles and relationship of a complete engine lubrication system to the basic engine are emphasized.

AVITEC-315 Credits: 2 Aircraft Reciprocating Engines 1

Skills are developed and instructions given in the removal, disassembly, cleaning, inspection, repair, assembly, installation, testing and troubleshooting of aircraft engines. Emphasis is placed upon the correct application and use of engine servicing.

AVITEC-316 Credits: 4 Aircraft Reciprocating Engines 2

Students continue the development of skills and knowledge gained in Aircraft Reciprocating Engines 1. Prerequisite(s): Complete AVITEC-315.

AVITEC-318 Credits: 2 Aircraft Gas Turbine Engines 1

Training is given in the correct procedures and practices involved in the overhaul, inspection, maintenance, operation, testing, troubleshooting and servicing of gas turbine engines and their related accessory systems.

AVITEC-319 Credits: 5 Aircraft Gas Turbine Engines 2

Students continue the development of skills and knowledge gained in Aircraft Gas Turbine Engines 1. Prerequisite(s): Complete AVITEC-318.

AVITEC-320 Credits: 4 Aircraft Electrical Systems

Instruction affords students an opportunity to apply basic electrical principles to problems encountered in the electrical servicing of airframes. Typical jobs performed are construction of simple/complex circuits and using test equipment to check them.

AVITEC-323 Credits: 3 Aircraft Ground Operation and Servicing

Students learn proper procedures for fueling, moving and securing aircraft. Also studied are proper cleaning and corrosion-control methods for aircraft.

AVITEC-340 Credits: 1 Aircraft Welding

Students study the various welding processes used to fabricate and repair aircraft parts. They also learn to silver solder, braze and weld aluminum and stainless steel used in aircraft.

AVITEC-360 Credits: 2 Propeller Systems

Training is provided in the removal, installation, routine inspection and maintenance of wood and metal propellers. Causes for rejection of wood and metal propeller types are explained, with attention given to FAA and manufacturers' publications.

AVITEC-368 Credits: 3 Aircraft Structures

The aircraft structure is separated into subassemblies and their related parts. Major emphasis is given to the maintenance and repair of sheet metal structures.

AVITEC-370 Credits: 5 Aircraft Instrument, Control and Warning Systems 1

The construction, operation and installation of the instruments present in aircraft are studied. Students then apply the knowledge of theory and operation of instruments to the typical jobs included in routine line maintenance.

AVITEC-371 Credits: 1 Aircraft Instrument, Control and Warning Systems 2

Students apply knowledge of theory and operation of instruments to typical jobs included in routine line maintenance. Prerequisite(s): Complete AVITEC-370.

AVITEC-372 Credits: 4 Hydraulic and Pneumatic Power Systems

The principles of aircraft hydraulic and pneumatic systems are explained. The operation of hydraulic and pneumatic landing gear systems, as well as wing flap systems, is

stressed. The construction and servicing of landing gear wheels, brakes, tires, shock struts and auxiliary wheels are emphasized.

AVITEC-376 Credits: 4 Airframe Maintenance

The methods and techniques of airframe assembly and disassembly are explained. The student learns to select and use FAA and manufacturers' aircraft maintenance specifications, data sheets, manuals and publications, and related federal aviation regulations.

AVITEC-380 Credits: 1 Basic Physics

The basic principles of simple machines, heat, sound and fluids are presented and applied to aircraft systems. Additionally, the theory of flight as applied to both fixed and rotary wing aircraft is studied.

AVITEC-381 Credits: 3 Basic Electricity

The basic principles of DC and AC electricity are presented and applied to aircraft systems. Topics include electron theory, sources of electricity, and measurement of current, voltage, resistance, and power.

AVITEC-382 Credits: 3 Aircraft Materials and Their Inspection

Emphasis is placed on the properties of materials used on aircraft and on their inspection. Also discussed are the various types of fasteners used. Time is also spent on fluid lines and fittings.

AVITEC-383 Credits: 1 Aircraft Maintenance Publications, Records and Mechanics Regulations

The student studies the various federal air regulations that pertain to aviation mechanics and aircraft maintenance and also learn the proper forms and methods of entry for aircraft records.

AVITEC-393 Credits: 2 Mathematics for Aviation Technicians

Students are given the mathematical skills necessary to successfully perform mechanic duties. Topics covered include roots, powers, exponents, areas, volumes, ratios, proportions, percentages, displacements and algebraic operations.

BADM – Business Administration (Department 102)

BADM-104 Credits: 3 Business Statistics

A general study will be discussed to interpret areas related to statistics in the business world. Topics include the interpretation and construction of statistical tables and charts, finding the best estimator of a population (including central values and measures of dispersion), normal distributions, sampling, hypothesis test, probabilities, six-sigma concepts utilized in quality control, and linear regression and correlations. The use of statistical software to facilitate will be discussed.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

Prerequisite(s): Complete BADM-106. Complete RBUS-102, MATH-107, MATH-123 or any 200-level MATH courses.

BADM-106 Credits: 3

MS Office for Business Applications

This course provides hands-on training in Microsoft Office. The focus will be on the business application for Windows, Excel, Word and PowerPoint. There will be a special emphasis on the use of Excel tools in business.

BADM-110 Credits: 3

Business Communications With Technology

This course is designed to prepare students to communicate effectively in the digital age. Students will learn the various digital tools that are being used in business communication and collaboration today. Students will demonstrate basic writing skills and grammar in the preparation of effective communications using the various digital communication tools available. Tools will include email, Facebook, instant messaging, internet resources, LinkedIn and various other online communication tools. Students will also demonstrate effective presentation skills that utilize visual aids and digital tools.

BADM-120 Credits: 3

Business Analysis

An entry-level course designed to introduce students to the tools used in business for financial analysis. Business Analysis provides the students with the basics of ratio analysis, time value of money, risk analysis, capital budget evaluation and financial statement analysis. Prerequisite(s): Complete BADM-106 and complete either ACCTG-110 or ACCTG-111.

BADM-126 Credits: 3

Business Finance

Primary emphasis is on the role of the financial manager. Special attention is given to ratio and financial statement analysis. The topics of budgeting, working capital management, leverage and short- and long-term financing are also covered. Prerequisite(s): Complete ACCTG-110 or ACCTG-111, and complete BADM-106 or ACCTG-122.

BADM-134 Credits: 3

Business Organization and Management

An introduction to business, focusing on a basic understanding of the activities, functions and principles of business enterprises. This course covers the responsibilities and challenges of operating a business. The emphasis is on human relations, management, marketing, finance, labor, franchising, forms of ownership and careers.

BADM-145 Credits: 3

Small Business Management

A concise examination is made of all phases of managing a small business and isolating significant problems for solution. Specific problems of the small business firm, such as financing, developing, staffing, etc., are considered and analyzed. Prerequisite(s): Complete BADM-134 or MKTG-102.

BADM-155 Credits: 3

Management Principles

A comprehensive overview of the functions and principles of management that lead to success in the operating climate of the new millennium. Prerequisite(s): Complete BADM-134, BADM-126 or HEALTH-104.

BADM-165 Credits: 3

Legal Environment of Business

The course presents the legal concepts governing the conduct of business in the United States from a managerial perspective including contracts, torts, agency and government regulations. The course is designed to provide students with an understanding of the legal process as it applies to managerial and other business problems. As legal rules frequently change, the emphasis will be on developing independent critical thinking skills.

BADM-192 Credits: 3

Risk Management and Insurance

This course provides an introduction to managing risks in order to maximize the value of a firm. An examination of the types of business loss exposures and their management, with a primary emphasis on insurance, are discussed in an applied approach.

BAKING – Baking (Department 314)

BAKING-101 Credits: 3

Specialty Baking and Pastry Techniques 1

This course involves learning techniques such as the preparation of various tart doughs, laminated doughs, pate a choux, sponges, custards, ganache, meringues and holiday specialties. Students use these skills to prepare plated desserts with appropriate garnishes and sauces. Proper use and care of equipment together with sanitation are emphasized. Prerequisite(s): Complete BAKING-120, BAKING-122, CULART-118, CULMGT-112 and CULART-100.

BAKING-107 Credits: 5

Cafe Operations

The Cafe Operations course is designed for students to learn techniques for the operation of a modern cafe/bistro in a hands-on working environment. Training will include the areas of barista, preparation of breakfast pastries, preparation of soups and stocks, front-of-the-house, operation of point-of-sale software system, cashier, and customer service. Emphasis will be on the complete operation of a business. Prerequisite(s): Complete BAKING-108, BAKING-113, BAKING-131, CULART-109, CULART-116, CULART-122 and CULMGT-105.

BAKING-108 Credits: 2

Hotel and Restaurant Dessert Production

This course covers the preparation and service of hot and cold desserts with focus on individual desserts, a la minute preparations and numerous components within one preparation. Students will learn station organization, timing and service coordination for restaurant dessert production. Products made will include frozen desserts, ice cream, sorbet, glazes, individual

plated desserts, and desserts for functions and banquets. During the course, students will develop a dessert menu from the perspective of variety, costs, practicality and how well it matches the rest of the menu. Prerequisite(s): Complete BAKING-101, BAKING-120, BAKING-122, BAKING-125, BAKING-129, BAKING-130, BAKING-131, CULMGT-105, CULMGT-112, CULART-118 and CULART-100.

BAKING-113 Credits: 3

Cake Decorating, Icing and Fondant

This course is designed to give students an introduction to the fundamental components of cake construction, and it covers basic and advanced decorating techniques that are relevant to the current industry trends. The students gain experience working with a variety of decorating mediums and learn the different options for icings, fillings and sponges. Students learn extensively about buttercream and fondant techniques including borders, scrolling, flowers, and how to properly ice and stack cakes with the proper support. Students will also learn how to interact with a client by completing a mock presentation that demonstrates the planning process of an event theme and writing a contract. Prerequisite(s): Complete BAKING-101, BAKING-108, BAKING-120, BAKING-122, BAKING-125, BAKING-129, BAKING-130, CULMGT-112, CULART-118 and CULART-100.

BAKING-120 Credits: 3

Basic Baking Techniques

This course introduces students to the fundamental concepts, skills and techniques of basic baking including cookies and bars, pies, doughnuts, quick breads and yeast dough production. Study of ingredient functions, production identification and weights. Prerequisite(s): Completion of or currently enrolled in CULMGT-112 and BAKING-122.

BAKING-122 Credits: 3

Baking Principles/Ingredient Functions

In this class, instructors will focus on the primary functions of ingredients in baked goods, with an emphasis on yeast-raised dough, sponge dough, straight dough and modified straight dough methods. Students are exposed to chemical, physical and biological leavening principles, as well as the understanding of the characteristics and functions of baking ingredients. Students will study formulas that work on scientific principles and their outcomes.

BAKING-125 Credits: 3

Artisan Breads

In this course, you will discover the fine science of bread. You will explore and learn about the reaction of yeast, air and liquid combining to become a living substance. You will be introduced to the characteristics and functions of flour, and investigate the effects of flour on flavor, texture and the structures of well-known, classical and artisan breads. These include baguettes, sourdoughs, wheat epi, pumpernickel, focaccia, rye and ciabatta. Prerequisite(s): Complete BAKING-120, BAKING-122, CULMGT-112, CULART-100 and CULART-118.

BAKING – BAS

BAKING-127 Credits: 3

Chocolate, Confections and Sugar Work

This course introduces students to the principles involved in producing a full range of chocolates and candies using a variety of centers including marzipan, ganache, gianduja sugar centers and jellies. Students learn to use both traditional and contemporary production methods in creating confections by hand and with special equipment. The class includes an introduction to the art of sugar work. Students will learn to properly cook, pour, pull and blow sugar to create artistic showpieces. Design layout, and color issues will also be covered. Prerequisite(s): Complete BAKING-101, BAKING-108, BAKING-113, BAKING-120, BAKING-125, BAKING-129, BAKING-130, BAKING-131, CULMGT-112 and CULMGT-105.

BAKING-129 Credits: 2

Healthy and Natural Baking

This course studies techniques and diets such as gluten-free, reduced sugar, reduced fat, vegetarian and vegan. Students will be able to give a verbal evaluation regarding their finished product, explaining what its components are, how it was prepared, and the motivation behind its construction. Basic nutrition principles are reviewed to help students understand healthy baking. Prerequisite(s): Complete BAKING-101, BAKING-120, BAKING-122, BAKING-125, CULMGT-112, CULART-118 and CULART-100.

BAKING-130 Credits: 1

Field Experience in Baking and Pastry Art

Students work 192 hours as regular employees in baking and pastry arts. The goal of field experience is to give students the opportunity to apply, on the job, the skills learned in the classroom and lab and obtain a broad overview of an entire facility. Prerequisite(s): Complete INTRN-796 with minimum grade of C.

BAKING-131 Credits: 2

Baking and Classical Cakes

A review of creaming, foaming and blending techniques with an emphasis on preparing simple to complex unfilled cakes, filled cakes and tortes. Topics to be covered include comparison of classical and modern preparations, classical cakes (such as gateaux, St. Honore, Doosh Torte, Linzer Torte and Sacher Torte), glazed, iced, molded and cream filled cakes, tortes, and bombes. Prerequisite(s): Complete BAKING-101, BAKING-108, BAKING-120, BAKING-122, BAKING-125, BAKING-130, CULMGT-112, CULART-100 and CULART-118.

BAKING-135 Credits: 3

Baking for Culinariums

This course is an overview of baking and pastry for culinary students. Students become familiar with baking ingredients, their properties and the way in which to scale and measure them. Producing everything from breads and rolls to cakes and pastries, students gain an appreciation for the contributions made by bakers and pastry chefs in food service settings. Fundamental culinary principles covered include teamwork,

professionalism, timing and organization, and safety and sanitation. Prerequisite(s): Complete CULMGT-112.

BARBER – Barber/Barbering (Department 502)

BARBER-318 Credits: 1

Advanced Barber Theory

This course presents the theory related to practical subjects: men's hair replacement methods and hair goods, electricity and light therapy. Students participate in small and large group activities, in class, and internet assignments. Prerequisite(s): Must be enrolled in the Barber program (31-502-5).

BARBER-322 Credits: 1

Intermediate Barber Guest Services

This course offers opportunities for professional practice of developing skills in a salonlike environment. Students shampoo, cut, condition, color, roller set, blow dry/iron curl, thermal press, permanent wave, and relax client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

BARBER-336 Credits: 1

Introduction to Barber Theory

Presents the theory in sterilization, sanitation, disinfection, laws and rules, and professional ethics as it relates to the barber profession. Students admitted in individual, group and online activities. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

BARBER-337 Credits: 2

Introduction to Barber Haircutting

Introduces basic fundamentals and related theory of core barber haircutting skills, including the proper use and care of cutting equipment. Students practice on mannequins and models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

BARBER-338 Credits: 1

Barber Chemical Relaxing

Presents techniques for relaxing and texturizing naturally curly hair. Retouch, virgin, and freehand applications are stressed. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

BARBER-341 Credits: 2

Shaving/Facials

Introduces the theory and practical skills of male facials and shaving with a straight-edge razor. Proper technique and safety are stressed. Students practice on mannequins, classmates, and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

BARBER-344 Credits: 1

Intermediate Barber Theory

Presents theory related to wet and thermal styling, permanent waving, relaxing and tinting.

Client consultation is also covered. Students participate in individual, group and online activities. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

BARBER-345 Credits: 2

Intermediate Barber Haircut

Students enhance skills learned in BARBER-337. Beard trimming and razor haircutting is introduced, and speed and efficiency are encouraged. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300 and BARCOS-336.

BARBER-346 Credits: 1

Barber Permanent Waving

Introduces wrapping and application procedures for the permanent wave service. Students practice sectioning and winding permanent rods on mannequins. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300 and BARCOS-336.

BARBER-347 Credits: 1

Introduction to Barber Hairstyling

Presents various techniques for basic thermal styling using the blow dryer, curling iron and flat iron. Proper parting and sectioning are stressed. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5).

BARBER-348 Credits: 2

Introduction to Barber Guest Services

Introduces students to the barbering/stylist environment. Students practice barbering skills under the guidance of a licensed instructor. Receptionist duties, people skills, and professionalism are also studied. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300, BARBER-336, BARBER-347, BARCOS-341, and BARBER-337.

BARBER-349 Credits: 1

Advanced Barber Haircutting

Students hone skills previously learned in barber haircut courses. Clipper designs, afros, fauxhawks, and current trends are also covered. Students practice on mannequins, classmates, and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARBER-348 and BARBER-345.

BARBER-350 Credits: 2

Barber Chemical Services 3

Introduces various application procedures for oxidative and non-oxidative tints. Highlighting and bleaching techniques are also covered. Students practice on mannequins and available models. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300, BARBER-336, BARBER-338, BARBER-346 and BARBER-344.

BARBER-351 Credits: 1

Advanced Barber Hairstyle

Students enhance skills learned in Barber Hairstyling I. Wet styling techniques are also introduced. Students practice roller sets,

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

pin curls and finger waves on mannequins. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARCOS-300, BARBER-336 and BARBER-347.

BARBER-352 Credits: 2 **Barber State Board Review**

Presents a review of the theory and practical skills acquired throughout the program. Prepares students for successful completion of the Wisconsin professional licensing exam. Students pack an exam kit, take a mock practical exam, and complete a final theory exam. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARBER-318, BARCOS-319, BARBER-322, BARBER-349, BARBER-350, and BARBER-351.

BARBER-353 Credits: 2 **Barber Externship**

This course reviews haircutting techniques learned in previous Barber haircutting courses. Students prepare mannequins for the state board exam. Students practice skills on available models and mannequins. Speed and efficiency are stressed. Prerequisite(s): Must be admitted to the Barber program (31-502-5). Complete BARBER-349, BARBER-322 and BARBER-350.

BARBER-354 Credits: 1 **Advanced Barber Guest Services**

This course offers opportunities for professional practice of developing skills in a salonlike environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax the client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Must be admitted to the Barbering program (31-502-5). Complete BARBER-322, BARBER-349, BARCOS-319, BARBER-350, and BARBER-318.

BARCOS – Barber/ Cosmetology (Department 502)

BARCOS-300 Credits: 2 **Shampoo and Scalp Treatments**

Presents the theory of and practical skills in hair/scalp cleansing techniques, scalp massage therapy, and professional products for various hair and scalp conditions, including hair pieces and goods. Students practice shampooing, massage, and conditioning techniques during class on classmates and hair goods. Prerequisite(s): Must be admitted to the Cosmetology (31-502-1) or Barber (31-502-5) programs.

BARCOS-319 Credits: 1 **Natural Hair Care and Braiding**

Students learn how to care for natural, curly/ extremely curly textured hair, the history of African hair braiding and basic braiding techniques, and apply skills learned on mannequins and available models Prerequisite(s): Must be admitted to either the Barber (31-502-5) or Cosmetology (31-502-1) programs.

BARCOS-324 Credits: 1

Business Skills for Barber/Cosmetologists

Introduces verbal and nonverbal communication concepts with emphasis on professional writing and speaking skill development. Students write a resume, make presentations, practice job interviewing and make positive public contacts. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

BARCOS-330 Credits: 2

Business Management Skills for Barber/ Cosmetologists

Introduces the fundamental knowledge required for lawful and effective salon practice and management, including Wisconsin state laws and regulatory rules. Students practice developing skills in large and small group work. Prerequisite(s): Must be admitted to the Cosmetology (31-502-1) or the Barber (31-502-5) programs. Complete BARCOS-324.

BARCOS-332 Credits: 3

Communications – Barber/Cosmetology Manager

This course offers Wisconsin-licensed practitioners, nail technicians and aestheticians leadership and supervision concepts and training principles. Students practice applying concepts in small and large group activities, i.e., discussions, case studies, and hypothetical professional salon settings. Prerequisite(s): Complete BARCOS-331.

BARCOS-333 Credits: 3

Barber/Cosmetology Instructor Techniques Part 1

This course is designed to develop the knowledge and skills required to teach barbering and cosmetology. It covers the following: communication, adult learning styles, developing lesson plans and presentation styles, using audio-visual equipment, and questioning techniques. Emphasis is placed on the development and presentation of state board lesson plans, as well as time outside of course hours for classroom observation. Prerequisite(s): Must have valid Wisconsin Barber/Cosmetology practitioner's license and basic computer skills.

BARCOS-334 Credits: 3

Barber/Cosmetologist Instructor Techniques Part 2

Instruction focuses on development of evaluation tools for classroom use, analyzing and development of classroom management techniques, the use of copyright laws in developing educational material, and writing a resume and cover letter. The safe use of products and chemicals used in the industry/classroom is studied and stressed. The student will develop theory and practical lesson plans to present in the classroom under the supervision of a licensed instructor. Prerequisite(s): Complete BARCOS-333.

BAS – Building Automated Systems (Department 481)

BAS-140 Credits: 3

Building Systems 1

Course examines mechanical building systems and operations related to heating, ventilation, air conditioning equipment and water systems. Course learning outcomes shall apply HVAC systems to controlling building environments. Learners will gain knowledge and skills of systems and controls which create a healthy and productive environment in commercial and industrial buildings.

BAS-141 Credits: 2

Building Systems 2

Course examines building lighting, alarms, security, network access and building envelope systems. Learners will apply course concepts to the JCI Metasys System extended architecture for managing building operations.

BAS-142 Credits: 1

Measurement and Verification for Automated

Course examines the benefits of performing measurement and verification; as well as testing procedures, tools and equipment, instrumentation used and how to interpret data. Learners will explore different methods of measuring and verifying energy savings using the International Performance Measurement and Verification Protocols (IPMVP). Learning outcomes include hands-on experience using kWh meters, energy management systems and data loggers. Concepts will be applied to the process of verifying that energy management projects are working. Course reinforces documentation, communication, project management and computer skills including word processing and spreadsheets.

BAS-143 Credits: 2

Electrical Concepts/Control 1 ABS

Learners will explore how to apply basic electrical concepts to building automated systems control. Course examines basic electrical theories, electrical symbols, line and ladder diagrams, wiring schematics, DC and AC circuits, and applies these to building automated systems control. Control theories will be applied to job duties and tasks performed on building automated systems.

BAS-144 Credits: 2

Control Theory 2

Course builds upon the electrical concepts learned in Control Theory 1 and examines control systems used in heating, ventilation and air conditioning systems. Learning outcomes include control system submittals, sequence of operations, system architecture, control languages and commissioning controls. Control theories will be applied to both HVAC and water systems. Learners will apply course concepts to the JCI Metasys System extended architecture for managing building operations. Prerequisite(s): Complete BAS-143.

BAS – BNLST

BAS-145 **Credits: 2**

Control Theory 3

Course examines control theories for DOC technologies, lighting, alarms, security and building envelope technologies used in various automated systems. Programmable controls and graphical interfaces will be introduced. Hands-on learning lab simulations will build skills and help apply concepts to job duties and tasks. Prerequisite(s): Complete BAS-143 and BAS-144.

BAS-148 **Credits: 4**

Automated Building Control Systems

Course examines JCI Metasys, IVUE Carrier and Trane Tracer building automated control system technologies. Learners will compare systems and apply concepts to managing automated building control systems. Hands-on learning lab for the Metasys System will help learners build skills in writing, revising and verifying programs. Prerequisite(s): Complete BAS-140, BAS-141, BAS-142, BAS-143, BAS-144 and BAS-150.

BAS-149 **Credits: 4**

Networking Automated Building Systems

Course examines servers, network servers and other programs; virtual area networks; wireless controls; and building automatic control networks (BACNET) and LON system architectures.

BAS-150 **Credits: 2**

Energy Auditing

Learning outcomes include exploring the process and requirements for completing an energy audit, examining the ASHRAE levels of audits, and relating these to the job duties and tasks performed for building automated control systems. Learners will complete an ASHRAE Level I energy audit project as a foundation for developing skills needed for automated building systems related careers.

BAS-151 **Credits: 2**

Commissioning

Course explores commissioning-related job duties and tasks involved in starting-up new automated building systems and controls. Course learning outcomes include applying the commissioning process to automated building systems, examining commissioning related roles and responsibilities, exploring the benefits of commissioning and how these relate to energy management, using functional performance testing (FPT) and construction checklists in the commissioning process.

BAS-153 **Credits: 1**

ABS Capstone Project Course

Course provides a capstone project for automated building systems control. Learners will identify, plan and execute a project in one of the following areas: energy auditing, commissioning, fire/security systems, controls technologies or systems technologies. Strategies for training owners and operators will also be explored. Other capstone projects may be done with

pre-approval by the department. In addition, an optional industry-based internship may be substituted in lieu of a project. Prerequisite(s): Complete BAS-150.

BIOSCI – Biological Science (Department 806)

BIOSCI-177 **Credits: 4**

General Anatomy and Physiology

This course examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare healthcare professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision-making and professional communication with colleagues and patients. (This course also provides the foundation to, and is a prerequisite for, BIOSCI-179.) Prerequisite(s): Two semesters of high school chemistry or one semester of college chemistry with minimum grade of C. Completion of or currently enrolled in ENG-195 or ENG-201.

BIOSCI-179 **Credits: 4**

Advanced Anatomy and Physiology

Advanced Anatomy and Physiology is the second semester in a two semester sequence in which normal human anatomy and physiology are studied using a body systems approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instructional delivery within a classroom and laboratory setting. Experimentation within a science lab will include analysis of cellular metabolism, the individual components of body systems such as the nervous, neuromuscular, cardiovascular and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood. Integration of genetics to human reproduction and development are also included in this course. Prerequisite(s): Complete BIOSCI 177 with minimum grade of C.

BIOSCI-189 **Credits: 3**

Basic Anatomy

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

BIOSCI-197 **Credits: 4**

Microbiology

Examines microbial structure, metabolism, genetics, growth and the relationship between humans and microorganisms. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry and biotechnology. Prerequisite(s): Complete BIOSCI-177 or BIOSCI-201 with minimum grade of C.

BIOSCI-201 **Credits: 4**

Anatomy and Physiology 1

This is a general course presenting unifying concepts critical to a basic understanding of the human body. Lectures and laboratory studies use models and dissection of specimens to present integumentary, skeletal, muscular, nervous and endocrine systems. Prerequisite(s): Biology or chemistry and English. Biology may be satisfied with one year of high school biology or one semester of college biology. Chemistry may be satisfied with one year high school of chemistry or one semester of college chemistry with minimum grade of C. Completion of or currently enrolled in ENG-195 or ENG-201.

BIOSCI-202 **Credits: 4**

Anatomy and Physiology 2

The cardiovascular, respiratory, digestive, urinary and reproductive systems are studied, utilizing lecture and laboratory procedures to complete the study of the anatomy and physiology of the human body. Prerequisite(s): Complete BIOSCI-201 with minimum grade of C.

BIOSCI-220 **Credits: 3**

Introduction to Nutritional Science

This course is an introductory experience in human nutrition. It is designed to satisfy basic nutritional course requirements for college students entering allied health programs and provide practical and interesting nutritional information for non-health majors as well. This course provides correct, scientifically based information needed to answer basic questions related to nutrition.

BIOSCI-230 **Credits: 1**

Introduction to Nutrition Lab

This course is a complementary laboratory course to BIOSCI-220, which offers an introductory experience in human nutrition. This course offers a laboratory experience to complement the basics of nutrition. The concepts covered in the lecture course are explored in greater detail during the lab time using a variety of activities including food experiments, anthropometric measurement, and nutrient analysis and enhanced problem sets.

BIOSCI-236 **Credits: 5**

Principles of Biology

This course provides an introduction to the organization of living organisms at the molecular, cellular, organism and ecological levels. Biological principles of inheritance, cytology and metabolism of plants, animals and other organisms will be studied. In addition, an overview of the major organ systems of the human body will be included. Prerequisite(s): Complete ENG-195 or ENG-201 with minimum grade of C.

BIOSCI-241 **Credits: 4**

Pathophysiology

Pathophysiology provides students with an understanding of the relationship between the mechanisms of disease and normal physiology. Topics include alterations in cellular and genetic

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mechanisms, metabolic abnormalities, fluid and electrolyte imbalance, infection, immunology and cardiovascular, gastrointestinal, respiratory and neuromuscular dysfunctions. Prerequisite(s): Complete two semesters of college anatomy and physiology, BIOSCI-177 and BIOSCI-179 or BIOSCI-201 and BIOSCI-202 with minimum grade of C.

BIOSCI-242 Credits: 4 **Concepts of Science in Health**

The focus of this course is to provide a basic understanding of the most recent, scientifically based, personal health information such as aging, stroke, cancer, chemical dependency, nutrition, environmental pollution and weight control. Participants analyze their own health-related behaviors and attitudes and are provided with the concepts needed to improve health and well-being.

BIOSCI-257 Credits: 4 **Biology I**

This course is the first of a two-course series. This course covers chemistry as it pertains to biology, biochemical principles, cell biology, metabolism, cellular energy, genetics, molecular biology, evolution, and ecology. Prerequisite(s): Complete either CHEM-207 and CHEM-211.

BIOSCI-258 Credits: 4 **Biology II**

This course is the second of a two course series. This course covers a survey of organisms including viruses, bacteria, protist, fungi, plants and animals. It will also cover organ systems biology in animals and specifically in humans. Prerequisite(s): Complete BIOSCI-257.

BIOSCI-259 Credits: 2 **Genetics and Genomics**

Genetics and genomics are issues that affect individuals throughout their lifespan. These topics will gain even more importance as we learn more about the genetic basis of medical conditions. Therefore, anyone involved in healthcare will need an understanding about the social, ethical and legal issues of genetics and genomics as well as their underlying scientific principles. This course provides an overview of genetics and genomics while exploring the implications of these topics on the healthcare setting. The first part of the course concentrates on the basics of genetics and the science behind heritable characteristics. The course goes on to discuss the implications of genomics, concluding with an investigation of the social, ethical and legal issues of genetic technology (cloning for medical and reproductive purposes, genetically modified organisms, or GMOs, and who owns genetic information. Prerequisite(s): Complete one of the following courses: BIOSCI-177, CHEM-186, BIOSCI-202 or CHEM-208.

BIOSCI-260 Credits: 3 **Plagues, People, and Power**

This course covers the history of infectious diseases and their impact on human society as well as how human activities have contributed to infectious disease outbreaks. It also examines the potential future impact of infectious

diseases. Topics to be covered include historical diseases, emerging and re-emerging infectious diseases and biological weapons. Prerequisite(s): Complete ENG-195 or ENG-201 with minimum grade of C or a satisfactory MATC placement test score.

BIOSCI-261 Credits: 3 **Introduction to Pharmacology**

This course introduces the nature of drugs and their mechanisms of action by examining basic concepts on how drugs interact with the human body (pharmacokinetics) and on how the human body alters the effects of drugs (pharmacodynamics). Emphasis is placed on drugs affecting the nervous system, which includes but is not limited to: CNS depressants, CNS stimulants, hallucinogens, narcotic analgesics, sedatives, and autonomic drugs. Along with a few laboratory exercises, this course is designed to have a broad appeal to many science and nonscience majors. The course allows for a review of key topics in general biology, chemistry, anatomy, and physiology that supports the study of pharmacology.

BIOSCI-269 Credits: 1 **Genetic and Genomics Lab**

Genetics and genomics are issues that affect individuals throughout their lifespan. These topics will gain even more importance as we learn more about the genetic basis of medical conditions. Therefore, anyone involved in healthcare will need an understanding about the social, ethical and legal issues of genetics and genomics as well as their underlying scientific principles. This course is an adjunct to BIOSCI-259 (a two-credit lecture course that provides an overview of genetics and genomics while exploring the implications of these topics on the healthcare setting). This lab course would provide the students with the laboratory component of the technologies discussed in BIOSCI-259. Taken together, the two courses would be the equivalent of a three-credit science class with a lab.

BIOSCI-280 Credits: 3 **Applied Nutrition**

Applied Nutrition is a three-credit nutrition class for future health professionals or students who would like to get more education in nutrition and how it affects our health. Topics discussed will include life cycle nutrition and how diet affects the physiology of the body, metabolism, weight management, and food choices and the development of chronic diseases (diabetes, cancer, autoimmune diseases, etc.). Prerequisite(s): Complete either BIOSCI-201 or CHEM-207.

BNLST – Business Analyst (Department 102)

BNLST-121 Credits: 3 **Business Analyst Planning and Monitoring**

Instruction in the multiple approaches used for performing business analysis, planning activities and ongoing communication, defining scopes, process improvements, assumptions, constraints, and dependencies, and the management process.

BNLST-122 Credits: 3 **Business Analyst Essentials**

Provides insight into the business analyst role and profession. Examines career pathways, key concepts, and the underlying competencies describing the behaviors, characteristics, knowledge, and personal qualities that support the practice of business analysis. Students will also be introduced to the Business Analysis Body of Knowledge Guide (BABOK).

BNLST-123 Credits: 3 **Requirements Life Cycle Management**

Prioritize and trace requirements; organize large amounts of data; understand and model requirements using various analysis techniques; and verify, validate and communicate the requirements.

BNLST-124 Credits: 3 **Elicitation Techniques**

Examines one of the five Business Analysis Perspectives (Business Intelligence) and the tasks associated with obtaining information from stakeholders (elicitation), confirming the results, and communicating business analysis information with stakeholders. Introduces the business analysis elicitation techniques of surveys, interviews, observation, workshops, benchmarking and market analysis.

BNLST-127 Credits: 3 **Requirements Analysis and Design**

Explores the key tasks of Requirements Analysis and Design that business analysts perform to structure and organize requirements discovered during the elicitation activity. Tasks include specifying and modeling requirements/designs, verifying and validating information, defining requirements architecture, defining solution options that meet business needs, and estimating potential value for those solution options. Introduces techniques of use-cases, prototyping, non-functional requirements analysis and acceptance and evaluation criteria. Students will also explore the final perspective of business architecture.

BNLST-135 Credits: 3 **Business Analyst Strategy Analyst**

Identify and define business needs; understand business structure, strategy, and impact of work efforts; define the importance of vision, strategy, goals and objectives; and define solution scope. Effectively facilitate change management.

BNLST-136 Credits: 3 **Business Analyst Solution Evaluation**

Students assess organizational readiness by facilitating testing and training of the solution. Emphasizes test plan creation, execution and facilitation as well as the development of training plans. Prerequisite(s): Complete BNLST-127.

BNLST-137 Credits: 1 **Business Analyst Internship**

A cooperative training program involving actual work experience. Students obtain a position at an approved workstation and work under the supervision of a teacher/coordinator. Prerequisite(s): Complete INTRN-796.

BNLST – CHEM

BNLST-138 Credits: 3

Business Analyst Capstone

This course provides business analyst students the opportunity to integrate the knowledge they have obtained throughout their curriculum by demonstrating their proficiency during the entire life cycle of a project.

BRHLTH – Business Related Health (Department 160)

BRHLTH-112 Credits: 3

Computerized Medical Billing

This course introduces students to principles of computerized medical billing using medical office software. Students must possess medical terminology and accounting competencies. Prerequisite(s): Complete OFTECH-104. Completion of or currently enrolled in BRHLTH-125 and BRHLTH-170.

BRHLTH-124 Credits: 3

Medical Office Terminology 1

This course presents the principles of medical word construction; emphasizes correct medical word spelling, pronunciation and definition; and introduces terminology specific to various body systems.

BRHLTH-125 Credits: 3

Medical Office Terminology 2

This course reinforces correct medical word spelling, pronunciation and definition as studied in BRHLTH-124. Additional terminology specific to various body systems is introduced. Prerequisite(s): Complete BRHLTH-124 with minimum grade of C.

BRHLTH-135 Credits: 3

Medical Document Production

This course is designed to expand the students' medical vocabulary and further develop their skills in keyboarding, transcribing, formatting, and editing of researched, dictated, and handwritten medical documents. Emphasis is placed on term building and medical accuracy. Prerequisite(s): Complete OFTECH-122 and BRHLTH-125. Completion of or currently enrolled in OFTECH-133.

BRHLTH-140 Credits: 3

Electronic Health Records: Administrative Application

Students explore the content of the electronic health record through a variety of administrative applications including those related to collection of patient data, documentation, scheduling, coding, insurance claim creation and billing. Medicolegal, ethical and professional use of the protected health information in the electronic health record is addressed. Prerequisite(s): Complete BRHLTH-135. Completion of or currently enrolled in BRHLTH-170.

BRHLTH-142 Credits: 3

Administrative Procedures for the Medical Office

Students apply previously learned skills to complete simulated medical office activities (with a medical focus) in a timely, accurate manner. Developing desirable human relations and decision-making skills is emphasized. Microcomputers are used. Prerequisite(s): Complete BRHLTH-125. Completion of or currently enrolled in BRHLTH-135 and BRHLTH-170.

BRHLTH-170 Credits: 3

Medical Insurance Principles and Coding

This course presents common health insurance terminology and familiarizes students with basic principles of disease coding and procedural coding from the physician/provider perspective. This is not for experienced coders. Prerequisite(s): Complete BRHLTH-125.

BRHLTH-174 Credits: 2

Medical Claims Reimbursement

The course focuses on achieving maximized reimbursement for the medical office through the evaluation and design of patient financial forms, the maintenance of insurance carrier documentation and the comparison of manual and electronic billing/claims filing systems. Prerequisite(s): Completion of or currently enrolled in BRHLTH-170.

BRHLTH-197 Credits: 3

Medical Office Career Investigation

This course provides students with in-depth exposure to employment in the healthcare office setting. Students will conduct interviews, research specific medical office careers, prepare a PowerPoint presentation, participate in group and individual work scenario case problems, and prepare an extensive portfolio.

CABMIL – Cabinet Making and Millwork (Department 409)

CABMIL-300 Credits: 2

Machine Maintenance/Jigs and Fixtures

Machine maintenance consists of adjusting and maintaining woodworking machinery such as wide-belt sanders, planers, shapers, and band and circular saws. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1).

CABMIL-303 Credits: 5

Woodworking 1

Students are introduced to the methods of processing materials using various types of woodworking equipment. An intensive safety program is incorporated into the development and completion of projects. Teamwork is emphasized in the coordination and production of group projects. Organizational skills are developed to prepare students for performance efficiency and quality standards. Prerequisite(s): Must be admitted to

the Architectural Woodworking/Cabinetmaking program (31-409-1). Completion of or currently enrolled in CABMIL-304.

CABMIL-304 Credits: 3

Woodworking Fundamentals

This course is designed to provide students with woodworking fundamentals including safe operating procedures of woodworking machines, types of wood, adhesives, gluing techniques and preparing wood for construction. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Completion of or currently enrolled in CABMIL-303.

CABMIL-305 Credits: 5

Woodworking 2

Students are involved in advanced cabinetmaking and millwork techniques used to produce architectural millwork and cabinets. Metric units of measurement are used to fabricate 32mm system casework. Students learn to set up, run and troubleshoot equipment necessary to produce exacting work. This course prepares the student for an entry-level position in a modern architectural millwork or cabinet shop. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Complete CABMIL-303 and CABMIL-304. Completion of or currently enrolled in CABMIL-306.

CABMIL-306 Credits: 3

Advanced Woodworking

This course is designed to provide students with the skills associated with advanced cabinetmaking techniques. Subjects covered include cabinet construction, case construction and 32 mm construction. Setup and safe operation of woodworking equipment emphasized. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Complete CABMIL-303 and CABMIL-304. Completion of or currently enrolled in CABMIL-305.

CABMIL-340 Credits: 2

Millwork for Carpenters

This course is designed to teach carpentry students the basic operations of woodworking machines. Students will identify warp in lumber and learn how to surface and cut lumber. Routing and proper clamping methods will be learned, along with proper usage of machines and tools used to make millwork and cabinets. Special attention is focused on safety. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

CABMIL-341 Credits: 2

Millwork Techniques

This advanced-level course is a continuation of the course Millwork for Carpenters. The purpose of the course is to advance the student's skills and knowledge of woodworking and cabinetmaking. The construction of cabinets and the application of plastic laminate for countertops will be covered. Prerequisite(s): Complete CABMIL-340.

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CABMIL-353 Credits: 1 **Wood Finishing**

The characteristics of supplies used in wood finishing are studied thoroughly. Topics such as the manufacture of stains, shellac, varnishes, wax, lacquers and enamels are covered. Health, safety and general trade practices are also studied.

CABMIL-355 Credits: 1 **Materials and Construction**

The characteristics, manufacture and uses of the essential materials and supplies used in cabinetmaking are presented. Topics such as physical properties of wood, defects in lumber, shrinkage and warp, lumber grades and sizes, hardware, fasteners, and plastic laminate are covered. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1).

CABMIL-383 Credits: 2 **Quantity Survey 1**

Students are given instruction in identifying dimensions and quantities of parts from furniture and residential woodwork blueprints. Planning, routing and cost estimate procedures are discussed. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Complete CONSTR-380 or CARP-380.

CABMIL-385 Credits: 2 **Cabinet Detailing**

This course provides students with the opportunity to learn how to read blueprints. This includes floor plans, elevations, and sectional and detailed drawings. In addition, basic skills in sketching and drawing are developed. Students will learn how to use basic sketches and drawings in the shop and to communicate with the customer. Prerequisite(s): Completion of or currently enrolled in CABMIL-355.

CABMIL-386 Credits: 2 **Cabinet Layout**

Students develop working and detailed drawings that are used in the shop to produce cabinetry or millwork. Conventional methods used to create drawings are explored to enhance comprehension of the information contained within them. Cut lists and materials lists are then developed from the drawings. Students will make full-sized layouts of their drawings. Prerequisite(s): Must be admitted to the Architectural Woodworking/Cabinetmaking program (31-409-1). Complete CABMIL-385.

CARP – Carpentry **(Department 410)**

CARP-301 Credits: 5 **House Framing**

House Framing is a practical course that includes the development of skills in the use and care of carpenter hand tools and portable machines. The fundamental principles of layout and erection of floor decks and walls are practiced in the shop. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

CARP-303 Credits: 5 **Roof Framing**

Roof Framing is designed to give the student practical experience in the layout, cutting and erection of rafters for gable, hip, intersection and gambrel roofs. Layout of equal- and unequal-pitch roofs is included, along with framing of dormers and roof openings. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1). Complete CARP-301 and CARP-304.

CARP-304 Credits: 3 **House Framing Fundamentals**

This course is designed to provide students with the fundamental skills associated with house construction. Subjects covered include safe operating procedures associated with power saws, hand tools, residential house construction techniques, types of wall framing and structural components. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

CARP-306 Credits: 5 **Exterior and Interior Finishing**

Exterior finishing is covered through installation of different types of exterior sidings, trim, and window and door units. Interior trim and hardware installation is practiced, along with the layout, fitting and assembly of various wood projects. Prerequisite(s): Complete CARP-301.

CARP-315 Credits: 1 **Energy Efficiency in Residential Construction**

The course provides an overview of key areas that are important to energy efficiency in the construction trades. Topics include energy usage and efficiencies, testing protocols and diagnostic equipment, combustion air exchange, and roles of energy professionals.

CARP-351 Credits: 1 **Building Materials**

The characteristics, manufacture and uses of the essential materials and supplies employed in several branches of the construction trades are presented. Such topics as physical properties of wood, defects in lumber, shrinkage and warp, lumber grades and sizes, hardware, and insulation are covered. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1).

CARP-383 Credits: 2 **Quantity Survey**

An estimating course for students in the building trades. It deals with the “taking off” of such carpentry materials as girders, posts, studs, rafters, roof sheathing, shingles, interior trim and drywall. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1). Complete CONSTR-380 or CARP-380.

CARP-385 Credits: 2 **Blueprint Reading 1**

A fundamental course in sketching and blueprint reading designed to help carpenters express themselves and interpret plans on the job. It includes sketching objects using straight and curved lines. Isometric, oblique and orthographic views and methods of dimensioning are

covered. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1)

CARP-387 Credits: 1 **Commercial Blueprint Reading**

A course in general construction, specifications, heavy construction and commercial blueprint reading and sketching. Emphasis is placed on the structure of typical buildings of different types and on developing communication skills in the reading of plans and specifications. Prerequisite(s): Must be admitted to the Carpentry program (31-410-1). Complete CARP-385.

CHEM – Chemistry **(Department 806)**

CHEM-110 Credits: 5 **Basic Chemistry**

This course is designed to provide the basic chemistry concepts to prepare students for more advanced science courses. Some of the topics include quantitative skills, atomic and molecular structure, nuclear chemistry, chemical bonding, solutions, stoichiometry, and gas laws. Laboratory experiences are included. This course uses Open Educational Resources in place of a textbook. Students can purchase a printed version of the required chapters at the bookstore or use a free, online version.

CHEM-186 Credits: 4 **Introductory Biochemistry**

Provides students with skills and knowledge of organic and biological chemistry necessary for application within nursing and other allied health careers. Emphasis is placed on recognizing the structure, physical properties and chemical reactions of organic molecules, body fluids and acids. Additional emphasis is placed on biological functions and their relationships to enzymes, proteins, lipids, carbohydrates and DNA. Prerequisite(s): Complete one year of high school chemistry with minimum grade of C or one semester college chemistry with minimum grade of C. Completion of or currently enrolled in ENG-195 or ENG-201.

CHEM-200 Credits: 4 **Chemical Science**

Introductory course in general inorganic chemistry designated for the student with little or no previous science training.

CHEM-207 Credits: 4 **General Chemistry**

This course provides a foundation in general inorganic chemistry in preparation for a second semester of organic and biochemistry. Specific topics include dimensional analysis, atomic structure, periodic table and properties of elements, compounds, solutions, acids/bases, reactions and equilibrium, oxidation/reduction, and introduction to organic chemistry. Prerequisite(s): Complete CHEM-110 with minimum grade of C or one year of high school chemistry with minimum grade of C.

CHEM – CHILLD

CHEM-208 Credits: 4

Survey of Biochemistry

This course provides a basis in organic chemistry needed for understanding biochemistry. Topics in biochemistry include structure and functions of carbohydrates, lipids, proteins, enzymes, and nucleic acids; protein synthesis and epigenetic controls; carbohydrate metabolism and energy production; metabolism of proteins and of lipids; relation of central metabolism to health. Prerequisite(s): Complete CHEM-207 and CHEM-211.

CHEM-211 Credits: 5

Chemistry 1

This course is a study of the basic principles of modern chemistry correlating atomic structure, theories of chemical bonding and reactivity of matter. Laboratory work is included. Prerequisite(s): One year of high school chemistry or one semester of college chemistry with minimum grade of C. Also, MATH-200 with minimum grade C or a satisfactory MATC placement test score.

CHEM-212 Credits: 5

Chemistry 2

This course is a study of kinetics, equilibria, acid/base chemistry, thermodynamics, nuclear chemistry, coordination chemistry, and electrochemistry. Qualitative analysis is included in the laboratory course. Prerequisite(s): Complete CHEM-211 with minimum grade of C.

CHEM-215 Credits: 5

Quantitative Chemical Analysis

This course is a study of the general principles of volumetric and gravimetric analysis, evaluation of analytical data, acidimetry and alkalimetry, redox process, solubility equilibria, complexation titrations and optical and electrometric methods. Laboratory work is included. Prerequisite(s): Complete CHEM-212 with minimum grade of C.

CHEM-216 Credits: 5

Instrumental Analysis

Instrumental analysis examines the design, construction and use of modern chemical analytical instruments. Topics included are absorption and emission spectroscopy, gas and liquid chromatography, and electrochemical methods. Prerequisite(s): Complete CHEM-212 with minimum grade of C.

CHEM-217 Credits: 3

Organic Chemistry 1

Lecture topics include nomenclature, structure, characterization, functional groups, preparations and reactions. A survey is made of stereochemistry, polymers and natural organic products. Practical applications of these topics are included in the laboratory work. Prerequisite(s): Complete CHEM-212 with minimum grade of C.

CHEM-218 Credits: 3

Organic Chemistry 2

A second semester course in organic chemistry that builds upon concepts learned in the first semester. Spectroscopy and the chemistry of

oxygen containing compounds are emphasized. Prerequisite(s): Complete CHEM-212 or CHEM-117 with minimum grade of C.

CHEM-219 Credits: 2

Organic Chemistry Laboratory 1

Laboratory work focuses on the synthesis and purification of organic compounds illustrating reaction mechanisms. Prerequisite(s): Complete CHEM-212 with minimum grade of C. Completion of or currently enrolled in CHEM-217 or CHEM-117.

CHEMT – Chemical Technology (Department 603)

CHEMT-101 Credits: 2

Chemical Laboratory/Process Safety

This course develops the knowledge and skills required to work safely in the chemical laboratory. Among the topics included are the history and application of state and federal regulations pertaining to the workplace, recognition and reduction of chemical and physical hazards, manipulation of glassware and laboratory equipment, handling compressed gas cylinders, and personal protective equipment and practices. Certified Cardiopulmonary Resuscitation for Professional Rescuers and First Aid training are included. Prerequisite(s): Complete CHEM-110, CHEM-211, or both SCIHS-705 and SCIHS-706, or both SCIPH-705 and SCIPH-706 with minimum grade of C.

CHEMT-103 Credits: 2

Introduction to Chemical Technology

This course introduces students to chemical technology. Students learn to use the fundamental skills needed to work safely and productively in the chemical laboratory. The proper procedures and methods for recording, manipulating and applying data are noted. Measurement of intensive and extensive physical properties of materials using common laboratory instruments is stressed. Spectroscopy and chromatography are introduced.

CHEMT-105 Credits: 3

Introduction to Instrumental Methods

Introduction to Instrumental Methods presents the learner with the opportunity to become familiar with the basic uses and operation of modern analytical instrumentation. Real samples will be analyzed using gas and liquid chromatographs. Optical instruments include UV-visible, atomic, atomic emission, and fluorescence spectrometers.

CHEMT-107 Credits: 2

Industrial Methods of Analysis

Tests and analyses similar to those employed in industry are used to determine the characteristics of raw materials and finished products. Standard and official methods as outlined by ASTM, AOAC, FCC, etc., are used in the testing of petroleum products, metals, ores, foods, soaps and detergents, and water. Instrumental and classical methods are used. Prerequisite(s): Complete CHEMT-105 with minimum grade of C.

CHEMT-109 Credits: 3

Chemical Processes

Chemical Processes focuses on the role, structure and operations of industrial chemical laboratories. The activities, responsibilities and functions of the various business activities are examined from the perspective of a technician working in research and development or technical service laboratory. Prerequisite(s): Complete CHEM-211.

CHEMT-111 Credits: 5

General Chemistry 1

A study is made of the basic principles of modern chemistry, correlating atomic structure, the theories of chemical bonding and the structure and reactivity of matter. Laboratory work is included and demonstrates the principles discussed. Prerequisite(s): Complete one year of high school chemistry with minimum grade C or complete one year of college chemistry with minimum grade C.

CHEMT-112 Credits: 5

General Chemistry 2

A study is made of kinetics, equilibria, thermodynamics, nucleonics, coordination chemistry, electrochemistry and topics in organic and biochemistry. Qualitative analysis is emphasized in the laboratory course. Prerequisite(s): Complete CHEMT-111 or CHEM-211 with minimum grade of C.

CHEMT-115 Credits: 5

Quantitative Analysis

A study is made of the general principles of volumetric and gravimetric analysis, acidimetry and alkalimetry, redox process, solubility equilibria, complexation titrations, and optical and electrometric methods. The evaluation of analytical data is stressed. Laboratory work is included. Prerequisite(s): Complete CHEMT-112 or CHEM-212 with minimum grade of C.

CHEMT-116 Credits: 5

Instrumental Analysis

Instrumental Analysis examines the design, construction and use of modern chemical analytical instruments. Topics included are absorption and emission spectroscopy, gas and liquid chromatography, and electrochemical methods. Prerequisite(s): Complete CHEMT-112 or CHEM-212 with minimum grade of C.

CHEMT-117 Credits: 3

Organic Chemistry 1

Lecture topics include the principles of bonding, stereochemistry, mechanisms, kinetics and spectrometry applied to aliphatic and aromatic hydrocarbons and simple mono-functional organic molecules. Prerequisite(s): Complete CHEMT-112 or CHEM-212 with minimum grade of C.

CHEMT-118 Credits: 3

Organic Chemistry 2

A second semester course in organic chemistry that builds upon concepts learned in CHEMT-117. Spectroscopy and the chemistry of oxygen containing compounds are emphasized. Prerequisite(s): Complete CHEMT-117 with minimum grade of C.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

CHEMT-119 Credits: 2

Organic Chemistry Laboratory 1

Laboratory work focuses on the synthesis and purification of organic compounds illustrating reaction mechanisms. Prerequisite(s): Completion of or currently enrolled in CHEMT-117 or CHEM-217. Must be admitted to Chemical Technician program (10-603-1).

CHILDD – Child Development (Department 307)

CHILDD-108 Credits: 3

ECE Early Language and Literacy

This three-credit course explores strategies to encourage the development of early language and literacy knowledge and skill building in children from birth to 8 years of age.

CHILDD-110 Credits: 3

ECE: Social Studies, Art and Music

This three-credit course will focus on beginning-level curriculum development in the specific integrated content areas of social studies, art, music and movement (SSAMM) in children from birth to 8 years of age.

CHILDD-112 Credits: 3

ECE: STEM

This three-credit course will focus on beginning-level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics children from birth to 8 years of age.

CHILDD-117 Credits: 3

ECE: Credit for Prior Learning

This three-credit course examines early childhood professional experience for the purpose of receiving credit for prior learning. Course competencies include access needed support services on campus and online, analyze professionalism in the early childhood field, identify core-abilities, identify what a competency is within a course, examine the courses and outcomes of the WTCS Early Childhood Education program, analyze performance assessment, compare professional experience with early childhood competencies, compile materials for performance assessment of course(s), and determine plan of action for program completion. Two years in ECE field required. Prerequisite(s): Must be admitted to the Early Childhood program (10-307-1) or the Child Care Services program (31-307-1), and two years in ECE Field and registry recipient.

CHILDD-135 Credits: 3

Family Child Care Capstone

Includes a review of principles and practices of budget planning, budget preparation and fiscal management. Must be a family child care provider, lead teacher or program director.

CHILDD-140 Credits: 3

Behavior and Emotional Challenges

This three-credit course prepares the student to

build rapport with children and their families; create supportive learning environments; demonstrate positive social-emotional teaching strategies; define specific discipline and guidance strategies; assess challenging behaviors; describe specific diagnoses typically related to challenging behaviors; develop individualized, positive guidance plans; and communicate the need for positive, consistent, team approaches to including children with challenging behaviors in typical community settings.

CHILDD-141 Credits: 3

Special Healthcare Needs

This course will have a medical focus and covers frequently encountered specialized healthcare needs of individuals with disabilities, preparing the student to examine altered body systems function, including sensory, gastrointestinal (tube feedings), bowel and bladder elimination, respiratory (allergies and asthma), cardiovascular/blood, musculoskeletal, neurological, skin/immune, and endocrine (diabetes) related issues. You will not be practicing medicine, but you will gain a better understanding of medical issues and professionals who can support you in establishing policies and procedures that assure safe, quality care for all.

CHILDD-142 Credits: 3

Inclusion Capstone Family and Team

During this course, you will be spending time with a child in the community settings that a child experiences such as their home, school, child care, grocery store, medical settings, parks, libraries and more! As you do so, you are offered the opportunity to deeply explore the perspectives of the various people involved in this child's life as well as the service delivery systems available to the child and family. Prerequisite(s): Complete CHILDD-140, CHILDD-141 and CHILDD-187.

CHILDD-148 Credits: 3

ECE: Foundations of ECE

This three-credit course introduces the early childhood profession through a historical overview of the field. The course will explore program trends, quality indicators, and developmentally appropriate practices for children birth to 8 years of age.

CHILDD-151 Credits: 3

ECE: Infant and Toddler Development

This three-credit course explores infant and toddler development as it applies to an early childhood education setting. This course focuses on children's development from conception through 36 months (3 years). This course includes training for Wisconsin Breastfeeding Friendly Child Care certification.

CHILDD-154 Credits: 3

Engaging Youth in Groups

This course explores the dynamics of working with children in group settings. It looks at the development of relationships between staff and children, between children and how our

working knowledge of children supports their engagement and informs our strategies for positive behavior guidance.

CHILDD-155 Credits: 3

Intentionality in Programming

This course focuses on the learning environment and curricular models within an informal learning environment. It will explore the role and methods for informal observation and recording as it is used in identifying the needs and interests of the children. It will explore lesson planning that is intentional, scaffolds learning and addresses core standards.

CHILDD-160 Credits: 3

ECE: Field Experience 1

This three-credit, introductory field experience course introduces the foundations of early childhood education under guided supervision of a mentor teacher in an early childhood setting, working with children from birth through age 8. This course meets the requirements for the Wisconsin Model Early Learning Standards 18-hour training.

CHILDD-167 Credits: 3

ECE: Health Safety and Nutrition

This three-credit course examines the topics of health, safety and nutrition within the context of the early childhood educational setting for children from birth through 8 years of age. This course includes training for abusive head trauma, sudden infant death syndrome (SIDS), and mandated reporter certifications.

CHILDD-170 Credits: 3

ECE: Field Experience 2

This three-credit intermediate field experience course includes assisting the mentor teacher in carrying out classroom routines and implementing developmentally appropriate learning experiences that promote child development and learning through play for children from birth to age 8. Prerequisite(s): Must be admitted to the Early Childhood Education program (10-307-1).

CHILDD-179 Credits: 3

ECE: Child Development

This three-credit course examines child development within the context of the early childhood education setting. This course focuses on children 3-8 years of age. Prerequisite(s): Complete CHILDD-151.

CHILDD-181 Credits: 3

Child Care Operations Management

This is the second of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs.

CHILDD – CIVIL

CHILDD-182 Credits: 3

Child Care Financial Management

This is the third of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course represents an overview of the roles and responsibilities of administrators of various early care and education programs and the groups with whom they have role relationships, with an emphasis on quality.

CHILDD-184 Credits: 3

The External Environment

This is the fourth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers the external factors and relationships that provide constraints and opportunities that affect an organization's quality and ability to survive. It includes predicting supply and demand, marketing, licensing and other required regulation, funding, accreditation, external evaluation, collaboration with community organizations and agencies, public policy issues in early care and education, advocacy, and working for public policy changes.

CHILDD-185 Credits: 3

Child Care Best Practices

This is the fifth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers child care as a family-friendly community, integration of child growth and development principles into all aspects of the program, establishing and maintaining quality in the program, developing partnerships with families, multicultural and anti-bias approaches in curriculum, materials, activities, relationships, and space design and equipment.

CHILDD-186 Credits: 3

Child Care Administrative Capstone

This is the last of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as

administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. Those first five courses are primarily about mastering the necessary skills to be successful at managing quality early childhood education programs. The strategies learned in this course build upon their management skills and take them beyond management to incorporate leadership in their programs, communities and profession. Through the development of a major project, students synthesize, integrate and apply the concepts and skills acquired in the full series of courses. Prerequisite(s): Complete CHILDD-204, CHILDD-181, CHILDD-182, CHILDD-184 and CHILDD-185.

CHILDD-187 Credits: 3

ECE: Children With Differing Abilities

This three-credit course focuses on the child with differing abilities in an inclusive early childhood education setting while examining strategies for cultivating partnerships with families and community support for children from birth to 8 years of age.

CHILDD-188 Credits: 3

ECE: Guiding Child Behavior

This three-credit course examines positive strategies to guide children's behavior in the early childhood education setting for children from birth to 8 years of age. This course meets the requirements of the Wisconsin Pyramid Model training. Prerequisite(s): Complete CHILDD-151.

CHILDD-190 Credits: 3

ECE: Field Experience 3

This three-credit advanced field experience course focuses on supporting young children's development from birth to age 8 through observation, assessment, and implementation of developmentally appropriate teaching strategies. Prerequisite(s): Must be admitted to the Early Childhood Education program (10-307-1). Complete CHILDD-160 and CHILDD-170.

CHILDD-195 Credits: 3

ECE: Family and Community Relations

This three-credit course will examine the role of relationships with family and community in early childhood education for children from birth to 8 years of age. In this course, students will complete the Strengthening Families Training.

CHILDD-199 Credits: 3

ECE: Advanced Practicum

In this final, three-credit practicum course, you will demonstrate competence in supporting child development through observation, assessment and implementation of teaching strategies as you work in and learn about and apply the course competencies in an actual early childhood setting. You will demonstrate a high level of skill in fostering relationships with children, families and early childhood professionals, and use skills learned in a lead teacher role to develop

a career plan to transition from student to early childhood education professional Prerequisite(s): Admission to the Early Childhood Education program (10-307-1). Complete CHILDD-175 and CHILDD-177.

CHILDD-204 Credits: 3

Supervise/Administrate ECE Programs

This is the first of six courses designed to prepare participants as child care administrators. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school-age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs.

CHILDD-210 Credits: 3

Field Experience 4

This final, three-credit preprofessional field experience course focuses on demonstrating a comprehensive understanding of children from birth to age 8, and families. An emphasis is on practicing the lead teacher role to design, implement and evaluate a connected unit of learning experiences. Prerequisite(s): Must be admitted to the Early Childhood Education program (10-307-1). Complete CHILDD-160, CHILDD-170 and CHILDD-190.

CHNN – Community Health and Nutrition Navigator (Department 539)

CHNN-202 Credits: 3

Healthcare Delivery

This course examines the different types of healthcare institutions and the various roles of healthcare providers. The course also addresses types of diseases, diagnoses and types of treatment, along with the use of the medical record and continuity of care.

CHNN-203 Credits: 3

Prevention and Community Health

This course will address levels of prevention (primary, secondary and tertiary), assess individual and community needs and discuss use of evidenced based practices and community resources to engage individuals and families in ongoing prevention and health assessment efforts. Prerequisite(s): Completion of or currently enrolled in HEALTH-112.

CHNN-206 Credits: 2

Experiential Practice 1

This supervised practicum experience will focus on application of skills and knowledge in either the community health setting or the insurance setting.

CHNN-207 Credits: 3

Experiential Practice 2

This supervised practicum experience provides application of health navigator acquired skills and knowledge in an agency setting of student's choice (community health, insurance or health care agency as patient navigator).

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

CIVIL – Civil Engineering (Department 607)

CIVIL-101 Credits: 2

Civil Engineering Drawing

The methods, techniques and equipment used in the civil engineering profession are studied. Drafting principles of geometric construction and orthographic projection are applied. Basic civil engineering drawings are reviewed, including subdivision mapping, plan and profiles, cross sections, and site and grading plans.

CIVIL-102 Credits: 2

Introduction to AutoCAD

This course introduces students to two-dimensional computer drafting. Course content includes how to draw orthographic views and section views; how to draw entities such as lines, circles and text; how to add dimensions; how to edit drawings; and how to create and use blocks. Both A- and B-size templates are used. The American National Standards are emphasized in line weights, dimensions and appearance.

CIVIL-105 Credits: 2

Computer Applications

Computer applications such as word processing and spreadsheet usage are covered. Calculator methods and programming with the TI-86 scientific programmable calculator are included.

CIVIL-106 Credits: 2

Intermediate AutoCAD

This course is designed to expand the use of 2D AutoCAD. The course will cover advanced editing techniques, the use of multiple scale factors for drawings, attributed blocks, dynamic blocks, the use of Xrefs and advanced dimensioning. System variables and basic script files are also studied. Prerequisite(s): Complete CIVIL-102.

CIVIL-108 Credits: 1

Construction Computer Applications

This computer applications course is designed to provide students with word processing, spreadsheet and internet skills. Additionally, the course gives students an opportunity to utilize these skills in a project and presentation. Prerequisite(s): Completion of or currently enrolled in CABMIL-303.

CIVIL-110 Credits: 2

Introduction to Civil 3D

Civil 3D is an engineering software application used by civil engineers and other professionals to plan, design and manage civil engineering projects. Students will become familiar with the Civil 3D user interface and enhanced capabilities with respect to AutoCAD. Field collected survey points, point file formats and Point Groups are discussed and used; surfaces are created utilizing breaklines, feature lines, and point groups; alignments, annotation methods, and geo-referenced digital orthophotography are also covered. Prerequisite(s): Complete CIVIL-102.

CIVIL-135 Credits: 3

Public Works Engineering and Estimating

The basic principles of planning, design, construction and operation of public works facilities, such as water, wastewater, solid waste and transportation systems are discussed. Estimating techniques for civil engineering projects are covered.

CIVIL-141 Credits: 4

Statics and Strength of Materials

The principles of static equilibrium are applied to free bodies. Students study the behavior of simple structures under load. The properties of the cross section are determined and used in the analysis of stress, deflection and strain. Compression, tension, shear and bending stresses are analyzed. Prerequisite(s): Complete MATH-115 or MATH-202.

CIVIL-142 Credits: 3

Structures

General structural behavior with respect to live and dead loading, wind loading, earthquake loading and transfer of loads throughout a structure by diaphragms and shear walls are studied. The principles of structural steel, reinforced concrete and timber structures are studied, including the codes of practice for each. Different types of foundations are presented and basic foundation design principles are studied. Prerequisite(s): Complete CIVIL-141 and MATH-115 or MATH-202.

CIVIL-147 Credits: 3

Soils and Materials Testing

The purpose of this course is to help students gain an understanding of the engineering properties of construction materials and soils. Lab tests are performed on soil, aggregates, concrete and steel. The results of these tests are then used to determine the strengths and weaknesses of each material related to their use in civil engineering. WisDOT Certification for PCCTec I/IA (Portland Cement Concrete Technician) is also available as part of this course. Prerequisite(s): Complete CIVIL-105. Completion of or currently enrolled in MATH-115.

CIVIL-148 Credits: 3

Structural Detailing

The students will learn how to draw detailing drawings using AutoCAD and Autodesk Revit Structure. Autodesk Revit Structure is a 3D civil engineering design software used for civil design, drafting and documentation, collaboration, and Building Information Modeling (BIM) workflows. The students will learn how to draw a structural project and framing system and add structural elements such as concrete foundation, walls, beams in addition to steel beams, columns and connections. Prerequisite(s): Complete CIVIL-106 and CIVIL-141.

CIVIL-155 Credits: 2

Surveying 1

The principles of surveying are presented and the use of surveying tools and instruments in the application of these principles is covered. Taping, leveling and basic total station operation are

included. The methods of measurement and the processing of measurement and data are studied.

CIVIL-156 Credits: 2

Surveying 2

The principles of surveying are continued, with emphasis on traverse procedures and calculations. The theodolite, EDM, total station GPS and data collector are used for topographic and construction surveys. The uses of COGO are also covered. Prerequisite(s): Complete CIVIL-155. Completion of or currently enrolled in CIVIL-102 and MATH-115.

CIVIL-157 Credits: 3

Route and Highway Surveying

Horizontal and vertical alignment field problems and theory are covered. Geometric design, including circular horizontal curves, vertical curves, sight distance, super elevation, cross sections and earthwork, is studied. Also, a roadway plan and profile are prepared. Prerequisite(s): Complete CIVIL-156 and CIVIL-102.

CIVIL-158 Credits: 2

Land Surveying

The U.S. Public Land Survey is reviewed. Minimum standards for property surveys are covered. Subdivision regulations and mapping requirements for CSM and subdivision plats are also studied. Also, the principles of control surveys, state plane coordinates and GPS are reviewed. Prerequisite(s): Complete CIVIL-157.

CIVIL-160 Credits: 3

Legal Elements of Land Surveying

This course covers the techniques of boundary location from the interpretation of written deeds. Principles are drawn from precedents established by the courts. Wisconsin Administrative Code A-E7 and Wisconsin Statutes Chapter 236 are reviewed. Prerequisite(s): Complete CIVIL-156.

CIVIL-161 Credits: 3

Boundary Location

The principles and practice of boundary locations are presented. The public land system is covered in detail. Principles for performing surveys will be discussed. Prerequisite(s): Complete CIVIL-156.

CIVIL-170 Credits: 3

Sewer and Water Systems

The principles of design and construction of water distribution, sanitary sewer and storm sewer systems are studied along with the related principles of hydraulics, hydrology and local standards. Engineering drawings of these facilities are also prepared. Prerequisite(s): Complete CIVIL-102 and CIVIL-135.

CIVIL-308 Credits: 1

Computer Applications for the Trades

This computer applications course is designed to provide students with word processing, spreadsheet, PowerPoint, email and internet skills. Additionally, the course gives students an opportunity to utilize these skills in a project and presentation.

CJS – CNC

CJS – Criminal Justice Studies (Department 504)

CJS-160 Credits: 3 Contemporary Legal Issues

Students will learn about past and present domestic and foreign terrorist organizations and the structure of organizations in America that must deal with the actions of these groups. Students will identify constitutional, judicial and statutory concepts relevant to investigating and prosecuting criminal actions of these groups. This includes investigative techniques currently in place.

CJS-161 Credits: 3 Ethics in Law Enforcement

Course provides a basic understanding of the theoretical foundations of ethical thoughts. Diverse ethical perspectives will be used to analyze and compare relevant issues in law enforcement. Students will critically evaluate individual, social and/or professional standards of behavior within society/law enforcement and also apply a systematic decision-making process to these situations.

CJS-162 Credits: 3 Sensitive Crimes

Students will identify what a sensitive crime is and responsibilities of law enforcement in dealing with victims of these crimes. Students will learn of resources and remedies available to these vulnerable victims. Students will also learn about crimes related to violence against women and exploitation of children for a local and global perspective. Prerequisite(s): Complete CJS-902.

CJS-164 Credits: 3 Law Enforcement Employability

Course will prepare students to engage in the law enforcement application process including various exams and interviews. Course also addresses mental and physical fitness related to careers in law enforcement.

CJS-900 Credits: 3 Introduction to Criminal Justice

Course is an examination of the American criminal justice system, including the historical and modern role/functions of federal, state, local law enforcement, courts and corrections. Introduction to critical thinking and problem-solving in the context of law enforcement.

CJS-901 Credits: 3 Constitutional Law

Course studies the theory of laws and the practices of arrests, searches and seizures as individual concepts and their interrelationships within the criminal justice system. Course also studies constitutional and statutory limitations on the proper authority of law enforcement to perform these tasks. Will contain discussions on contemporary issues of use of force and the exclusionary rules.

CJS-902 Credits: 3 Criminal Law

This course defines and describes theories concerning the nature of crime and the purpose and source of criminal law in American society. Identifies principles of constitutional, federal, state and local laws that are applicable to criminal law with emphasis on the Wisconsin Criminal Code. Prerequisite(s): Complete CJS 901.

CJS-903 Credits: 3 Professional Communications

Students will develop and apply specific communication skills and strategies in a variety of simulated situations that are commonly used in law enforcement. Interview and interrogation skills are also addressed in this context. Prerequisite(s): Complete CJS-900, CJS-901, CJS-902, CJS-906, CJS-907 and CJS-908. Can take CJS-905 concurrently.

CJS-904 Credits: 3 Juvenile Law

Students will learn the components of the juvenile justice system, including identifying children in need of protection or services and adjudication of delinquency. Students will identify legal issues and laws relevant to juveniles and the roles of law enforcement in investigational techniques employed in child maltreatment cases, as well as issues involving missing children. Prerequisite(s): Complete CJS-900.

CJS-905 Credits: 3 Report Writing

Students will learn to produce reports necessary for operations in law enforcement and the judicial system. Students will also learn the art of creating reports from various sources and the significance of these reports in legal proceedings. Prerequisite(s): Complete CJS-900, CJS-901, and CJS-902.

CJS-906 Credits: 3 Criminal Investigation Theory

Students will learn the role of evidence in criminal investigation and prosecution and the proper methods of identifying, documenting and recovering evidence. Students will learn methods and strategies related to interviews of witnesses and specific serious criminal offenses. Prerequisite(s): Complete CJS-901.

CJS-907 Credits: 3 Community Policing Strategies

Students will be introduced to strategies employed to implement the community policing model of law enforcement in use today. Student will learn how law enforcement can work with the community as partners to the benefit of each entity through proactive approaches that lead to reduction of criminal activities.

CJS-908 Credits: 3 Traffic Theory

Students will learn Wisconsin traffic laws and will investigate and document traffic crashes using current citation and forms. Students will also learn to recognize and interpret indicators of impaired driving and what actions are to be taken.

CLABT – Clinical Laboratory Technician (Department 513)

CLABT-109 Credits: 4 Blood Bank

This course focuses on blood banking concepts and procedures, including blood typing, compatibility testing, work-ups for adverse reaction to transfusions, disease states and donor activities. Prerequisite(s): Complete CLABT-110, CLABT-113 and CLABT-115.

CLABT-110 Credits: 1 Basic Lab Skills

This course explores health career options and the fundamental principles and procedures performed in the clinical laboratory. You will utilize medical terminology and basic laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests. Prerequisite(s): Must be admitted to the Clinical Laboratory Technician program (10-513-1) or Phlebotomy program (30-513-1).

CLABT-111 Credits: 2 Phlebotomy

This course provides opportunities for students to perform routine venipuncture, routine capillary puncture and special collection procedures. Prerequisite(s): Must be admitted to Clinical Laboratory Technician (10-513-1) or Phlebotomy (30-513-1) programs. Completion of or currently enrolled in CLABT-110.

CLABT-113 Credits: 1 QA Lab Math

Focuses on performing the mathematical calculations routinely used in laboratory settings. You will explore the concepts of quality control and quality assurance in the laboratory. You will review regulatory compliance requirements and certification and continuing education programs. Prerequisite(s): Must be admitted to Clinical Laboratory Technician program (10-513-1).

CLABT-114 Credits: 2 Urinalysis

Prepares you to perform a complete urinalysis, which includes physical, chemical and microscopic analysis. You will explore renal physiology and correlate urinalysis results with clinical conditions. Prerequisite(s): Completion of or currently enrolled in CLABT-110 and CLABT-113.

CLABT-115 Credits: 2 Basic Immunology Concepts

Provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections. Prerequisite(s): Must be admitted to Clinical Laboratory Technician program (10-513-1).

CLABT-116 Credits: 4 Clinical Chemistry

Introduces clinical chemistry techniques and procedures for routine analysis using photometric,

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potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function and blood gas analysis. Prerequisite(s): Complete CLABT-113.

CLABT-120 Credits: 3 **Basic Hematology**

Covers the theory and principles of blood cell production and function and introduces you to basic practices and procedures in the hematology laboratory. Prerequisite(s): Completion of or currently enrolled in CLABT-110, CLABT-111, CLABT-113 and CLABT-115.

CLABT-121 Credits: 1 **Coagulation**

This course introduces the theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed upon laboratory techniques used to diagnose disease and minor treatment. Prerequisite(s): Completion of or currently enrolled in CLABT-113.

CLABT-130 Credits: 2 **Advanced Hematology**

Explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment. Prerequisite(s): Complete CLABT-120.

CLABT-133 Credits: 4 **Clinical Microbiology**

Presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed. Prerequisite(s): Complete CLABT-170.

CLABT-140 Credits: 2 **Advanced Microbiology**

Provides an overview of acid fast organisms, fungi, parasites and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing and identification will be discussed. Prerequisite(s): Completion of or currently enrolled in CLABT-133.

CLABT-143 Credits: 1 **Seminar**

This course provides a review from previous courses that helps the student prepare for national certification examinations for the clinical laboratory technician level. It also assists students with resume development, job interview practice and job searches. Prerequisite(s): Complete CLABT-170.

CLABT-151 Credits: 3 **Clinical Experience 1**

In this clinical, you will practice the principles and procedures of laboratory medicine as an entry-level medical/clinical laboratory technician in a clinical laboratory setting. You will learn to operate state-of-the-art instruments and report

results on laboratory information systems. Prerequisite(s): Completion of or currently enrolled in CLABT-130, CLABT-133 and CLABT-140.

CLABT-152 Credits: 4 **Clinical Experience 2**

Provides continuing practice for the principles and procedures of laboratory medicine as an entry-level clinical laboratory technician in a clinical laboratory setting. You will learn to operate state-of-the-art instruments and report results on laboratory information systems. Prerequisite(s): Complete CLABT-151.

CLABT-170 Credits: 2 **Introduction to Molecular Diagnostics**

Introduces the principles and application of molecular diagnostics in the clinical laboratory. Prerequisite(s): Complete CLABT-113.

CNC – Computer Numerical Control (Department 444)

CNC-122 Credits: 1 **Introduction to CNC Setup and Operations**

Introduction to CNC Setup and Operations prepares the student to write basic programs for CNC turning and CNC vertical milling machines. Application of the Cartesian coordinate system is taught along with programming format. The CNC vertical milling center students will write basic programs using linear and rapid moves, circular interpolation, geometry offsets and a variety of canned cycles. The CNC turning portion of the course will require the student to write programs that include linear and rapid moves, circular interpolation with tool nose radius compensation. Student will learn tooling maintenance and machine maintenance, how to set up a loader program specific to a company's lathes, how to call up programs, complete prove out and run parts. Students will learn how to identify worn-out inserts and install new ones.

CNC-302 Credits: 1 **Computer Applications/CNC**

An introduction to Windows is given, beginning with an overview of a personal computer system's components. Students utilize Word and CNC editors to create and edit text files; explore the directory structure in the context of CNC programs and software; and control fixed and floppy disk drives. An introduction to Mastercam software will be covered.

CNC-303 Credits: 1 **CNC Machining Processes**

This course would cover CNC machining center processes and tooling such as face milling, end milling, spot drilling, drilling, reaming, tapping and boring. The CNC Turning Center processes covered are facing, turning, grooving, threading and drilling.

CNC-320 Credits: 1 **Tooling and Fixturing**

An overview of the basic types and functions of jigs and fixtures and the way these work

holders are designed and built. Basic elements of supporting, locating and clamping the parts are included, as well as modular component work holders and principles of power clamping.

CNC-321 Credits: 1 **CNC Machine Technology**

Instruction is given in state-of-the-art CNC machining technologies. This course is upgraded as these technologies change.

CNC-324 Credits: 3 **CNC Machine Programming/Prove Out 1**

This course is for those who already understand the basic concept of CNC machining center operations. Students will be taught to operate tech-specific CNC machines. Basic concepts of manual CNC programming including linear and circular interpolation, Z axis canned cycles, and cutter diameter compensation are covered. All CNC programs that the student writes will then be proved out on a full-sized industrial CNC machine center. Prerequisite(s): Complete either MACHTL-320 and MACHTL-322, or MACHTL-373.

CNC-325 Credits: 3 **CNC Machine Programming/Prove Out 2**

This course is for those who already understand the basic concepts of CNC machining center operations and CNC programming. The course will cover additional CNC programming techniques such as polar coordinates, metric programming, subroutine programming, zero shift and multiple work zero programs. Also covered are advanced CNC machining center operational procedures. Prerequisite(s): Complete CNC-324.

CNC-326 Credits: 3 **Machining Center CAD/CAM Programming 1**

This course is for those who already understand the basic concepts of CNC machining center operations and CNC programming. The course will cover additional CNC programming techniques including an introduction to CAD/CAM. Also covered are advanced CNC machine center operational procedures. All of the jobs that the student programs will be run on a CNC machining center. Prerequisite(s): Complete CNC-325.

CNC-327 Credits: 3 **Machining Center CAD/CAM Programming 2**

This course is for those who already understand the basic concepts of CNC machining center operations and CNC programming. The course will cover additional CNC programming techniques including CAD/CAM, which was introduced in the previous course. This course will start with a review of the basic process of creating a CNC program using a CAD/CAM system. Students will then advance through all of the different features of today's CAD/CAM systems as they relate to CNC programming for machining centers. Prerequisite(s): Complete CNC-326.

CNC– CSG

CNC-332 Credits: 3

CNC Turning Programming/Prove Out 1

This course is for those who already understand the basic operations of a CNC turning center. Students will be taught how to safely prove out a CNC program on the machines in the lab. Then students will be taught the basics of manual CNC programming for a turning center. All programs the student writes will be proved out on the machine with emphasis on tooling, speeds and feeds for metal cutting. Prerequisite(s): Complete either MACHTL-320 and MACHTL-322 or MACHTL-373.

CNC-333 Credits: 3

CNC Turning Programming/Prove Out 2

This course will build on the concepts learned in Programming/Prove Out 1. Additional operational procedures for CNC turning centers will be covered. Also, additional programming techniques such as threading, TNR compensation and metric programming will be covered. All programs the student writes will be proved out on the machine with emphasis on tooling, speeds and feeds for metal cutting. Prerequisite(s): Complete CNC-332.

CNC-334 Credits: 3

Turning Center CAD/CAM Programming 1

This course will build on the concepts learned in Programming/Prove Out 2. Additional procedures for CNC turning centers will be covered. Also, additional programming techniques such as internal boring, internal threading, and canned cycles will be covered. All programs the student writes will be proved out on the machines with emphasis on tooling, speeds and feeds for metal cutting. Also, an introduction to CAD/CAM programming will be covered. Prerequisite(s): Complete CNC-333.

CNC-335 Credits: 3

Turning Center CAD/CAM Programming 2

This course covers CAD/CAM programming for CNC turning centers using PC-based master CAM software. All programs the student writes will be proved out on the machine with emphasis on tooling speeds and feeds for metal cutting. Prerequisite(s): Complete CNC-334.

COMPSW – Computer Software (Department 103)

COMPSW-137 Credits: 1

MS Excel – Part 1

Students will cover the basics in creating and managing Excel worksheets and workbooks. This course includes creating cells, ranges, tables, charts and objects; formatting and printing reports; and applying formulas and functions. Excel Part 1 is designed for students at a beginner level in spreadsheet applications and provides good background material to help the student prepare for the beginning Microsoft Office Specialist (MOS) certification in Excel.

CONSTR – Constructions Trade General (Department 476)

CONSTR-302 Credits: 1

OSHA Safety/CPR for the Trades

First Aid according to the Red Cross and the U.S. Occupational Safety and Health Administration guidelines will be covered in the construction trade courses in carpentry, masonry and cabinet making. Prerequisite(s): Admission into the Construction Trades.

CONSTR-380 Credits: 1

Mathematics for Construction Trades

Through practical problems of the carpentry, masonry and cabinetmaking trades students review addition; subtraction; fundamentals of fractions and decimals; percentages, weights and measures and the application of formulas, along with linear, board, square root used in practical math in the construction trades for estimating and recording materials and supplies.

COSMET – Cosmetology (Department 502)

COSMET-301 Credits: 2

Intermediate Haircutting

Introduces the basic fundamental skills and related theory of men's haircutting techniques including use of Hair cutting razor, shears and clippers. Students practice cutting combination haircuts using 0, 45, and 90-degree angles to include; tapers, fades, natural afros, and other haircuts on mannequins and available models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, and COSMET-306.

COSMET-302 Credits: 2

Introduction to Haircutting

Introduces the theory of and related practical skills for cutting hair using shears and razor. Thinning techniques are presented. Students practice haircutting and thinning techniques on mannequins, available models, and hair goods. Prerequisite(s): Must be admitted to the Cosmetology program (31-502-1).

COSMET-303 Credits: 2

Master Haircutting

This course offers advanced haircutting techniques and methods using shear-over-comb and clipper techniques. Students practice haircutting skills on available models and classmates. Prerequisite(s): Complete BARCOS-300, COSMET-301, COSMET-302, COSMET-305, COSMET-310, COSMET-314 and COSMET-306.

COSMET-304 Credits: 2

Permanent Wave

Introduces the theory of and practical skills for permanently curling/waving naturally straight or wavy hair. Students practice winding permanent wave rods in sectioning patterns with chemical application on a mannequin and available

models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

COSMET-305 Credits: 2

Advanced Haircutting

Offers advanced haircutting techniques and methods to create haircuts with varying types of guidelines, weight lines, bangs, and fringes. Speed and efficiency are encouraged. Students practice haircutting skills on available models and classmates. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-301, COSMET-314, COSMET-310 and COSMET-306.

COSMET-307 Credits: 1

Advanced Esthetics

Students continue to build upon skills taught in Introduction to Esthetics. Students practice advanced skills in facial treatments, including facials for specific conditions: oily, mature, dehydrated; techniques and benefits of high frequency and galvanic current; corrective makeup; and facial hair removal. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

COSMET-308 Credits: 2

Nail Services

The course introduces the theoretical and practical skills of manicuring, pedicuring, nail art, and massage of the hand/arm and foot/leg in addition to the preparation for the Wisconsin state board exam. Students practice giving and receiving manicures and pedicures on classmates while demonstrating safety and sanitation procedures. This course includes some online assignments and tests in preparation for the online state board exam. Prerequisite(s): BARCOS-308 kit must be purchased from the bookstore at the start of the semester. Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

COSMET-309 Credits: 2

Chemical Relaxing

Introduces the theory and practical skills for chemically relaxing naturally curly hair for first-time and retouch applications. Students practice application techniques on mannequins and available models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

COSMET-310 Credits: 2

Hair Tinting

Introduces the theory of and basic application procedures of adding artificial hair color to natural hair using temporary, semipermanent, demipermanent and permanent products. Students practice applying professional hair coloring products on mannequins, available models and hair goods. Prerequisite(s): Must be admitted to the Cosmetology program (31-502-1).

COSMET-312 Credits: 1

Advanced Color

This course presents the advanced practical skills for removing natural hair color using hair lightening services. Students practice lightening

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techniques with cap and weaving lightening and freehand techniques on mannequins, available models and hair goods. MATC strongly recommends that students complete BARCOS-310, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, and COSMET-306.

COSMET-313 Credits: 1 **Hair Color Correction**

This course provides for the expansion of practical skills required for lightening hair by retouch and first-time processes; successful hair color correction is addressed. Students observe real-life hair lightening and color corrections and practice on models and mannequins. MATC strongly recommends that students complete BARCOS-312, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, and COSMET-312.

COSMET-314 Credits: 2 **Introduction to Hairstyling**

Introduces the artistic foundations in theory and practical wet hairstyling in roller placement, hair wrapping, blow drying, thermal pressing and thermal iron curling. Students practice developing skills on mannequins, hair goods and classmates. Prerequisite(s): Must be admitted to the Cosmetology program (31-502-1).

COSMET-315 Credits: 2 **Intermediate Hairstyling**

Presents wet hairstyling theory and practical skills for finger waving, pin curling and blow-dry styling. Students practice various pin curling, finger waving patterns and blow-drying techniques on mannequins and available models. Speed and accuracy are developed in thermal curling. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

COSMET-316 Credits: 1 **Advanced Style**

Offers advanced techniques in long-haired design, such as updos and braids, including French twist, Gibson, French braids and inverted French braids. Students practice on mannequins, available long-haired models and hair goods. Prerequisite(s): Complete BARCOS-300, COSMET-301, COSMET-310, COSMET-314, COSMET-315 and BARCOS-319.

COSMET-317 Credits: 1 **Barber/Cosmetology Theory**

Presents foundational theoretical concepts in microbiology and decontamination, general chemistry, micro-hair structure and anatomy as related to the profession. Students participate in large and small group activities, individual work in class activities and/or online. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314 and COSMET-306.

COSMET-320 Credits: 1 **Introduction to Guest Services**

This course offers opportunities for professional practice of developing skills in a salonlike environment. Students shampoo, cut, condition, color, roller set, blow dry/iron curl, thermal press, permanent wave, and relax the client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, and COSMET-306.

COSMET-321 Credits: 1 **Hair Extensions**

Students learn how to add hair extension to hair and to braided styles and apply skills learned on mannequins and available models. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306 and BARCOS-319.

COSMET-323 Credits: 1 **Intermediate Guest Services**

This course offers opportunities for professional practice of developing skills in a salonlike environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax the client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, COSMET-317, BARCOS-319, and COSMET-320.

COSMET-326 Credits: 1 **Advanced Guest Services**

This course offers opportunities for professional practice of developing skills in a salonlike environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax the client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, COSMET-317, BARCOS-319, COSMET-320 and COSMET-323.

COSMET-327 Credits: 1 **Master Guest Services**

This course offers opportunities for professional practice of developing skills in a salonlike environment. Student's shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax the client's hair under the direction of the classroom instructor. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, COSMET-317, BARCOS-319, COSMET-320, COSMET-323 and COSMET-326.

COSMET-328 Credits: 1 **Externship**

This course offers opportunities for professional practice of developing skills in a salonlike environment. Students shampoo, cut, condition, color, highlight, roller set, blow dry/iron curl, thermal press, permanent wave, and relax the client's hair under the direction of the classroom instructor or salon manager. Students gain receptionist skills. Sanitation and safety are stressed. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, COSMET-317, BARCOS-319, COSMET-320, COSMET-305, COSMET-312, COSMET-308, COSMET-307, COSMET-315, COSMET-323, COSMET-303, COSMET-313, COSMET-321, BARCOS-324, COSMET-329 and COSMET-326.

COSMET-329 Credits: 1 **Basic Artificial Nail Concepts**

This course provides the theoretical component of nail enhancements and practical skill development of artificial nail applications. Students observe and practice artificial nail applications including nail tips, nail wraps, acrylics, UV gel and UV gel polish on artificial nails. This course includes some online assignments and tests in preparation for the online state board exam. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306 and COSMET-308.

COSMET-335 Credits: 3 **State Board Review**

Presents a review of the theory and practical skills acquired throughout the program. Prepares students for successful completion of the barbering and cosmetology Wisconsin professional licensing exam. Students pack an exam kit, work through a mock examination and complete a school final theory exam. Prerequisite(s): Complete BARCOS-300, COSMET-302, COSMET-310, COSMET-314, COSMET-306, COSMET-301, COSMET-309, COSMET-304, COSMET-317, BARCOS-319, COSMET-320, COSMET-305, COSMET-312, COSMET-308, COSMET-307, COSMET-315, COSMET-323, COSMET-303, COSMET-313, COSMET-321, BARCOS-324, COSMET-329 and COSMET-326.

CSG – Computer Simulation and Gaming (Department 153)

CSG-110 Credits: 3 **Introduction to Computer Simulation and Gaming**

This course provides students with an overview of the computer simulation and gaming industry. Students will be introduced to genres, gaming development process, ethics, copyright issues, planning, marketing and management concepts. Emphasis will be placed on game objectives, keeping the player perspective and educational applications.

CSG – CULART

CSG-114 **Credits: 3**

Introduction to Game Development/ Programming

This course focuses on object-oriented logic and programming skills as it applies to simulation and game development. Students will learn the fundamentals of applying sequences, decisions, loops, variables and basic data structures in a game engine. They will also learn the importance of optimization and how to debug simulation and game software. Proper program design, documentation and testing will also be emphasized.

CSG-115 **Credits: 3**

CSG Production

This course provides students with a hands-on team approach to creating games and simulation from the very beginning. Animation-focused students work side by side with programming-focused students to create simple introductory games and simulations on a game engine. Exposure to content requirements, engine limitations, scheduling, deliverables and communications will be emphasized. Teams will be selected and compete against each other for bragging rights and notoriety. The focus of this class is to perform rapid prototyping of ideas in a challenging environment while developing collaboration skills.

CSG-117 **Credits: 3**

Game Logic and Problem-Solving

This course presents a formal approach to logical thinking and problem-solving using game logic concepts. For students to think logically and solve game play problems, they need to understand game mechanics and game play choices. This means to use logically valid forms of analysis, critical thinking and application concepts to derive new results from those already known to be implemented in the gaming industry. This course will teach these game problem-solving structures in context with fundamental programming structure application.

CSG-118 **Credits: 3**

Game Engine Scripting

This course expands on the fundamental concepts introduced in the introduction to object-oriented programming in a gaming environment. Game scripting languages in a game engine environment will be used to create games and simulations. The course emphasizes good software engineering principles and developing fundamental programming skills in the context of a language that supports the object-oriented paradigm. In this course, the student applies lessons learned in introductory course to a preexisting game class within the game engine. Topics include classic techniques for algorithm design, game mechanics problem-solving in the object-oriented paradigm, and application of algorithm design techniques to a game mod project. Prerequisite(s): Complete CSG-117.

CSG-119 **Credits: 3**

Designing Interactive Displays

This course introduces students to interactive display systems using a game engine. Focus

will be on designing, producing and testing museum-quality programs and simulations for edutainment purposes. We will also emphasize display design concepts such as lighting, sound, projection, audience interaction, doцент design and user interface technology. Students will be immersed in a team and production environment on a real project for a real client. Prerequisite(s): Complete CSG-118 or ANIM-106.

CSG-120 **Credits: 1**

Interactive Display Production 1

This course provides the students opportunities to get practical production experience on the specific display platform prototype used at MATC. The student, working as part of a team, will be responsible for following production processes to evaluate current interactive displays and enhancing them. Focus will be placed on responding to client requests, developing practical design solutions and implementing those solutions.

CSG-127 **Credits: 3**

Agile Project Management

This course offers training in a wide variety of Agile Project Management techniques. Topics covered are Scrum, XP-Pair, Lean, Kanban and Feature Driven Development methods just to name a few. Agile provides the framework in which to apply these other methodologies for product development. Students taking this course will obtain the working knowledge required to pass industry standard certifications through the Scrum Alliance. Some of the certifications covered are Scrum Master, Product Owner, Scrum Trainer, Scrum Professional and Scrum Coach. This is done through project-based learning methods where teams will form and plan out several new product paper prototypes. Agile is quickly becoming the industry standard for self-managing teams to come together and successfully release new products and redirect old ones.

CSG-128 **Credits: 3**

Intermediate Game Development Programmer

This course expands upon object-oriented logic and programming skills as it applies to simulation and game development. Concepts such as formulas, algorithms, inheritance, polymorphism and data hiding as they relate to simulation and game development programming will be the main focus. Students will also learn the principles of proper version control in a team-based setting. Pair programming, understanding and implementing features and tasks, and collaborative development will also be emphasized. Prerequisite(s): Complete CSG-114.

CSG-129 **Credits: 2**

CSG Architecture

This course provides students with an overall architectural planning concept of a simulation or game. Students will be introduced to level diagrams, flow control, structure and progression diagrams, assessment tools in

educational applications, and decision-making mapping. Emphasis will be placed on planning, documentation tracking and process monitoring. Prerequisite(s): Complete CSG-110 and CSG-115.

CSG-130 **Credits: 3**

CSG Design

This course offers students an exploration of the fundamentals of simulation and game design. Students will construct a simple game or simulation using industry standards and test-driven design elements. Emphasis will be placed on the planning, development control and testing process of the simulation or game. Educational applications will also be discussed. Prerequisite(s): Complete CSG-110 and CSG-115.

CSG-131 **Credits: 3**

Introduction to Game Design

This course provides students with a hands-on team approach to designing games and simulation from the very beginning. Design members will learn theories and applications of game design as well as the process of design documentation within the game development environment. Exposure to content requirements, scheduling, deliverables and communications will be emphasized.

CSG-132 **Credits: 3**

Artificial Intelligence

This course provides students with an introduction to artificial intelligence concepts related to the simulation and game industry. Students will be introduced to basic planning, decision-making and testing concepts of AI that add value to simulations and games. Emphasis will be placed on developing an AI system for simple games to keep the user engaged. Prerequisite(s): Complete CSG-179.

CSG-133 **Credits: 3**

Intermediate Game Design

This course is designed to teach students how to create lore for characters and environments as well as advanced combat and economy systems. This is intended to prepare game designers for creating unique worlds and mechanics for all types of games. Focuses will be writing lore, level design, character design, enemy AI, combat design, puzzle design and game economies. These courses are intended for game designer-focused students. Prerequisite(s): Complete CSG-115 and CSG-117.

CSG-138 **Credits: 3**

Advanced Games Design

This course is designed to teach students how to create a unique game world with characters, environments, advanced combat systems and economy systems. This is intended to prepare game designers for creating unique game mechanics for all types of games. Focuses will be world design, level design, character design, enemy AI, combat design, puzzle design and game economies. This course is intended for game designer-focused students or students who want to broaden their creative design skills to support another focus. Prerequisite(s): Complete CSG-133.

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CSG-147 Credits: 3

Game Studio Management

This course provides students the opportunity to learn about how to effectively build and manage a technical games software development studio. Curriculum will revolve around building an employee handbook that reinforces a strong culture required to run a diverse, agile and lean business successfully. Students will also build a three-year strategic business plan that focuses on researching and building products within emerging markets. This course will also help students to design, build and manage information systems, as well as identify Dev Ops opportunities that will effectively help them to successfully deliver winning software. This course builds on learning gained from the Agile Project Management and Innovation Life Cycle.

CSG-179 Credits: 4

CSG API Programming

This course focuses on OO programming languages and tools used in computer simulations and games. Emphasis is placed on programming concepts used in an existing game engine at the root level of coding. Students will modify existing game code as they develop individual and group mods. The students will also be creating their own object classes to put into the game mechanics. The final project focuses on team programming and testing. Prerequisite(s): Complete CSG-118.

CSG-180 Credits: 3

Multimedia Collaborative Lab

This course allows students to work on collaborative projects with industry, Discovery World or internal MATC departments. Students apply project management skills and their creative skills to create interactive multimedia applications in learning, training or marketing environments. Students can work in teams or independently while guided by faculty. This process simulates an industry team-oriented work environment where faculty, industry and the students are all part of the project planning, monitoring and evaluation. Prerequisite(s): Complete CSG-181.

CSG-181 Credits: 4

CSG Collaborative Lab

This course offers students in the CSG program the opportunity to focus on their CSG project in an effort to produce a game module by the end of fourth semester. It allows time just to focus on production and testing of the integrated pieces of animation and programming. Prerequisite(s): Complete CSG-129 and CSG-130.

CSG-185 Credits: 3

Data Structures for Game Developers

This course focuses on advanced data structures used in programming simulations and games. Students will solve problems by using advanced data structures such as trees, queues, stacks and linked lists. The integration of these data structures into game engines as well as the fundamental concepts on their efficient use will be the main focuses of the course. Prerequisite(s): Complete CSG-128.

CULART – Culinary Arts (Department 316)

CULART-100 Credits: 1

Introduction to Food Service/Hospitality Industry

This introductory course details the worldwide and domestic history of culinary arts and the food service industry. Emphasis is placed upon various types of food service operations, organizational systems, historical and contemporary figures, career opportunities, food trends and the future of the food service industry. Prerequisite(s): Must be admitted to one of the following programs: Culinary Arts (10-316-1), Culinary Management (10-317-1) or Culinary Assistant (31-316-1),

CULART-103 Credits: 2

Culinary Arts Practicum

At the completion of the first year of study, students will be assessed on the application and demonstration of the program competencies required. Competencies include knife skills; basic cooking procedures including stocks, soups, sauces, dry heat and moist heat applications; vegetable applications; grains, pasta and potato applications; and the fabrication and preparation of meats, poultry, and fish. These will be assessed through a practical exam. Prerequisite(s): Complete CULART-116. Completion of or currently enrolled in CULMGT-112, CULART-122, CULART-124, CULART-126 and CULART-128.

CULART-105 Credits: 2

Dining Room Service

An orientation to acceptable hospitality standards essential to professional dining room service. Types of service, dining room functions, staff training, using current technology, guest service/customer relations, workflow and sales techniques are covered. Prerequisite(s): Complete CULART-103 and CULMGT-112. Completion of or currently enrolled in CULART-138.

CULART-106 Credits: 4

Contemporary Restaurant Cooking

In a practical restaurant kitchen, students plan, organize and prepare contemporary cuisines. To train students for this environment, this course emphasizes universal culinary techniques, intuitive cooking and cross-cultural flavor profiles. Students will learn about locally sourced ingredients and sustainable kitchen practices. Prerequisite(s): Complete CULART-103 and CULMGT-112. Completion of or currently enrolled in CULART-105 and CULART-138.

CULART-107 Credits: 1

Field Experience in Food Service/ Hospitality Industry

Students work 216 hours as regular employees in a food service facility. The goal of Field Experience is to give students the opportunity to apply, on the job, the skills learned in the classroom and lab and obtain a broad overview of an entire facility. Prerequisite(s): Complete INTRN-796 with minimum grade of C.

CULART-109 Credits: 1

Garde Manger 1

This course is designed to cover specialty techniques in the preparation of various charcuterie, preserved foods, cold food, hors d'oeuvres and decorative food applications. Forcemeats such as pates, terrines, galantines and sausage are prepared and presented. Brines, cures, marinades, dry rubs and barbecue for various meats and fish are produced. Salad and appetizer production and presentation are covered as well. Prerequisite(s): Complete CULMGT-112.

CULART-111 Credits: 1

Garde Manger 2

This course is designed to cover specialty techniques in the preparation of various charcuterie, preserved foods, cold food, hors d'oeuvres and decorative food applications. Forcemeats such as pates, terrines, galantines and sausage are prepared and presented. Brines, cures, marinades, dry rubs, and barbecue for various meats and fish are produced. Prerequisite(s): Complete CULMGT-112 and CULART-109.

CULART-114 Credits: 4

Food Advocacy

This course explores barriers and opportunities to the current food system and how we can support industrywide and local change for food advocacy. Students problem-solve to create efficiencies within MATC culinary food outlets. Production is focused on food recovery, utilization and quantity cooking to benefit student and community populations. Prerequisite(s): Complete CULMGT-112, CULART-122, CULART-124, CULART-126 and then choose either CULART-116 or CULART-121. Completion of or currently enrolled in CULART-134, CULART-135, CULART-136 and CULART-137.

CULART-116 Credits: 2

Mise En place/Culinary Fundamentals

Students learn basic kitchen principles of food safety, kitchen organization, knife skills, egg cookery, recipe proficiency, equipment and smallwares identification and usage. Prerequisite(s): Must be admitted to one of the following programs: Culinary Arts (10-316-1), Culinary Assistant. (31-316-1), Baking and Pastry Arts (10-314-1) or Baking Production (31-314-2). Completion of or currently enrolled in CULMGT-112.

CULART-117 Credits: 1

Nutrition for Culinary Arts

The course introduces the basic principles of scientific nutrition. Students will be introduced to nutritional guidelines, basic nutrients, and promotion of healthy cooking and eating. The course will show how the foods we eat contribute to our health and to the enjoyment of our lives.

CULART – CVTECH

CULART-118 Credits: 1

Sustainable Food Communities

A study of the food service industry's environmental impact on natural resources and issues related to sustainable practices such as renewable energy, waste reduction, local food sourcing and food production methods. Prerequisite(s): Must be admitted to Culinary Arts (10-316-1), Culinary Assistant (31-316-1), Baking and Pastry Arts (10-314-1) or Baking Production (31-314-2).

CULART-122 Credits: 1

Stock, Soups and Sauces

This course will have students discuss and prepare consommé, cream, clear, puree, and bisque soups. Students will prepare a variety of stocks, including white, vegetable, beef, brown, and chicken. Students will make a variety of sauces including the mother sauces and several small sauces. Prerequisite(s): Complete CULMGT-112. Must be admitted to the Culinary Arts (10-316-1), Culinary Assistant (31-116-1), Baking and Pastry Arts (10-314-1) or Baking Production (31-314-2) programs. Completion of or currently enrolled in CULART-116.

CULART-124 Credits: 1

Meat Identification/Fabrications

This course introduces the student to the subject of meats and their application in food service operations, building a strong foundation that supports the principles to be learned in the cooking courses that follow. Through lectures, demonstrations, hands-on activities and reviews, students learn about the muscle and bone structure of beef, veal, pork, lamb and poultry; fabrication methods for sub-primal and food service cuts; inspection and proper tying and trussing methods. Lectures introduce meat inspection, quality and yield grading, costing and yield testing, purchasing specifications, and basic information concerning the farm-to-table trail. Discussions include proper knife selection and butchery equipment, with sanitation and safety standards stressed throughout. Current HACCP procedures and methods are used. Prerequisite(s): Complete CULART-116. Completion of or currently enrolled in CULMGT-112, CULART-103, CULART-122, CULART-126 and CULART-128.

CULART-126 Credits: 1

Seafood/Shellfish Cookery

This course is designed to focus on the various types of cooking methods of fish and seafood found in the restaurant industry. Students learn about the history of commercial fishing in the U.S. and other regions of the world. The emphasis of study will include fabrication of fish and seafood, various cooking methods, aqua culture, sustainability in the seafood industry and applying various cooking techniques for all of the major seafoods to be studied. Students learn the difference between fresh water fish, farm-raised fish and seafood from the oceans around the world. Prerequisite(s): Complete CULART-116. Completion of or currently enrolled in CULMGT-112, CULART-103, CULART-122, CULART-124 and CULART-127.

CULART-128 Credits: 1

Vegetables, Starches and Grains

Basic principles of vegetable, starches and grains preparation and presentation are taught. Study is made of various cooking methods/styles/trends and procedures applied to these categories. Scientific principles relating to the physical composition of different foods and the chemical changes involved in the cooking process are analyzed. Principles include heat transfer, food composition, sanitation practice, personal hygiene, foundation recipes, food processing tools and equipment, state of professionalism, and knife skills. Prerequisite(s): Complete CULART-116. Completion of or currently enrolled in CULMGT-112, CULART-103, CULART-122, CULART-124 and CULART-126.

CULART-134 Credits: 1

American Regional Cuisine

The American regions included in this study are the Eastern Heartland, New England, the South, Louisiana, Far West, Northwest, and West Coast, including Hawaii. A brief overview of the geography, history and culture of these various regions sets the stage for an introductory study of the primary ingredients and various cooking methods of each region's iconic dishes. Students prepare a variety of food items in lab. Prerequisite(s): Complete CULMGT-112, CULART-122, CULART-124 and CULART-126. Completion of CULART-116 or CULART-121. Completion of CULART-123 or CULART-128. Completion of CULART-103, CULART-115 or CULART-127.

CULART-135 Credits: 1

European and Mediterranean Cuisine

Students will discuss and prepare Mediterranean and European cuisines, discuss the history of those regions, and the specific equipment and tools needed to prepare the cuisines. Students will adhere to basic kitchen principles of food safety. Prerequisite(s): Complete CULMGT-112, CULART-122, CULART-124 and CULART-126. Complete CULART-116 or CULART-121. Complete CULART-123 or CULART-128. Complete CULART-103, CULART-115 or CULART-127. Completion of or currently enrolled in CULART-112, CULART-134 CULART-136 and CULART-137.

CULART-136 Credits: 1

Asian Cuisine

This course provides a general overview of the geography, food history and culture of various areas in Asia, setting the stage for an introductory study of the primary ingredients and cooking methods of the region's traditional dishes. Students prepare a variety of food items in lab. Prerequisite(s): Complete CULMGT-112, CULART-122, CULART-124 and CULART-126. Completion of CULART-116 or CULART-121. Completion of CULART-123 or CULART-128. Completion of CULART-103, CULART-115 or CULART-127. Completion of or currently enrolled in CULART-112, CULART-134, CULART-135 and CULART-137.

CULART-137 Credits: 1

South and Latin American Cuisine

Students discuss the history of the Latin American region, prepare dishes from that cuisine, using specific ingredients, equipment and tools needed, while adhering to basic kitchen principles of food safety. Prerequisite(s): Complete CULMGT-112, CULART-122, CULART-124 and CULART-126. Then complete CULART-116 or CULART-121, complete CULART-123 or CULART-128, complete CULART-103, CULART-115 or CULART-127. Completion of or currently enrolled in CULART-105.

CULART-138 Credits: 2

Restaurant Operations

This course focuses on the concepts of managing a restaurant operation. Roles of management, quality service, cash handling, technology trends, food and beverage pairing and beverage management are studied in this course. Prerequisite(s): Complete CULART-103, CULMGT-105 and CULMGT-112. Completion of or currently enrolled in CULART-105.

CULART-139 Credits: 1

Food Truck Operations

The Food Truck Operations course will expose students to the daily operating functions of running a food truck. Students will have lectures covering the legalities, menu planning, logistics, marketing, preparing the food and serving from the truck for the lab portion of the course. The locations of the truck may vary and the planned menu will change based on the clientele. Each student will rotate through the stations of the truck to experience all aspects of running the business.

CULART-190 Credits: 2

Introduction to Culinary Arts

This course is a foundational food lab that focuses on various cooking methods/styles and procedures as they apply to the main food categories. The key topics are sanitation, use of tools and equipment, recipe dissemination, mise en place, and cooking methods. Students will be exposed to meat, fish, poultry, stocks, sauces, vegetable and starch cookery at an introductory level.

CULMGT – Culinary Management (Department 317)

CULMGT-101 Credits: 2

Menu Planning and Design

Students learn to apply the principles of menu planning and menu design as they relate to a variety of hospitality operations. Prerequisite(s): Complete CULART-116.

CULMGT-102 Credits: 2

Food and Beverage Procurement

The concept of food and beverage purchasing are studied with emphasis on sourcing, writing specifications and controlling costs. Prerequisite(s): Complete CULMGT-105.

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CULMGT-105 Credits: 3

Culinary Math and Cost Control

Emphasis is placed on methods used to solve mathematical problems that relate to food service operations. Topics covered include operations with decimals, percents, weights and measures; recipe conversion; menu pricing; food costs; inventories; break-even analysis; and financial statements. Prerequisite(s): Complete MATH-134 and must be admitted to one of these programs: Culinary Arts (10-316-1), Culinary Management (10-317-1), Culinary Assistant (31-316-1), Baking and Pastry (10-314-1) or Baking Production (31-314-2).

CULMGT-112 Credits: 2

Food Service Sanitation

Professional standards and practices in the prevention of food-borne illnesses are presented. Students prepare for the National Restaurant Association ServSafe Certification exam.

CVTECH – Cardiovascular Technology (Department 521)

CVTECH-102 Credits: 2

Introduction to CVT

This course will introduce distinctive areas of cardiovascular technology and the role of the technologist. Topics include invasive and noninvasive procedures, department orientation, medical terminology, blood-borne pathogens, medical ethics, emergent situations and nonpatient-related emergencies. Research papers on a variety of related topics and a group project will be required. Guest speakers and site visits to local healthcare/diagnostic facilities may be scheduled. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive (10-521-1) or the EKG Certificate (61-521-1).

CVTECH-110 Credits: 2

EKG Analysis

This course will explain the electrical activity of the heart and the various techniques for recording them. The differences between 3 and 12 lead electrocardiograms (EKGs) will be covered. Students will identify waveforms and rhythms, correlate them to the cardiac events, and troubleshoot and calibrate equipment. Prerequisite(s): Must be admitted to either the Cardiovascular Technology – Invasive (10-521-1) or Anesthesia Technology (10-541-1) programs.

CVTECH-115 Credits: 4

Essentials of Cardiac Care 1

This course will concentrate on the cardiovascular system. The focus will be on the structure and function of a healthy adult heart, fetal development of the cardiac system and its respective changes at birth and congenital and acquired pathologies. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1) or the Cardiovascular Technology – Echocardiography program (10-521-2) or the EKG Certificate program (61-521-1).

CVTECH-117 Credits: 4

Invasive CVT Fundamentals 1

Students are introduced to the cardiac catheterization laboratory. The various pieces of equipment and specific diagnostic and interventional procedures are presented. The student will learn the typical daily duties of an invasive cardiovascular technologist through didactic and laboratory instruction. Competencies will be demonstrated through written examinations, verbal explanations and demonstrations of clinical technique. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1).

CVTECH-118 Credits: 3

Echocardiography Basics

Echocardiography physics, principles and techniques will be introduced. Ultrasound and Doppler theory; M-Mode, 2D and Doppler echocardiography; instrumentation; artifacts; examination techniques; and physiologic views will be covered. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1).

CVTECH-120 Credits: 2

CVT Clinical Procedures

This four-week course is the student's first opportunity to observe and gain experience in a healthcare facility. Twelve hours per week are scheduled in the hospital setting under direct supervision observing/participating in all aspects of the cardiac catheterization laboratory technologist's duties. An additional four hours per week are required for on-campus lectures/discussion. Written documentation detailing the clinical phase of instruction will be required. Prerequisite(s): Echocardiography students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-118. Invasive students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-117.

CVTECH-121 Credits: 2

Echo Clinical Procedures

This four-week course is the student's first opportunity to observe and gain experience in a healthcare facility. Twelve hours per week are scheduled in the hospital setting under direct supervision observing/participating in all aspects of an echocardiographer's duties. An additional four hours per week are required for on-campus lectures/discussion. Written documentation detailing the clinical phase of instruction will be required. Prerequisite(s): Echocardiography students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-118. Invasive students complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-117.

CVTECH-122 Credits: 3

Peripheral Vascular Essentials

This course will focus on peripheral vascular anatomy and allow the student to understand the basic steps in endovascular treatment of peripheral vascular disease. Prerequisite(s): Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1).

CVTECH-132 Credits: 3

Physics of Medicine

This course introduces the theoretical and practical aspects of the physical sciences. The dependence of medical diagnostics and the analogous relationship of the human body to the sciences are emphasized. Topics include flow, pressure, resistance, electronic circuit analysis and Ohm's Law. Prerequisite(s): Complete CVTECH-120 or ANTECH-120. Must be admitted to either the Cardiovascular Technology – Invasive (10-521-1) or Anesthesia Technology (10-541-1) programs.

CVTECH-133 Credits: 3

Cardiovascular Pharmacology

The clinical importance of drug delivery is presented with an emphasis on the most commonly administered cardiovascular drugs, as well as other prophylactic medications. Additionally, the federal drug approval processes, various delivery methods, dose calculations and a review of the nervous system are presented. Prerequisite(s): Complete CVTECH-138. Completion of or currently enrolled in CVTECH-188 and CVTECH-189.

CVTECH-134 Credits: 3

Hemodynamics

The significance of concise and correct procedural hemodynamic data is presented with an emphasis on understanding the concepts and principles underlying hemodynamics. Topics addressed will include pericardial disease; appropriate equipment selection and troubleshooting; valvular heart disease; interpretation of arterial, atrial and ventricular waveforms; cardiac output measurement; cardiomyopathies; and intracardiac shunt detection. Additionally, the relationship of the cardiovascular and pulmonary systems to hemodynamics is examined with a focus on the principles of PVR, SVR, and Stroke Volume. Prerequisite(s): Complete CVTECH-120.

CVTECH-135 Credits: 4

Essentials of Cardiac Care 2

The structure and function of the major systems of the body are surveyed, with a focus on their interaction and reliance on the cardiovascular system. Lecture studies utilizing models will include cellular, cerebral and nervous, renal, hepatic, pulmonary, lymphatic, endocrine, digestive, muscular and skeletal systems. Prerequisite(s): Must be admitted to Cardiovascular Technology – Invasive program (10-521-1). Complete CVTECH-102, CVTECH-110, CVTECH-115 and CVTECH-117.

CVTECH-137 Credits: 4

Invasive CVT Fundamentals 2

This course further exposes the student to the profession of the cardiovascular technologist (CVT). Through the utilization of lectures and hands-on laboratory instruction, students will expand their working knowledge of diagnostic and interventional procedures, hemodynamic monitoring, sterile technique, radiation and personal safety, radiographic imaging principles, specialized technologies, electrophysiology, implantable devices and radiographic image panning. Prerequisite(s): CVTECH-120.

CVTECH – DENHYG

CVTECH-138 Credits: 4

Invasive CVT Clinical 1

This course presents the student with his or her first opportunity in a direct patient care setting, while beginning to perform the duties of a CVT. Here the student will be able to correlate didactic and laboratory classes with the day-to-day duties of a CVT. Prerequisite(s): Complete CVTECH-120.

CVTECH-142 Credits: 3

Echo Case Review

In this course, multiple cardiac pathologies will be studied and addressed through the presentation of echocardiographic case studies. Students will explore a variety of pathologies and how these anomalies can be evaluated through the utilization of cardiac sonography. This course will primarily involve the presentation of case studies and the assessment of clinical abnormalities as seen by cardiac imaging and advanced Doppler techniques. Prerequisite(s): Complete CVTECH-140, CVTECH-144, CVTECH-145 and CVTECH-149.

CVTECH-143 Credits: 3

Ultrasound Principles and Physics

This course provides the basic knowledge of the physical principles and instrumentation of diagnostic ultrasound. Topics covered in this lecture course include transducers, color-flow imaging methodology, bioeffects and acoustic output labeling standards. Students will be introduced to how diagnostic ultrasound works, how to properly handle artifacts, scan safely, evaluate instrument performance and ultimately prepare for board and registry examinations. Prerequisite(s): Complete CVTECH-149.

CVTECH-144 Credits: 3

Advanced Echo Practicum

The structure and function of the cardiac system will be addressed by introducing the specialized techniques of noninvasive cardiovascular testing. There will be an evaluation of cardiovascular sonographic anatomy and physiology through advanced measurement techniques of specified hemodynamic parameters. This course will explore various pathologies and how these anomalies are evaluated by echocardiography. The student will learn how to assess clinical abnormalities of the human heart as it is seen by cardiac imaging and advanced Doppler techniques. Prerequisite(s): Complete CVTECH-121.

CVTECH-145 Credits: 4

Echocardiography Fundamentals

The structure and function of the cardiac system will be addressed, as well as how various pathologies and congenital anomalies are demonstrated and evaluated by echocardiography. Students learn how to assess clinical abnormalities of the human heart as it is seen by cardiac imaging, utilizing conventional and echocardiographic stress testing, intravascular. Prerequisite(s): Complete CVTECH-121.

CVTECH-149 Credits: 2

Echocardiography Clinical Experience 1

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the echocardiographic clinical setting. A written journal detailing the clinical phase of the instruction will be required. Prerequisite(s): Complete CVTECH-121.

CVTECH-185 Credits: 2

Invasive CVT Clinical Seminar

Students will discuss with other students the cases most recently performed during their clinical experience. Research papers will be required on a variety of related topics, as well as a review of the written journal detailing the clinical phase of instruction. This course will help to prepare students for the written examinations, which lead to credentialing in their chosen specialty. Guest speakers may be scheduled. Resume writing and interview skills will be covered. Prerequisite(s): Complete CVTECH-138.

CVTECH-188 Credits: 3

Invasive CVT Clinical Experience 2

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the clinical setting in the student's choice of cardiovascular technology discipline. Prerequisite(s): Completion of or currently enrolled in CVTECH-185.

CVTECH-189 Credits: 3

Invasive CVT Clinical Experience 3

This course is a continuation of CVTECH-188 and provides the practical application to perfect the skills and knowledge through a wider range of cases. Students begin to take a more active and responsible part in the day-to-day tasks associated with clinical duties. Prerequisite(s): Complete CVTECH-188. Must be admitted to the Cardiovascular Technology – Invasive program (10-521-1).

CVTECH-195 Credits: 2

Echocardiography Clinical Seminar

Students will discuss the cases most recently performed during their clinical experience. Research papers will be required on a variety of related topics as well as a review of the clinical phase of instruction. This course will help to prepare students for the written Registry examination. Guest speakers may be scheduled. Resume writing and interview skills will be covered. Prerequisite(s): Complete CVTECH-149.

CVTECH-196 Credits: 4

Echocardiography Clinical Experience 2

This course provides the practical application of the principles covered in the didactic and laboratory portions of the program. Students observe, assist and perform duties assigned in the echocardiographic clinical setting. Prerequisite(s): Completion of or currently enrolled in CVTECH-195.

CVTECH-197 Credits: 4

Echocardiography Clinical Experience 3

The course is a continuation of CVTECH-196 and provides the practical application to perfect the skills and knowledge through a wider range of cases. Students begin to take a more active and responsible part in the day-to-day tasks associated with their clinical duties. Prerequisite(s): Complete CVTECH-196.

DCC – Digital Content Creation (Department 508)

DCC-150 Credits: 3

Introduction to Digital Content Creation

This core course introduces digital content creation — the process of creating stories for emerging multiplatform delivery. The course examines the importance of traditional video production techniques/applications within emerging content delivery, also the similarities and differences between broadcasting and multiplatform delivery, long- and short-form production and large/small screen presentation. Learners differentiate between forms via “hands-on exploration.” Students become familiar with the technology used to implement promotional schemes for successful digital content distribution (e.g. via the web, social media outlets and mobile technology). Prerequisite(s): Completion of or currently enrolled in TV-101 and TV-181.

DCC-152 Credits: 3

Intermediate Digital Content Techniques

This course focuses on the principles of design and operation of video systems as incorporated in multimedia, interactive and web design. This includes understanding, choosing and operating appropriate video cameras, digital SLRs, lighting techniques, audio acquisition and non-linear editing. Students will produce and post-produce several productions of increasing complexity for multi-platform delivery as it pertains to digital content creation. Prerequisite(s): Completion of or currently enrolled in TV-105.

DCC-153 Credits: 3

Digital Content Creation Practicum

This course prepares students to work in the digital content field by giving them practical, structured and real-life job experiences in a nonthreatening, student-centric and instructor-led environment. The fundamentals of teamwork, client relations and self-paced and directed creative applications of technology and organization are emphasized. Job search techniques and job site observations are also discussed. Milwaukee PBS digital and social outlets will serve as practical labs and content repositories for students whenever possible. Prerequisite(s): Completion of or currently enrolled in DCC-152.

DCC-154 Credits: 3

Digital Content Engagement

As new media and technology evolve, students will need to not only problem-solve with current electronic tools, but also with an eye toward the

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future. This course will focus on the students' application of their visual content creation skills and understanding of existing hardware and software to design an emultiplatform presence using those current tools. Additionally, students will be challenged to anticipate the next wave of potential content distributors and plan for seamless multi-versioned delivery of their message using the technology of the future. Prerequisite(s): Completion of or currently enrolled in DCC-153.

DCC-155 Credits: 3

Advanced Tech/Digital Content Creation

Students will learn how to incorporate their basic and intermediary understanding of multiplatform delivery of audio/visual content with the advanced tools of the trade. Multi-versioning of content is emphasized, permitting the student producer to understand how to take concept to creation via air, web, podcasting, social media, etc. Students produce a selected multimedia project and deliver it via these various media outlets. An eye toward future technologies and techniques is emphasized, encouraging students to challenge existing views and develop innovative new solutions. Prerequisite(s): Completion of or currently enrolled in DCC-153 and DCC-154.

DCC-158 Credits: 1

Data Content Management

This course is an introduction to data, metadata and the myriad of media files utilized in digital media storytelling. It introduces the student to concepts associated with the capture, editing, manipulation and distribution of files designed specifically for media and its delivery. Also, the learner will become competent in data asset management, file integration, understanding codecs and resolution, and transcoding and consolidation techniques through practical application in digital audio and video production. Prerequisite(s): Complete DCC-150. Completion of or currently enrolled in DCC-152.

DCC-159 Credits: 2

Streaming Content Creation

This course explores the development, workflow, organization and production of digital streaming media from acquisition to editing to distribution to archive and analytics. Utilizing video streaming and audio podcasting approaches and technologies, the learner will become competent in identifying and using the appropriate digital tools for creating programming for digital consumption, with a focus on storytelling and livestreamed events. Prerequisite(s): Complete DCC-150. Completion of or currently enrolled in the DCC-152.

DCC-171 Credits: 1

Digital Engineering Principles

This course is an introduction to the digital systems, file flow and streaming technologies associated with the delivery of digital transmission of audio and video content over the web, social platforms and other multiplatform streams. It introduces the student to IT and IP media, NLE architecture, additional concepts

associated with digital media delivery and the process of troubleshooting such systems. Prerequisite(s): Complete DCC-152 and TV-142.

DENAST – Dental Assistant (Department 508)

DENAST-302 Credits: 5

Dental Chairside

This course prepares Dental Assistant students to chart oral cavity structures, dental pathology and restorations and to assist a dentist with basic dental procedures including examinations, pain control, and restorative and cosmetic procedures. Students will also develop the ability to educate patients about preventive dentistry, brushing and flossing techniques and dental procedures using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology. Prerequisite(s): Must be admitted to the Dental Assistant program (30-508-2). Completion of or currently enrolled in DENAST-304, DENAST-305, DENAST-307 and DENHYG-101.

DENAST-304 Credits: 2

Dental and General Anatomy

This course prepares Dental Assistant students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients. Prerequisite(s): Must be admitted to the Dental Assistant program (30-508-2).

DENAST-305 Credits: 2

Applied Dental Radiography

Students develop skill in operation of X-ray units and in exposing bitewing, periapical, extra oral and occlusal radiographs. Emphasis is placed on protection against X-ray hazards. Students will also process, mount and evaluate radiographs for diagnostic value. In this course, students demonstrate competency on a mannequin. In addition, students will expose bitewing radiographs on an adult patient. Prerequisite(s): Completion of or currently enrolled in DENAST-304 and DENHYG-101.

DENAST-306 Credits: 3

Dental Assistant Clinical

Students apply skills developed in dental and general anatomy, dental health safety, dental chairside, dental materials, dental radiography, and professionalism in a clinical setting with patients. Emphasizes integration of career essentials and basic occupational skills. Prerequisite(s): Completion of or currently enrolled in DENAST-302, DENAST-304, DENAST-307, DENHYG-101, DENHYG-113, and either DENHYG-103 or DENAST-305.

DENAST-307 Credits: 1

Dental Assistant Professional

This course prepares Dental Assistant students for professional success in a dental practice or other dental healthcare environment. Students develop a professional appearance and image. More importantly, they learn to work within ethical guidelines and legal frameworks. In preparation for entering the workforce, dental assistants

develop or customize their portfolios and layout in an ongoing professional development plan. Prerequisite(s): Must be admitted to the Dental Assistant program (30-508-2).

DENHYG – Dental Hygiene (Department 508)

DENHYG-101 Credits: 1

Dental Health Safety

Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA standards and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. CPR certification is a prerequisite; students will be required to show proof of certification before beginning the course. This course is a WTCS aligned course required in both the Dental Hygienist and Dental Assistant programs.

DENHYG-102 Credits: 4

Oral Anatomy, Embry Histology

Prepares Dental Hygiene students to apply detailed knowledge about oral anatomy to planning, implementation, assessment and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head and neck anatomy, and its relationship to tooth development, eruption and health. Prerequisite(s): Complete BIOSCI-177, CHEM-186 or BIOSCI-197 with minimum grade of B-. Also, complete DENHYG-101. Completion of or currently enrolled in DENHYG-105.

DENHYG-103 Credits: 2

Dental Radiography

Prepares dental auxiliary students to operate X-ray units and expose bitewing, periapical, extra oral, and occlusal images. Emphasis is placed on protection against X-ray hazards. Students also scan, process, mount, and evaluate dental images for diagnostic value, and interpret radiographic information. In this course, students demonstrate competency on a mannequin and perform image receptor placement on a peer. In addition, students expose a full mouth series and double bitewing images on a patient. This course also provides the background in radiographic theory required for students to make informed decisions, adjustments, and to communicate this information to faculty, staff, and patients. Prerequisite(s): Completion of or currently enrolled in DENHYG-102.

DENHYG-105 Credits: 4

Dental Hygiene Process 1

Introduces Dental Hygiene students to the basic technical/clinical skills required of practicing dental hygienists including use of basic dental equipment, examination of patients and procedures within the dental unit. Under the direct supervision of an instructor, students integrate hands-on skills with entry-level critical thinking and problem-solving skills. The course also reinforces the application of dental health safety skills. Prerequisite(s): Completion of or currently enrolled in DENHYG-103. Must be admitted to the Dental Hygiene program (10-508-1).

DENHYG – DIETNT

DENHYG-106 Credits: 4

Dental Hygiene Process 2

This clinical course builds on and expands the technical/clinical skills student dental hygienists began developing in Dental Hygiene Process I. Under the direct supervision of an instructor, students apply patient care assessment, planning, implementation and evaluation skills to provide comprehensive care for calculus case type 1 and 2 patients and perio case type 0, I and II patients. Prerequisite(s): Complete DENHYG-102, DENHYG-103 and DENHYG-105.

DENHYG-107 Credits: 1

Dental Hygiene Ethics and Professionalism

Helps student dental hygienists develop and apply high professional and ethical standards. Students apply the laws that govern the practice of dental hygiene to their work with patients, other members of a dental team and the community. Emphasis is placed on maintaining professionalism, which includes confidentiality and informed consent. Prerequisite(s): Completion of or currently enrolled in DENHYG-101.

DENHYG-108 Credits: 3

Periodontology

This course prepares student dental hygienists to assess the periodontal health of patients, plan prevention and treatment of periodontal disease, and to evaluate the effectiveness of periodontal treatment plans. Emphasis is placed on the recognition of the signs and causes of periodontal disease and on selection of treatments and modalities that minimize risk and restore periodontal health. Prerequisite(s): Completion of or currently enrolled in DENHYG-106.

DENHYG-109 Credits: 1

Cariology

This course focuses on the characteristics and contributing factors of dental decay. Dental Hygiene students help patients minimize caries risk by developing treatment plans, communicating methods to patients and evaluating treatment results. Prerequisite(s): Complete BIOSCI-197 and CHEM-186. Completion of or currently enrolled in DENHYG-110 and DENHYG-106.

DENHYG-110 Credits: 2

Nutrition and Dental Health

Prepares student dental hygienists to counsel patients about diet and its impact on oral health. Students learn to distinguish between balanced and unbalanced diets and to construct diets that meet the needs of patients with compromised dental/oral health. Students also learn to counsel patients about the effect of eating disorders on dental health. Prerequisite(s): Completion of or currently enrolled in DENHYG-101.

DENHYG-111 Credits: 3

General and Oral Pathology

This course prepares the student dental hygienist to determine when to consult, treat or refer clients with various disease, infection or physiological conditions. Students learn to recognize the signs, causes and implications of common pathological conditions including inflammatory responses, immune disorders, genetic disorders,

developmental disorders of tissues and cysts, oral tissue trauma, and neoplasm of the oral cavity. Prerequisite(s): Complete DENHYG-102, DENHYG-103, and DENHYG-105. Must be enrolled in a dental hygiene program in an accredited technical, community or four-year college, or with instructor's permission.

DENHYG-112 Credits: 5

Dental Hygiene Process 3

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process 2. In consultation with the instructor, students apply independent problem-solving skills in the course of providing comprehensive care for calculus case type 1, 2 and 3 patients and case type 0, I, II, and III patients. Dental Hygiene Process 3 introduces root detoxification using hand and ultrasonic instruments, laser bacterial reduction, selection of dental implant prophylaxis treatment options, and administration of chemotherapeutic agents. Students also adapt care plans to accommodate patients with special needs. Prerequisite(s): Complete DENHYG-106, DENHYG-108, DENHYG-109 and DENHYG-110. Completion of or currently enrolled in DENHYG-111.

DENHYG-113 Credits: 2

Dental Materials

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products and impression materials. They also learn to take alginate impressions on mannequins and peers, and to clean removable appliances. Prerequisite(s): Completion of or currently enrolled in DENHYG-102 or DENAST-302.

DENHYG-114 Credits: 2

Dental Pharmacology

Prepares student dental hygienists to select safe and effective patient premedication within the scope of dental hygiene practice. Students will also learn to recognize potential pharmacological contraindications for specific patients and to take measures to avoid negative impact or alert other members of the dental team to possible negative impact. Prerequisite(s): Completion of or currently enrolled in DENHYG106.

DENHYG-115 Credits: 2

Community Dental Health

This course prepares the dental hygienist student to play a proactive role in improving the dental health of community members of all ages. Students perform and interpret dental health research to determine community dental health needs. They also participate in the development, implementation and evaluation of a community dental health program. Prerequisite(s): Completion of or currently enrolled in DENHYG-112.

DENHYG-117 Credits: 4

Dental Hygiene Process 4

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene process III. With feedback from the instructor, students manage

all aspects of cases in the course of providing comprehensive care for calculus case type 0, 1, 2 and 3 patients and for perio case type 0, I, II and III patients. Emphasizes maximization of clinical efficiency and effectiveness. Prepares student dental hygienists to demonstrate their clinical skills in a formal examination situation. Prerequisite(s): Completion of or currently enrolled in DENHYG 113, DENHYG-114 and DENHYG 118.

DENHYG-118 Credits: 2

Dental Anxiety and Pain Management

This course prepares student dental hygienists to work within the scope of dental hygiene practice to manage anxiety and pain for dental patients. Students learn to prepare and administer local anesthesia and nitrous oxide safely. The course also addresses the recommendation of alternative pain control measures. Prerequisite(s): Completion of or currently enrolled in DENHYG-112 and DENHYG-114.

DENHYG-130 Credits: 1

Dental Hygiene: Transition Into Practice

This course will prepare students to transition from the dental hygiene educational setting to the career of dental hygiene. Students will prepare for various licensure examinations, prepare for the job search, develop an understanding of cultural competency and the benefits of an ADHA membership, examine how to manage workplace conflict resolution, understand dental insurance related concepts, and investigate additional dental hygiene degree completion pathways. Prerequisite(s): Completion of or currently enrolled in DENHYG-117.

DENHYG-165 Credits: 1

Clinical Dental Hygiene Practicum

This skills laboratory will offer students the opportunity to enhance patient treatment skills developed during DENHYG-105, DENHYG-106 and DENHYG-112. Instruction will be tailored to individual student skills and abilities along with patient treatment needs. Prerequisite(s): Must be admitted to the Dental Hygiene program (10-508-1). Complete DENHYG 102, DENHYG 103 and DENHYG 105.

DIESEL – Diesel (Department 412)

DIESEL-301 Credits: 2

Diesel Fuel Systems

Students will perform diagnosis, testing and repair procedures on diesel engine fuel system mechanical components. Prerequisite(s): Must be admitted to the Diesel and Powertrain Servicing program (31-412-3).

DIESEL-306 Credits: 5

Engine Construction and Installation

Students will perform maintenance, adjustments, diagnosis, testing and engine construction. Students will remove and install an engine using the appropriate service manual procedures. Prerequisite(s): Complete DIESEL-301 and DIESEL-307.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

DIESEL-307 Credits: 5

Electrical/Electronic Shop

Students become proficient in the use of digital volt/ohm meters (DVOM) and specialized test equipment used for diagnosing electrical/electronic systems. Students will perform diagnosis, testing and repairs using proper service manual procedures. Prerequisite(s): Must be admitted to the Diesel and Powertrain Servicing program (31-412-3).

DIESEL-308 Credits: 1

CNG Engine Operations Heavy Duty Application

This course covers the principle of operation, maintenance and diagnosis of heavy-duty CNG engines. It utilizes the Cummins ISL-G engine as the basis for the instruction. Prerequisite(s): Complete DIESEL-301 and DIESEL-307.

DIESEL-319 Credits: 5

Driveline Components

Students will perform service procedures on heavy-duty clutch assemblies, manual transmissions, automatic transmissions, differentials and power dividers. Service procedures include maintenance, adjustments, diagnosis, testing, removal, disassembly, assembly and installation. Prerequisite(s): Completion of or currently enrolled in DIESEL-307 and DIESEL-345.

DIESEL-333 Credits: 2

Heavy Truck HVAC Systems

Students will learn the theory and operation of vehicle heating, ventilation and air conditioning (HVAC) systems. Manual and electronic controls, air distribution and A/C system operation are the focus. Students will learn federal and state laws that pertain to refrigerant usage in vehicle A/C systems. This includes identifying, recycling, recovering, storing and selling refrigerants. Prerequisite(s): Complete DIESEL-307.

DIESEL-338 Credits: 2

Emission Control Systems

Students perform diagnosis and testing of emission systems on mechanical and electronically controlled diesel engines. There will be an emphasis on computer controlled fuel system diagnosis, testing and repair. Prerequisite(s): Complete DIESEL-307 and DIESEL-301.

DIESEL-341 Credits: 5

Front-End, Brake and Suspension Systems

Students will perform diagnosis, testing and repair procedures of various types of steering and suspension systems, wheel alignment and heavy truck brake systems. Course content includes ABS (anti-lock brake systems) diagnosis, testing and repair. Prerequisite(s): Complete DIESEL-307.

DIESEL-345 Credits: 2

Preventive Maintenance

Students will perform preventive maintenance inspections (PMI) on vehicles using industry standard procedures. Students will gain an understanding of the proper materials, procedures, safe handling and documentation needed to perform a PMI. Prerequisite(s): Completion of or currently enrolled in DIESEL-307 and DIESEL-319.

DIETNT – Dietetic Technician (Department 313)

DIETNT-102 Credits: 3

Public Health Nutrition

Integrates the critical nature of nutrition in maintaining healthy populations. Learner examines basic research, nutrition assistance, food aid, nutrition education, school meals, food fortification, assessment and surveillance. Public health strategies target populations and focus on prevention. Learner also identifies strategies for reducing the consequences of disparities. Prerequisite(s): Complete HEALTH-101, HEALTH-104 and HEALTH-110.

DIETNT-106 Credits: 2

Food Service Sanitation

Professional standards and practices in the prevention of food-borne illnesses are presented. Students prepare for the National Restaurant Association ServSafe Certification exam. FDA food code is reviewed. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

DIETNT-108 Credits: 3

Food Service Management 1

Basic principles of procurement, production, distribution and service, as well as applied management principles required to deliver food and nutrition programs, are studied. Prerequisite(s): Completion of or currently enrolled in DIETNT-106 or CULMGT-112 or the ServSafe Certification.

DIETNT-109 Credits: 3

Food Science

Students utilize scientific and medical nutrition therapy principles involved in the preparation of food to provide optimum nutrition and palatability. Laboratory preparation techniques emphasize food quality, sanitation and safety. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

DIETNT-118 Credits: 1

Food Service Management 1 Coordinated Practice

Basic principles of food service management, human resource management, and sanitation are applied in a clinical setting. This course meets the food service management requirement of the Dietary Manager program. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) and instructor consent. Complete one of the following courses: CULART-100, CULMGT-112, or DIETNT-106. Completion of or currently enrolled in DIETNT-108.

DIETNT-123 Credits: 1

Dietetic Technician Orientation

The policies of MATC, the Healthcare Pathway, the Nutrition and Dietetic Technician program, and the Academy of Nutrition and Dietetics are explained. Students identify and observe

standards of practice to function with the healthcare team and to understand the healthcare system. Math calculations and vital signs used in nutritional assessment are introduced. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

DIETNT-124 Credits: 3

Medical Nutrition Therapy 1

Students learn to access, plan, implement and evaluate the nutritional and educational needs of individuals at low to moderate nutritional risk. Prerequisite(s): Must be admitted to Dietetic Technician program (10-313-1). Complete DIETNT-151 and DIETNT-123. Completion of or currently enrolled in DIETNT-152 and DIETNT-160.

DIETNT-125 Credits: 4

Medical Nutrition Therapy 2

A continuation of Medical Nutrition Therapy (MNT) 1, with emphasis on conditions of moderate to high nutritional risk. Students also evaluate the relevant scientific literature and develop personal resource files for professional practice. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-124 and DIETNT-134.

DIETNT-134 Credits: 1

Medical Nutrition Therapy 1 Coordinated Practice

Students learn through clinic activities to assess, plan, implement and evaluate the medical nutrition therapy (MNT) for conditions in adults at low to moderate risk in acute health care facilities. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-123 and DIETNT-151 with a minimum grade of C. Completion of or currently enrolled in DIETNT-152 and DIETNT-160.

DIETNT-135 Credits: 2

Medical Nutrition Therapy 2 Coordinated Practice

Students obtain clinical experiences in coordination with DIETNT-125 didactic learning activities in the classroom. Students learn, through clinic activities, to assess, plan, implement, and evaluate the medical nutrition therapy (MNT) of patients in acute care, long term care, and outpatient settings. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-123, DIETNT-124, DIETNT-151 and DIETNT-152. Completion of or currently enrolled in DIETNT-125.

DIETNT – DMS

DIETNT-136 Credits: 3

Medical Nutrition Therapy Field Experience

Through clinical experiences, students apply medical nutrition therapy and community principles in a healthcare facility or community health program. Career opportunities and preparation for the Commission on Dietetic Registration (CDR) exam will be discussed in a lecture format. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Complete DIETNT-106, DIETNT-107, DIETNT-123, DIETNT-151, DIETNT-160, DIETNT-108, DIETNT-118, DIETNT-124, DIETNT-134, DIETNT-152, DIETNT-156, DIETNT-166, DIETNT-125, DIETNT-135, DIETNT-157, DIETNT-167 and DIETNT-155. Completion of or currently enrolled in DIETNT-146 and DIETNT-170.

DIETNT-146 Credits: 3

Food and Nutrition Management Field Experience

Through clinical experiences, students apply management principles by completing department projects according to pertinent regulatory standards. Career opportunities and preparation for the Commission on Dietetic Registration (CDR) exam will be discussed in a lecture format. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician Program (10-313-1). Complete DIETNT-106, DIETNT-107, DIETNT-123, DIETNT-151, DIETNT-160, DIETNT-108, DIETNT-118, DIETNT-124, DIETNT-134, DIETNT-152, DIETNT-156, DIETNT-166, DIETNT-125, DIETNT-135 and DIETNT-157. Completion of or currently enrolled in DIETNT-136 and DIETNT-170.

DIETNT-151 Credits: 4

Nutrition for Dietetics

This course is a study of nutrients and the nutritional care process, including application to a clinic/lab supervised by a qualified preceptor. This course meets the nutrition care requirement of the Dietary Manager program. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

DIETNT-152 Credits: 3

Physiology for Dietetics

The physiology of human organ systems will be studied as it relates to nutrient requirements in health and disease. Organ systems emphasized include renal, liver, gastrointestinal, musculoskeletal, endocrine, nervous, sensory, lymphatic, respiratory and cardiovascular. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Completion of or currently enrolled in DIETNT-160.

DIETNT-155 Credits: 3

Community Nutrition

This course exposes the student to the available nutrition and health resources in the community including the utilization of local, state and federal nutrition education and food supplement programs. It prepares the student to identify the

nutritional and educational needs of community groups to plan and develop culturally appropriate nutrition interventions that involve health promotion and disease prevention. The student learns through material discussions, service learning projects, guest speakers, skill-building activities and field trips. Prerequisite(s): Complete DIETNT-151 or HEALTH-110. Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) or Community Health and Nutrition Navigator program (10-539-3).

DIETNT-156 Credits: 2

Nutrition in the Life Cycle

The nutrient and nutritional counseling needs for normal growth and optimal health throughout the life cycle are explored. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) or the Community Health and Nutrition Navigator program (10-539-3). Completion of or currently enrolled in DIETNT-151 or HEALTH-110.

DIETNT-157 Credits: 3

Food Service Management 2

Students learn management techniques in planning, organizing, controlling, delegating and communicating to meet the needs of the various healthcare systems and their regulatory agencies. Prerequisite(s): Complete DIETNT-108, DIETNT-118 and DIETNT-106 or ServeSafe Certification. Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

DIETNT-160 Credits: 1

Medical Terminology for the Dietetic Technician

Students study the components of medical words to learn medical terminology for communication with the members of the health care team. Emphasis is placed on recognition, pronunciation, definition and spelling of terms and abbreviations. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1).

DIETNT-166 Credits: 1

Nutrition in the Life Cycle: Coordinated Practice

The nutrient and nutritional counseling needs for normal growth and optimal health throughout the life cycle are explored. Students develop and implement teaching plans for the various age groups in the clinical experience. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1). Completion of or currently enrolled in DIETNT-156.

DIETNT-167 Credits: 2

Food Service Management 2 Coordinated Practice

Through clinic experiences, students learn modern management techniques to select and train employees, maintain departmental records, purchase food and supplies, supervise meal service, plan meetings, analyze, correct problems and develop interdepartmental communication. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician

program (10-313-1). Complete DIETNT-108, DIETNT-118 and DIETNT-106 or ServSafe Certification. Completion of or currently enrolled in DIETNT-157.

DIETNT-170 Credits: 2

Nutritional Counseling Skills

The role of the nutrition therapist is studied to develop counseling relationships with clients in order to achieve behavior change for improved nutritional health. Prerequisite(s): Must be admitted to the Nutrition and Dietetic Technician program (10-313-1) or the Community Health and Nutrition Navigator program (10-539-3).

DLABT – Dental Technician (Department 507)

DLABT-102 Credits: 5

Dental Anatomy

Theoretical and practical study of dentition. The focus of this course is the study of anatomy, morphology, structure, and function of dentition and the oral cavity including functional waxing techniques and reproduction of anatomical forms. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-113.

DLABT-111 Credits: 5

Introduction to Complete Dentures

Theoretical and practical study. This course is an introduction to complete dentures. The focus of this course is on removable techniques with complete denture fabrication. Prerequisite(s): Complete DLABT-102 and DLABT-113. Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-114.

DLABT-113 Credits: 2

Dental Technology Materials

Theoretical study of dental technology related materials. Focus will include guidelines regarding OSHA, NADL and ADA. Prerequisite(s): Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-102.

DLABT-114 Credits: 1

Principle of Occlusion

This course addresses the principles of occlusion and their application to fabrication of dental prosthesis. Prerequisite(s): Complete DLABT-102 and DLABT-113. Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-111.

DLABT-115 Credits: 2

CAD/CAM in Dentistry

Introduces the theory and practice of fabricating dental prosthesis digitally through the use of computer aided design/computer aided manufacturing. Prerequisite(s): Complete DLABT-111 and DLABT-114. Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-121.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

DLABT-117 Credits: 1

Dental Tech Professionalism

Highlights ethical, legal and historical aspects of dentistry and dental lab technology with a focus on dental laboratory management techniques. Prerequisite(s): Complete DLABT-121 and DLABT-115. Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-129.

DLABT-121 Credits: 5

Introduction to Crown and Bridge

Theoretical and practical study. This course is an introduction to fixed prosthodontics. The focus of this course is on crown and bridge techniques with metal based restorations. Prerequisite(s): Complete DLABT-111 and DLABT-114. Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-115.

DLABT-129 Credits: 5

All Ceramic Techniques

Theoretical and practical study. This course is an introduction to fixed prosthodontics. The focus of this course is on crown and bridge techniques with all ceramic based restorations. Prerequisite(s): Complete DLABT-121 and DLABT-115. Must be admitted to the Dental Technician program (31-507-1). Completion of or currently enrolled in DLABT-117.

DMS – Diagnostic Medical Sonographer (Department 526)

DMS-200 Credits: 3

Introduction to DMS

Introduces learners to the field of diagnostic medical sonography. Explores the duties and functions of the diagnostic medical sonographer as well as the historical background. Learners examine the other imaging modalities as they relate to sonography. Includes principles of patient care and legal and ethical issues related to sonography. Prerequisite(s): Must be admitted to the Cardiovascular Technology — Echocardiography program (10-521-2).

DMS-203 Credits: 1

Scanning With Proficiency

Prepares learners for the rigors of clinical imaging by performing timed abdominal and gynecological competencies. Prerequisite(s): Complete DMS-207, DMS-208 and DMS-221. Must be admitted to the Diagnostic Medical Sonography program (10-526-2).

DMS-207 Credits: 4

Abdominal Sonography

Prepares learners to perform ultrasounds of the abdominal organs including liver, gallbladder, biliary tree, pancreas, spleen, urinary tract, aorta and retroperitoneum. Emphasis is placed on recognizing the anatomy and pathology of the abdominal organs. Practice scan sessions

included. Prerequisite(s): Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-200 BIOSCI-177 and BIOSCI-179.

DMS-208 Credits: 3

OB/GYN Sonography 1

Prepares learners to perform ultrasounds of the nongravid uterus and the first-trimester pregnancy. Explores the anatomy, physiology and pathology of the female reproductive system as well as intrauterine and ectopic pregnancies. Prerequisite(s): Complete BIOSCI-177 and BIOSCI-179. Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Completion of or currently enrolled in DMS-200.

DMS-209 Credits: 2

DMS Clinical Experience 1

Opportunities to apply scanning skills in a clinical setting. Students concentrate efforts on ultrasound examination of the abdominal organs. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Complete DMS-207, DMS-208 and DMS-221. Must be admitted to the Diagnostic Medical Sonography program (10-526-2).

DMS-210 Credits: 2

Cross Sectional Anatomy

Introduces cross sectional anatomy as related to diagnostic medical sonography. Includes correlating images from other imaging modalities. Prerequisite(s): Must be admitted to the Radiography (10-526-1) or the Diagnostic Medical Sonography (10-526-2) programs. Complete BIOSCI-179 or RADT-193.

DMS-211 Credits: 2

Superficial Sonography

Investigates superficial structure imaging. Includes anatomy, pathophysiology and sonographic evaluation. Prepares learner to perform ultrasounds of the thyroid, breast, male reproductive system, musculoskeletal system and GI tract. Prerequisite(s): Complete DMS-207, DMS-221 and DMS-210. Must be admitted to the Diagnostic Medical Sonography program (10-526-2).

DMS-212 Credits: 3

OB/GYN Sonography 2

Prepares learners to perform ultrasounds of the second- and third-trimester pregnancy. Explores the anatomy, physiology, and pathology of the female pelvis and the developing fetus. Learners will be exposed to interventional procedures related to pregnancy. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-208.

DMS-217 Credits: 2

Registry Review

Review of the competencies covered in the Diagnostic Medical Sonography program. This course prepares students to sit for nationally recognized registry exams and includes test-taking strategies and skills that will equip

the graduates for entry level employment.

Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-213.

DMS-220 Credits: 5

DMS Clinical Experience 2

This second-level clinical experience course continues to prepare DMS students to perform sonographic exams on patients with varying degrees of assistance. Students apply scanning skills in a healthcare setting while adhering to the sonographers code of ethics. Students continue to improve technical skills while accepting more responsibilities during scanning procedures. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-209.

DMS-221 Credits: 3

Sonography Physics 1

Introduces physics and instrumentation relevant to diagnostic medical sonography. Learners explore how principles of sound propagation in tissues create a sonographic image. Prerequisite(s): Must be admitted to the Cardiovascular Technology — Echocardiography program (10-521-2) or Diagnostic Medical Sonography program (10-526-2). Completion of or currently enrolled in DMS-200.

DMS-222 Credits: 2

Sonography Physics 2

Continues the study of physics and instrumentation relevant to diagnostic medical sonography. The laboratory component of this course introduces the student to the concepts of ultrasound instrumentation, an introduction to ultrasonic scanning technique, and maintenance of ultrasound equipment. Prerequisite(s): Must be enrolled in the Cardiovascular Technology — Echocardiography program (10-521-2) or Diagnostic Medical Sonography program (10-526-2). Complete DMS-221.

DMS-223 Credits: 3

Vascular Imaging 1

Introduces the principles of vascular sonographic imaging. Learners perform a variety of peripheral vascular arterial and venous duplex exams. Prerequisite(s): Complete DMS-221. Must be admitted to the Diagnostic Medical Sonography program (10-526-2).

DMS-224 Credits: 3

Vascular Imaging 2

Prepares learners to perform abdominal vascular and physiologic peripheral vascular exams. Prerequisite(s): Complete DMS-223. Must be admitted to the Diagnostic Medical Sonography program (10-526-2).

DMS – ELCTEC

DMS-225 **Credits: 3**

DMS Clinical Experience 3

This third-level clinical experience course continues to prepare DMS students to perform sonographic exams on patients with limited direct and mainly indirect supervision. Students apply scanning skills in a healthcare setting while adhering to the sonographers code of ethics. Students continue to improve technical skills while accepting more responsibilities during scanning procedures. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-220. Completion of or currently enrolled in DMS-229.

DMS-229 **Credits: 2**

DMS Clinical Experience 4

This final clinical experience course is a continuation of DMS-215, which requires DMS students to integrate and apply all knowledge learned in previous courses to the production of high-quality images in the clinical setting. DMS students perform sonographic exams on patients with limited direct and mainly indirect supervision. Students apply scanning skills in a healthcare setting while adhering to the sonographers code of ethics. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Participation in this course will take place at a hospital or clinic. Prerequisite(s): Must be admitted to the Diagnostic Medical Sonography program (10-526-2). Complete DMS-220. Completion of or currently enrolled in DMS-225.

ECON – Economics **(Department 809)**

ECON-195 **Credits: 3** **Economics**

This course is designed to give an overview of how market-oriented economic systems operate, and it surveys the factors which influence national economic policies. Basic concepts and analysis are illustrated by reference to verity of contemporary problems and public issues. Concepts include scarcity, alternative economic system, growth, supply and demand, monetary and fiscal policy, inflation, unemployment, ecological, and global economic issues.

ECON-201 **Credits: 3** **Principles of Microeconomics**

This course covers the following topics: price mechanisms, price determination in the products and factors markets, analysis of market structures, business decisions with regard to cost analysis, output determinations and employing factors of production. Other topics such as regulation vs. deregulation, international trade and economic development will also be discussed.

ECON-202 **Credits: 3** **Principles of Macroeconomics**

This course covers national income and product analysis, financial institutions and the Federal

Reserve System and macroeconomic models and their application to the problems of inflation, unemployment and business fluctuations. The lines between economic problems, theory and public policy are emphasized.

ECON-215 **Credits: 3** **Economics of Discrimination**

Economic theory is used to examine discrimination with an emphasis on the labor market and inequality in the U.S. Topics include fundamental economic theory, the labor market, the basis and measurement of discrimination, inequality, and the laws and policies relating to discrimination.

ECON-216 **Credits: 3** **Urban Economics**

Urban Economics provides research about the built environment. Using the tools of economic analysis, Urban Economics describes the outcomes of public and private decision-making with regard to land use and clusters of populations and their transportation. Prerequisite(s): Complete ECON-195, ECON-201 or ECON-202.

ECON-218 **Credits: 3** **International Economics**

Explores theories of trade, barriers and benefits to trade, exchange rate systems, the role of central banks, trade deficits and surpluses and balance of payments.

ECON-219 **Credits: 3** **Personal Finance and Consumer Economics**

This course is designed to provide the necessary knowledge to make the student more informed about personal finances and to help develop lifelong habits in planning, spending, saving and consumption decision-making.

ECON-223 **Credits: 3** **Ecological Economics**

This course explores basic economic principles in the market-oriented global economy, including the limits to growth resulting from limited natural resources. Analyzes the mixed economy, which is a combination of private enterprise and government actions. Explains how an economy can achieve both a comfortable standard of living and ecological sustainability.

ECON-225 **Credits: 3** **Healthcare Economics**

Healthcare Economics is a basic course in economics with an emphasis in healthcare. Topics include supply and demand, cost/benefit, resource allocation and production as well as the conditions under which healthcare is provided by government.

EDF – Education **Foundations** **(Department 522)**

EDF-102 **Credits: 3** **EDU: Techniques in Reading**

The purpose of this course is to provide students with a solid foundation for effective literacy

instruction in K-9 grade classrooms. The course will focus on the major five elements of reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension. Phonological awareness will also be addressed. This course will review research-based teaching strategies, instructional materials as well as methods and assessments for effective and inclusive literacy instruction.

EDF-103 **Credits: 3** **EDU: Introduction to Educational Practices**

Students analyze pre-K-12 education in the United States, determine roles and responsibilities of school personnel, and explore current trends and best practices. Students identify how students learn and the foundations of lesson planning. Students analyze assessment strategies, classroom management, and techniques for supporting learners.

EDF-104 **Credits: 3** **EDU: Technology in Education**

The focus of this course is for students to teach and learn with information and technology rather than about information and technology. The Wisconsin Department of Public Instruction (DPI) states that “Information and technology literacy is the ability of a teacher, working independently or with others, to use tools, resources, processes, and systems responsibly to access and evaluate information in any medium, and to use that information to solve problems, communicate clearly, make informed decisions, and construct new knowledge, products, or systems.” Students will analyze all aspects of information and technology literacy as well as begin their digital professional teaching portfolio.

EDF-105 **Credits: 3** **Behavior Management**

Students analyze the behavior of students in educational settings. Emphasis will be given to examining the influences on behavior and creating proactive learning environments through behavioral interventions and support. Students will evaluate strategies for creating a safe and supportive classroom environment.

EDF-106 **Credits: 3** **EDU: Child and Adolescent Development**

Students will analyze the physical, cognitive and social-emotional development of children with an emphasis on school-age children and adolescents. Students will examine environmental factors that influence child development. Developmental theories will be summarized and related to current teaching practices.

EDF-107 **Credits: 3** **EDU: Overview of Special Education**

Students examine a historical overview of special education and special education law, including special education disability categories as defined by the Individuals with Disabilities Education Act (IDEA). Students explore state and federal qualifications, special education criteria, and societal responses to students with disabilities. Students examine the impact of a student with disabilities on family dynamics and the role school personnel play in supporting students with disabilities.

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EDF-112 Credits: 3

EDU: Equity In Education

Students analyze personal culture, explore cultural constructs, evaluate cultural bias in educational materials and analyze strategies to support English learners. Students examine diversity in the classroom and develop techniques for supporting equity in the learning environment. In addition, students collaborate to identify service needs in the community and demonstrate professional collaboration skills through participating in a service learning project.

EDF-114 Credits: 3

EDU: Techniques in Language Arts

Students will be introduced to the science and art of teaching language arts. Evidence-based approaches and assessments will be examined and practiced. Students will create a literature file through the exploration of a variety of children's/young adult literature.

EDF-118 Credits: 3

EDU: Techniques in Math

Students learn key terminology and research-based strategies to support learners in math domains: numbers, base ten operations, algebraic thinking, geometry, probability/statistics and measurement and data. Current practice, including manipulatives, problem-solving and assessment, will be covered within the framework of state and national standards.

EDF-119 Credits: 3

EDU: Techniques in Social Studies

Students analyze current content in social studies education as recommended by the National Council for the Social Studies and Wisconsin DPI. Students design learning opportunities for the five content areas of social studies: geography, history, behavioral sciences (culture and society), political science (civics and government), and economics that incorporate the social studies inquiry practices and processes. Students receive training on the history, culture, and tribal sovereignty of Wisconsin's 11 federally-recognized American Indian nations and tribal communities. Act 31 and the Holocaust and other genocides (Act 30) to meet Wisconsin teacher standards and teaching requirements.

EDF-120 Credits: 3

EDU: Techniques in Science

Students are introduced to the content and processes of teaching science. Students explore science processes, strategies, procedures, assessment options and factors affecting science learning. Students practice strategies for assisting with group and individual activities in science. This course provides a foundation in the concepts and models of hands-on, student-centered science and its assessment as described in Wisconsin DPI science standards and Next Generation Science Standards (NGSS).

EDF-124 Credits: 3

EDU: Supporting Students With Disabilities

Students identify research-based interventions for learners in categories defined by the Individuals with Disabilities Education Act (IDEA). Students interpret Individualized Educational

Programs and examine special education-related services available for learners. Students collect data to document student behavior and academic performance and recommend program adaptations and accommodations for students with disabilities, while applying the concepts of least restrictive environment and inclusion.

EDF-129 Credits: 3

EDU: Practicum 1

Students apply the skills learned in previous program courses in a school setting while under the supervision of a teacher certified by the Department of Public Instruction. Students support learners while demonstrating professionalism. Students begin the reflective process.

EDF-131 Credits: 3

EDU: Practicum 2

Students apply the skills learned in previous program courses in a school setting while under the supervision of a teacher certified by the Department of Public Instruction. Students support learners and while demonstrating professionalism. Students apply job search skills

EDF-249 Credits: 2

Orientation to Urban Teaching

This course is designed for students who are interested in exploring a career in urban K-12 teaching. Students learn about themselves in relationship to the children they may teach. Students explore different licensure areas and the pathways toward becoming a teacher. Readings and topics are chosen in order to explore how race, class, and ethnicity affect the dynamics of teaching-learning relationships in schools.

EDF-253 Credits: 3

Issues in Urban Teaching

This course is designed to expose you to issues in urban education. Some of you may have already spent considerable time in classrooms as teacher aides or paraprofessionals, or maybe even as teachers. The majority of us spent time in schools as students. Now we are preparing to enter the vital and rewarding field of teaching. As we prepare for this role reversal, we must have a deeper understanding of schooling, particularly in urban settings, so that we can begin to tackle the challenges we will face both within and outside of the classroom. Throughout this course, we will challenge one another to grow not only in our understanding of the issues that affect urban education, but also insofar as our own personal philosophies of teaching are constantly evolving. Service-learning is a vehicle we will use to get hands-on experience tackling issues impacting urban education. Prerequisite(s): Complete EDF-249 or SOCSOI-249 with minimum grade of C.

EDF-254 Credits: 2

Field Experience in Urban K-12 Classrooms

This is a field experience service learning course that provides students who are completing the Teacher Education Track to (1) deepen their understanding of how race, language, and socioeconomic status impact teaching and learning, (2) observe and participate in

classroom management strategies, (3) become familiar with the organization, culture, and curriculum of schools and classrooms in the Milwaukee Public Schools system. Students complete 40+ hours of observation, which is accepted towards fieldwork requirements at several Schools of Education. Prerequisite(s): Complete EDF-253 or SOCSOI-253. Also, a TB test and criminal background check are required for school placement.

EDF-255 Credits: 3

Introduction to Teaching

This course is intended for students who wish to pursue a degree in education at a four-year college. The course introduces students to the profession of education and the roles of teachers. It provides an understanding of the context in which education is delivered in culturally pluralistic settings and an opportunity to gain knowledge and experience in the interpersonal, observational and organizational skills that underlie teaching. Prerequisite(s): Complete EDF-253. Completion of or currently enrolled in EDF-254.

ELCTEC – Electronics (Department 605)

ELCTEC-100 Credits: 2

Electronics Internship/Co-Op 1

This course provides the first opportunity to gain on-the-job training related to the electronics program in which the student is enrolled. The activities will be coordinated between the employer, the student and the MATC internship/co-op coordinator. Prerequisite(s): Complete ELCTEC-110 and ELCTEC-130.

ELCTEC-101 Credits: 2

Electronics Internship/Co-Op 2

This course provides the second opportunity to gain on-the-job training related to the electronics program in which the student is enrolled. The activities will be coordinated between the employer, the student, and the MATC internship/co-op coordinator. Prerequisite(s): Complete ELCTEC-100.

ELCTEC-105 Credits: 3

Advanced Circuits (DC/AC 3)

Advanced circuit analysis concepts and techniques that are used by electronic engineering technologists are emphasized in this course. Advanced AC complex number-based circuit analysis techniques are applied to series-parallel circuits, superposition, complex power, nodal analysis, Thevenin's and Norton's theorems, ideal operational amplifier circuits, circuits containing equivalent circuit models of sensors and actuators, frequency response analysis, and balanced three-phase circuits. Laboratory, simulation, and documentation experiences reinforce the lecture material. Prerequisite(s): Complete ELCTEC-111 or ELCTEC-116 and ELCTEC-120 or ELCTEC-118 and MATH-197 or MATH-230. Completion of or currently enrolled in ELCTEC-121.

ELCTEC – ELECTY

ELCTEC-106 Credits: 3

Advanced Electronics (ECA)

This course covers advanced topics associated with the analysis of electronic devices and circuits. Fundamental mathematical modeling and applications of solid-state devices and operational amplifiers include device characteristics of p-n junction diodes, bipolar junction transistors (BJT), and metal oxide semiconductor field effect transistors (MOSFET); analysis of diode circuits, linear power supplies, and transistor switching circuits; and an introduction to design in the context of single-stage MOSFET amplifiers and operational amplifiers in standard configurations. Laboratory, simulation, and documentation experiences reinforce the lecture material. Prerequisite(s): Complete ELCTEC-105 or ELCTEC-112 and ELCTEC-121.

ELCTEC-108 Credits: 2

Fundamentals of DC/AC 1

This course is designed for students interested in electronics technology while enhancing their basic skills in mathematics. General mathematical and algebraic skills will be reinforced while being introduced to circuits, using Ohm's Law and associated principles. Hands-on circuit building exercises, basic electronic instruments, and report writing will be emphasized in the lab. Prerequisite(s): Completion of or currently enrolled in MATH-113.

ELCTEC-110 Credits: 4

DC/AC Electronics 1

An introductory course that presents the scientific foundation used throughout electronics technology. Topics include DC/AC forms of current, voltage, resistance, capacitance, inductance, and power. Troubleshooting practices will be emphasized and computer technologies will be used to enhance abstract theory. Students perform laboratory experiments and prepare technical reports. Prerequisite(s): Completion of or currently enrolled in MATH-115, MATH-202, MATH-230, MATH-231 or MATH-232.

ELCTEC-111 Credits: 3

DC/AC Electronics 2

An extension of and enhancement to DC and AC Electronics 1. More advanced topics such as complex networks, applicable theorems, polyphase systems, and passive filters will be discussed. Computer simulation software will be used to reinforce theoretical analyses. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115. Completion of or currently enrolled in MATH-116.

ELCTEC-115 Credits: 4

DC and AC Electronics 1 – Interactive

This is an alternative delivery, interactive course equivalent to ELCTEC-110. Theory presented via multimedia is reinforced by lab experimentation and written technical reports. Prerequisite(s): Completion of or currently enrolled in MATH-115.

ELCTEC-116 Credits: 3

DC and AC Electronics 2 – Interactive

This is an alternative delivery, interactive course equivalent to ELCTEC-111. Theory presented via multimedia is reinforced by lab experimentation and written technical reports. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115. Completion of or currently enrolled in MATH-116.

ELCTEC-117 Credits: 3

Digital Electronics – Interactive

This is an alternative delivery, interactive course equivalent to ELCTEC-130. Theory presented via multimedia is reinforced by lab experimentation and written technical reports. Prerequisite(s): Completion of or currently enrolled in ELCTEC-115 and MATH-115.

ELCTEC-118 Credits: 4

Electronic Devices–Interactive

This is an alternative delivery, interactive course equivalent to ELCTEC-120. Theory presented via multimedia is reinforced by lab experimentation and written technical reports. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115. Completion of or currently enrolled in MATH-116 and ELCTEC-116.

ELCTEC-120 Credits: 4

Electronic Devices

The basic operating principles of diodes, transistors, thyristors and linear integrated circuits are presented as they are used in rectifier, amplifier, and oscillator circuits. Theory is reinforced with laboratory assembly, measurements, troubleshooting, and technical report writing. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115. Completion of or currently enrolled in MATH-116 and ELCTEC-111.

ELCTEC-121 Credits: 3

Electronic Devices Advanced

This course is a continuation of ELCTEC-120 with additional emphasis on transistor models, IC amplifiers, oscillators, active filters, integrators and differentiators, waveshaping and control circuits. Circuit theory is reinforced with laboratory activities and technical report writing. Prerequisite(s): Complete ELCTEC-118 or ELCTEC-120.

ELCTEC-130 Credits: 3

Digital Electronics

This is an introductory course in digital logic devices and circuits. Students learn the basic logic functions, sequential and synchronous logic circuitry, general applications and troubleshooting techniques through hands-on lab work. The computer will be used to generate circuit simulations and technical reports. Prerequisite(s): Completion of or currently enrolled in MATGEN-110, MATH-115, MATH-202, MATH-230 or MATH-231.

ELCTEC-131 Credits: 3

Advanced Digital Electronics

This is a continuation of Digital Electronics. It provides an in-depth study of logic family

specifications, sequential circuits, A/D and D/A, as well as PLD operation and design. Design procedures and design verifications will be demonstrated. Laboratory work will help students gain skill and competence in digital circuit design and troubleshooting. Prerequisite(s): Complete ELCTEC-117 or ELCTEC-130. Completion of or currently enrolled in ELCTEC-120.

ELCTEC-133 Credits: 4

Medical Imaging Equipment

Students develop a foundation in the field of medical imaging with a focus on X-ray systems service. Topics include applications and equipment theory for radiographic, fluoroscopic, vascular, and cardiac imaging systems. Classroom knowledge is enhanced through hands-on lab activities that replicate real work situations. Students will calibrate, troubleshoot, and repair a variety of radiographic and mammographic equipment. Prerequisite(s): Complete ELCTEC-134, ELCTEC-137 and BIOSCI-177. Completion of or currently enrolled in ELCTEC-176.

ELCTEC-134 Credits: 4

Biomedical Instrumentation

Students are introduced to the fundamentals of biomedical instrumentation and associated technologies. System and safety tests and measurements are performed using typical equipment found in area healthcare facilities. Students reinforce theoretical concepts while developing practical troubleshooting skills. Prerequisite(s): Complete ELCTEC-111 or ELCTEC-116 and ELCTEC-120 or ELCTEC-118 and BIOSCI-177 and ENG-197 or ENG-208. Completion of or currently enrolled in ELCTEC-140.

ELCTEC-137 Credits: 2

Biomedical Electronics Technician Practicum 1

Students are assigned to area hospitals or clinical technicians to assist with preventive maintenance, calibration and repair of medical equipment. The use and operation of basic test equipment is introduced along with guidelines for properly documenting procedures. Prerequisite(s): Completion of or currently enrolled in ELCTEC-134.

ELCTEC-138 Credits: 2

Biomedical Electronics Technician Practicum 2

Under the supervision of hospital or clinic technicians, students enhance their skills by troubleshooting patient care and diagnostic equipment, and various medical imaging systems. Prerequisite(s): Complete ELCTEC-137 and ELCTEC-134. Completion of or currently enrolled in ELCTEC-133.

ELCTEC-139 Credits: 3

Advanced Biomedical Electronics

This course is designed to help prepare students in the biomedical electronics field for taking related professional certification exams. Equipment demonstrations, along with in-depth technical discussions, will culminate internship

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experiences and previous classroom instruction as it relates to biomedical equipment technician certification. Prerequisite(s): Completion of or currently enrolled in ELCTEC-133 and ELCTEC-138.

ELCTEC-140 Credits: 3 **Microprocessors**

Students apply microprocessor and bus concepts by designing and building a parallel port, serial port, memory board and other modules that interface to an Intel-based PC system. Diagnostic software is written and oscilloscope measurements are made to test and troubleshoot interfaces built in the lab. Prerequisite(s): Complete either ELCTEC-110 or ELCTEC-115, and ELCTEC-130 or ELCTEC-117.

ELCTEC-141 Credits: 3 **Microcontrollers**

This course covers the operation and applications of microcontrollers. Programming and interfacing of these devices and their peripherals are discussed in lecture and experienced in laboratory projects. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

ELCTEC-150 Credits: 3 **Data Communications and Networking**

This course extends the concepts of digital and analog signals to data communication and networking applications. Conceptual topics include network topology, the principles of signaling on physical links, transmission media, data formatting, Analog-to-Digital (A-to-D) conversion, multiplexing, modulation using digital data, error control, flow control, local area networks, and Ethernet protocols. The laboratory includes experiments on A-to-D conversion, data communication signaling, and error control. Prerequisite(s): Complete ELCTEC-111 and ELCTEC-120.

ELCTEC-172 Credits: 3 **Input/Output Programming**

Students develop C programming language and Intel microprocessor language programs that monitor and control keyboards, displays, printers, serial devices, and disk drives. To perform these tasks efficiently, a library of input/output functions is built that consists of ROM BIOS, operating system, and student-written function calls. Prerequisite(s): Complete ELCTEC-173 and ELCTEC-174.

ELCTEC-173 Credits: 3 **Computing With C**

This course is a survey of computer programming and operation. The C programming language is introduced, with emphasis on developing an initial understanding of the architecture common to all computers. The C language becomes a tool in subsequent computer courses. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119. Completion or currently enrolled in MATH-115, MATH-202 or MATH-230.

ELCTEC-174 Credits: 3 **Hardware Systems**

Students install, configure, upgrade, maintain, repair and learn the theory and operation of current computer hardware. Modular level troubleshooting techniques are introduced and developed. Computers, printers, displays and other devices are disassembled, analyzed and assembled. Technical manuals and the Internet are used to obtain current computer technical documentation. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

ELCTEC-176 Credits: 3 **Computer Networks**

Students install, configure, test and solve compatibility problems with networked workstations and servers. Print servers, TCP/IP printers, routers, switches and other network devices are installed, configured for security and tested. Web, FTP, DHCP and DNS services are added and tested on Windows and Netware servers. Fundamental user and group management tasks are performed. Various communications media and technologies are studied. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

ELCTEC-178 Credits: 3 **Software Systems**

Students install the current Windows operating systems, then add service packs, security, critical updates, printer and network services, and other essential components. Configuration, maintenance, troubleshooting, and repair tools, integrated into Windows, are examined and utilized. Command line tools are also used. The iMac OS X operating system is installed, upgraded, and maintained. The internet is used as a tool to obtain drivers and technical information. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

ELCTEC-179 Credits: 3 **Advanced Computer Systems**

Students learn and practice powerful strategies to identify, isolate and correct failing hardware and software at the component and modular levels. Windows is installed using alternate methods including unattended installation and cloning. Students install the Linux operating system, add web and FTP services, create and manage users and groups, and write scripts. Prerequisite(s): Completion of or currently enrolled in MATGEN-109. Must be admitted to one of the Electronic programs (10-605-1, 10-605-3, 10-605-6 or 10-605-7).

ELCTEC-186 Credits: 1 **Fabrication Techniques**

This course is a practical approach to construction/repair of electronic equipment. Topics include shop safety, soldering techniques including SMDs, connectors, fasteners, ESD control, use of hand and power tools, PC board layout, schematic interpretation, and industrial/military standards. The course includes projects in which theories of topics are applied. Prerequisite(s): Complete ELCTEC-110 or ELCTEC-115.

ELCTEC-192 Credits: 2 **Fluid Power**

Students are introduced to symbology, diagram logic, operation and application of various hydraulic/pneumatic devices used on an automated machine or automated process as they apply to electronic technology. Prerequisite(s): Complete ELCTEC-140 or ELCTEC-119.

ELCTEC-195 Credits: 4 **Motor Controls**

This course covers the operational characteristics of DC and AC motors and generators, motor drives, transformers, PLC integration, and servo drives with particular emphasis on applications. A short study of renewable energy systems is included. Prerequisite(s): Complete ELCTEC-111.

ELCTEC-196 Credits: 3 **PLC Systems Basic**

This course is a study of programmable controllers. The history and principles of operation and the installation, programming and maintenance of the programmable controller are covered in lecture, demonstration, and laboratory exercises. Prerequisite(s): Complete ELCTEC-110 and ELCTEC-130.

ELCTEC-198 Credits: 3 **PLC Systems Advanced**

This course is a study of advanced programmable controller concepts. The advanced features and instructions of the programmable controller are covered in lecture, demonstration and laboratory exercises. The student applies these concepts to interface the PLC to HMI equipment, Robots, VFD motor controls and various communication protocols. Prerequisite(s): Complete ELCTEC-196.

ELCTEC-199 Credits: 3 **Automated Systems**

Built upon knowledge of machinery and control fundamentals from previous courses, the student will develop a systems approach to the control of manufacturing operations and industrial process. Systems are analyzed using block diagrams with programmable controllers and robotics incorporated into the systems. Prerequisite(s): Complete ELCTEC-195 and ELCTEC-196. Completion of or currently enrolled in ELCTEC-192.

ELECTY – Electricity (Department 413)

ELECTY-308 Credits: 2 **Basic Skills for Electrical Wiring**

Students learn the basic skills and basic code rules used in the electrical trade. Several of these skills are developed by repetition while wiring practical lighting control circuits. Prerequisite(s): Completion of or currently enrolled in ELECTY-392 or ELECTY-390. Must be admitted to the Electricity (31-413-1) or Manufacturing Maintenance (32-462-1) programs.

ELECTY- EMS

ELECTY-310 Credits: 2

Cable Wiring

Trade skills are developed through installing, connecting and controlling the common types of lighting circuits using metal-clad and nonmetallic sheathed cable. The work consists of practical shop jobs. Application of electrical code rules pertaining to concealed wiring is part of each job. Prerequisite(s): Completion of or currently enrolled in ELECTY-308. Must be admitted to Electricity program (31-413-1).

ELECTY-312 Credits: 2

Electrical Raceway Installation

Training is given in the use of hand benders. Mechanical benders, hydraulic benders and wire pulling techniques are covered. The bending skills are utilized by doing several typical conduit installation jobs. Prerequisite(s): Must be admitted to the Electricity program (31-413-1). Completion of or currently enrolled in ELECTY-308.

ELECTY-314 Credits: 1

Electrical Service Installation

Practical experience is provided in wiring, installing and connecting the various types of services for lighting, heating and power. A study is made of single-phase and three-phase service requirements and code rules applicable to service installations. Prerequisite(s): Complete ELECTY-392, ELECTY-308 and ELECTY-340.

ELECTY-318 Credits: 5

Electrical Power Distribution 1A

This course is an introduction to electrical power distribution systems. Emphasis is on the setting and securing of poles, mounting equipment on the poles and the stringing of power lines. Students work on in-class mock-ups and on real-height, outdoor setups. Safety is emphasized. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2).

ELECTY-319 Credits: 4

Electrical Power Distribution 1B

This course is an introduction to electrical power distribution systems. Emphasis is on the setting and securing of poles, mounting equipment on the poles, and the stringing of power lines. Students work on in-class mock-ups and on real-height, outdoor setups. Safety is emphasized. Prerequisite(s): Complete ELECTY-318.

ELECTY-320 Credits: 4

Electrical Principles and Applied Math 1

An introduction to basic electrical principles includes a review of arithmetic and the basics of algebra, which are applied to the solution of electrical problems. The course provides an introduction to DC circuits. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2). Completion of or currently enrolled in ELECTY-319.

ELECTY-321 Credits: 2

Line Mechanic Rescue and Safety

Instruction in pole-top rescue, safety, accident prevention and analysis, electrical shock treatment and accident reporting. Standardized

basic first responder and CPR training are included. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2). Completion of or currently enrolled in ELECTY-319.

ELECTY-322 Credits: 5

Electrical Power Distribution 2A

This course is a continuation of Electrical Power Distribution 1 with emphasis on modification of existing installations and live work. The student reads maps and system plans. Maintaining systems clearance and the use of chain saws are covered. Prerequisite(s): Complete ELECTY-319.

ELECTY-323 Credits: 4

Electrical Power Distribution 2B

This course is a continuation of ELECTY-322 and features underground (URD) and street lighting systems. Prerequisite(s): Complete ELECTY-322.

ELECTY-324 Credits: 4

Electrical Principles and Applied Math 2

This course continues and concludes the study of DC circuits. This is followed by an introduction to trigonometry with applications to AC circuits and devices. Prerequisite(s): Must be admitted to Electrical Power Distribution/Line Mechanic program (31-413-2). Completion of or currently enrolled in ELECTY-323.

ELECTY-328 Credits: 2

Electric Motor Control Wiring

Motor control diagrams are analyzed. Shop jobs are applied to control circuits. Motor control wiring skills are developed. Prerequisite(s): Complete ELECTY-392, ELECTY-308 and ELECTY-340.

ELECTY-340 Credits: 2

Electrical Code Fundamentals 1

A study is made of the code rules used most frequently by practicing electricians so that students may acquire a working knowledge of those rules. Methods for locating topics in the NEC are studied. The learner performs various types of calculations. Prerequisite(s): Must be admitted to the Electricity program (31-413-1). Completion of or currently enrolled in ELECTY-392 or ELECTY-390 and ELECTY-391, or an electrician with a working knowledge of electricity.

ELECTY-341 Credits: 1

Electrical Code Fundamentals 2

The learner will perform a comprehensive review of the NEC® and Wisconsin SPS 316 and will further develop skill in code interpretations and code calculations, as applied to all phases of electrical work. Prerequisite(s): Complete ELECTY-340 or other code-related experience; electricians currently working in the field.

ELECTY-378 Credits: 1

Construction Blueprint Reading

Students study the various types of drawings used in building construction. The reading and interpretation of not only the electrical plan, but also the structural, plot floor, plumbing, sheet metal, and other plans are presented.

Prerequisite(s): Must be admitted to the Electricity program (31-413-1). Completion of or currently enrolled in ELECTY-308.

ELECTY-382 Credits: 1

Electrical Equipment Circuit Analysis

The circuits, materials and installation of electrical equipment for residential heating, ventilating and air conditioning systems are studied. Various wiring diagrams are converted to practical installation layouts. Prerequisite(s): Complete ELECTY-392 or ELECTY-391.

ELECTY-384 Credits: 1

Electrical Design and Estimating

The student will draw on their knowledge from previous wiring courses to design and estimate several typical residential installations. Municipal electrical licensing requirements and applicable code articles are studied. Prerequisite(s): Complete ELECTY-310 and ELECTY-312.

ELECTY-386 Credits: 2

Solid State Devices

This course presents a comprehensive overview of solid state devices. Emphasis is on the practical applications of solid state power control. All lectures are backed up by a lab to assure understanding of concepts. Prerequisite(s): Complete ELECTY-392 or ELECTY-391.

ELECTY-390 Credits: 3

Principles of Electricity 1

This introductory course in DC/AC fundamentals offers hands-on experience in both the theoretical and practical phases of electricity. Developing skills and techniques associated with electrical circuits and test equipment will be emphasized.

ELECTY-391 Credits: 2

Principles of Electricity 2

This course is a continuation of Principles of Electricity 1. It provides a more in-depth study of DC/AC circuits with special emphasis on reactive circuits and power factor. In combination, the ELECTY-390 and ELECTY-391 course sequence equates in content to the five-credit ELECTY-392 course. Prerequisite(s): Complete ELECTY-390.

ELECTY-392 Credits: 5

Principles of Electricity

This course presents the fundamentals of direct and alternating current circuits. Various topics such as electrical instruments, electrical test procedures, and electrical symbols are covered. Lectures are reinforced by lab experiments. Required math topics are presented during the course. Prerequisite(s): Must be admitted to the Electricity program (31-413-1).

ELECTY-394 Credits: 4

Electrical Apparatus

This course covers the construction and principles of operation of transformers and both DC and AC motors and generators. Lab experiments are designed to verify operational characteristics by testing the various types of electrical apparatus. Prerequisite(s): Complete ELECTY-392 or ELECTY-391.

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ELECTY-396 Credits: 2

HVAC/R Electrical systems

This is a lab course designed to provide the heating, air conditioning and refrigeration student with hands-on experience in wiring mock-ups of HVAC/R systems. Students operate, analyze, describe sequences, and test these systems using various test instruments. Prerequisite(s): Completion of or currently enrolled in ELECTY-398.

ELECTY-397 Credits: 1

Electrical Wiring Methods for Air Conditioning and Refrigeration

This course is designed to familiarize the student with the wiring methods used for heating, air conditioning and refrigeration circuits. It also covers the use of wiring diagrams and the application of specifications and wiring codes.

ELECTY-398 Credits: 3

Electrical Circuits and Controls for HVAC/R

This course provides a practical knowledge of electricity, its measurement, and the circuits used in the field of heating, air conditioning and refrigeration. This is a theory course that covers the functions of electronic circuits and controls and explains servicing techniques and troubleshooting procedures.

EMS – Emergency Medical Services (Department 531)

EMS-192 Credits: 5 **EMT**

The Emergency Medical Technician course serves as a vital link in the chain of the healthcare team. The EMT can recognize the nature and seriousness of the patient condition or extent of the injuries to assess requirements for emergency medical care. The EMT will administer appropriate care based on assessment findings. The EMT will lift, move, position and otherwise handle and transport the patient to minimize discomfort and prevent further injury. Prerequisite(s): Must be admitted to either the Fire Protection Technician program (10-503-2) or the EMT program (30-531-3).

EMS-311 Credits: 4

Advanced EMT

EMT-Intermediate Technician students are Wisconsin licensed EMT-Basics seeking to upgrade their skills to the EMT Intermediate Technician level. EMT Intermediate Technician students perform emergency patient care, basic life support, and limited advanced life support in the field, transporting injured and ill patients to hospital emergency departments. They also perform care in hospital emergency departments. Prerequisite(s): Student must be admitted to the Advanced EMT program (30-531-6).

EMS-911 Credits: 2

EMS Fundamentals

This course provides the paramedic student with comprehensive knowledge of EMS systems, safety, well-being, legal issues, and ethical issues

with the intended outcome of improving the health of EMS personnel, patients, and the community. The students will obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention.

Introducing students to comprehensive anatomical and medical terminology and abbreviations will foster the development of effective written and oral communications with colleagues and other health care professionals. Prerequisite(s): Must be admitted to the Emergency Medical Technician-Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1).

EMS-912 Credits: 4

Paramedic Medical Principles

This course addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing the paramedic students to the topics of shock, immunology, and bleeding. Prerequisite(s): Completion of or currently enrolled in EMS-911. Must be admitted to the Emergency Medical Technician – Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1).

EMS-913 Credits: 3

Advanced Patient Assessment Principles

This course teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patients. Prerequisite(s): Completion of or currently enrolled in EMS-912. Must be admitted to the Emergency Medical Technician – Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1).

EMS-914 Credits: 3

Advanced Pre-Hospital Pharmacology

This course provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient. Prerequisite(s): Completion of or currently enrolled in EMS-913. Must be admitted to the Emergency Medical Technician – Paramedic program (31-531-1) or the Paramedic Technician program (10-531-1).

EMS-915 Credits: 2

Paramedic Respiratory Management

This course teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration

for patients of all ages. Specific knowledge pertaining to the respiratory system is also provided to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint. Prerequisite(s): Completion of or currently enrolled in EMS-914. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS-916 Credits: 4

Paramedic Cardiology

This course teaches the paramedic student to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a cardiovascular complaint. Prerequisite(s): Completion of or currently enrolled in EMS-915. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS-917 Credits: 3

Paramedic Clinical/Field 1

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and healthcare environment experiences with actual patients under the supervision of instructors or approved preceptor. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Prerequisite(s): Completion of or currently enrolled in EMS-916. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS-918 Credits: 1

Advanced Emergency Resuscitation

By teaching Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) methodologies and protocols, this course prepares the paramedic student in the integration of comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri arrest states with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible. Prerequisite(s): Complete EMS-917. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs. Completion of or currently enrolled in EMS-916.

EMS-919 Credits: 4

Paramedic Medical Emergencies

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint. Prerequisite(s): Complete EMS-916. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS – ENTREP

EMS-920 **Credits: 3**

Paramedic Trauma

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient. Prerequisite(s): Completion of or currently enrolled in EMS-916 and EMS-919. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS-921 **Credits: 3**

Special Patient Populations

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma, are also included within this course. Prerequisite(s): Completion of or currently enrolled in EMS-916 and EMS-920. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS-922 **Credits: 1**

EMS Operations

This course provides the paramedic student with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety. Prerequisite(s): Completion of or currently enrolled in EMS-921. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS-923 **Credits: 1**

Paramedic Capstone Assessment

This course provides the student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum. Prerequisite(s): Completion of or currently enrolled in EMS-922. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

EMS-924 **Credits: 4**

Paramedic Clinical/Field 2

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and healthcare environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS. Prerequisite(s):

Completion of or currently enrolled in EMS-919. Must be admitted to the Emergency Medical Technician (31-531-1) or the Paramedic Technician (10-531-1) programs.

ENG – English **(Department 801)**

ENG-141 **Credits: 3**

Introduction to Mass Communications

Explores communication in media and media literacy by providing insight into the important issues that confront students as consumers and purveyors of mass media within the workforce and in society. The mass media revolution, including media technologies, the evolution of media content and platforms, including new media, the impact of media communications on business and society as a whole, media bias, and media law and ethics form the basis of the course.

ENG-195 **Credits: 3**

Written Communication

Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments are designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents. Prerequisite(s): ACT Reading score ≥ 16 and an ACT English score ≥ 16 or Accuplacer Reading score ≥ 67 and an Accuplacer Sentence score ≥ 76 or high school GPA of ≥ 2.5 or current GED test score of ≥ 165 or completion of ENG-700 with grade of C or higher.

ENG-196 **Credits: 3**

Oral/Interpersonal Communication

Focuses on developing effective listening techniques and verbal and nonverbal communication skills through oral presentation, group activity, and other projects. The study of self, conflict, and cultural contexts will be explored, as well as their impact on communication. Prerequisite(s): Complete ENG-195, ENGE-195, ENGCR-195, ENG-201, ENGE-201, or ENGCR-201, with minimum grade of C or better.

ENG-197 **Credits: 3**

Technical Reporting

Prepare and present written, oral, and visual communication products, including instructions, proposals, informal and formal reports. Produce clear, usable communication by incorporating information design principles, arranging content to satisfy diverse audience needs, and presenting visuals for various contexts. Designed as an advanced course to develop collaborative communication practices, information literacy skills, and ethically responsible professional communication strategies. Prerequisite(s): Complete ENG-151, ENG-195, ENGE-195, ENGCR-195, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-201 **Credits: 3**

English 1

Introduces students to the basic principles of college-level composition, research, critical reading, and critical thinking with an emphasis on academic writing conventions. In addition to examining the content and structure of academic essays, instruction in sentence structure and usage is provided as needed. Written work for this course consists of essays that are expository and analytical in nature. Major attention also is given to the preparation and writing of a research essay through writing assignments that emphasize finding, evaluating, and incorporating appropriate secondary sources into students' written work. Prerequisite(s): ((Accuplacer Reading score ≥ 77 or an ACT Reading score ≥ 18) and (an Accuplacer Sentence score ≥ 89 or an ACT English score ≥ 18)) or (ENG-152 or ENG-200 with minimum grade of C).

ENG-202 **Credits: 3**

English 2

The intent is to give students training beyond ENG-201 in advanced composition, research, and critical thinking by reading a selection of literary genres chosen by the instructor. Students will increase their understanding and appreciation of the genres by analyzing and writing about prose fiction, drama, and poetry. Writing assignments and essays will consist of literary analysis, persuasion, and, when appropriate, the use of secondary sources. Major attention also is given to the preparation and writing of a research essay through writing assignments which emphasize finding, evaluating, and incorporating appropriate secondary sources into students' written work. Prerequisite(s): Complete ENG-151 or ENG-195 and ENG-152 or ENG-197 with minimum grade C or ENG-201 with minimum grade of C.

ENG-207 **Credits: 3**

Introduction to Creative Writing

The course will introduce students to the theory and practice of Creative Writing. Students will develop their reading and writing skills by working in a variety of literary genres, and by participating in small group writing workshops. Prerequisite(s): Complete ENG-151 or ENG-195, ENGE-195, ENG-201, or ENGE-201 with minimum grade of C.

ENG-208 **Credits: 3**

Technical Communications

This course introduces techniques and practices for writing, editing, and developing technical communications. Students generate a number of documents, including but not limited to technical reports, proposals, and instructions using a variety of formats, styles, strategies, and visuals. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-209 **Credits: 3**

Creative Writing: Fiction

This course will continue the student's development of fiction writing. Students will read professional examples of fiction and

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demonstrate techniques and practices of fiction writing. Prerequisite(s): Complete ENG-207 with minimum grade of C.

ENG-210 Credits: 3

Creative Writing: Poetry

This course will continue the student's development of poetry writing. Students will read professional examples of poetry and demonstrate techniques and practices of writing poetry. Prerequisite(s): Complete ENG-207 with minimum grade of C.

ENG-213 Credits: 3

American Literature to 1865

This course is an introduction to American writing from the age of exploration to the Civil War. Students will examine early literary sources and consider how literature reflects and influences the lives of those who have lived in what is now the United States. Approaches vary with instructor; materials studied are likely to include early Native American oral traditions and works by authors such as Adams, Bradstreet, Child, Dickinson, Douglass, Emerson, Franklin, Hawthorne, Jacobs, Melville, Murray, Poe, Rowlandson, Stowe, Thoreau, Wheatley, and Whitman. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-214 Credits: 3

American Literature Since 1865

This course is a survey of the American literary tradition from post-Civil War writers to the present. Students will read a range of major American authors in order to trace the development, influence, and practice of American literature. Authors may include Alexie, Baldwin, Cather, Chopin, Ellison, Erdrich, Faulkner, Frost, Gilman, Hemingway, Tan, Updike, and Walker. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-215 Credits: 3

Contemporary Literature

Students study diverse contemporary authors and their work, which includes poetry, short stories, the novel, drama, and nonfiction, both creative nonfiction and literary criticism. Historical, cultural, social, and political contexts of contemporary literature are considered. The main objectives of the course are to introduce techniques and practices for interpreting, appreciating, discussing, writing, and researching about contemporary literature and to help students improve existing skills for composing and revising written work. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-218 Credits: 3

African American Literature 1

African American literature written during the period from 1760 to 1940 is studied,

including slave narratives, poetry, short stories, speeches, and essays. Students will consider the literature within a sociohistorical context, including such topics as the background of the African American Renaissance, the Talented Tenth, double consciousness, the rise of the Black Intelligentsia, and the Harlem school.

This course will prepare students for critical thinking and academic writing about literature. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-219 Credits: 3

African American Literature 2

This course covers literature written after the Harlem Renaissance to the present. Students will consider the literature within a sociohistorical context and will discuss such topics as the Wright school, protest writers, raceless novels, novels and plays of African American life, the Black arts movement, and existentialism in African American letters. This course will prepare students for critical thinking and academic writing about literature. Students do not need to have completed English 218 in order to enroll. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-220 Credits: 3

Native American Literature

Students examine literary work by contemporary and traditional Native American writers and oral tradition storytellers. Wisconsin Indian history, culture, tribal sovereignty, and treaty rights will be covered within the context of literary analysis and critique. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-222 Credits: 3

Images of Women in Literature

The course provides examples of images of women in literature as a creative reflection of, description of, and reaction to their social, economic, familial, legal, and personal status both in the past and in the present. Students in the course will read and analyze literature to better understand the reasons and motivations for the portrayal of women in literary works that reflect cultural and historical values. Through literary analysis students will strengthen their understanding of how women's roles, and the perception of these roles, have or have not changed. Students in the course will demonstrate appreciation for the literature and reflect on the perceptions of women in literature and society. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197 or ENG-201 with minimum grade C.

ENG-223 Credits: 3

African American Literature By and About Black Women

This course provides a reflection of women's social, economic and legal status both past and present. The course analyzes and evaluates literature written by and about black women with the goal of focusing our critical energy

on recovering "her-story" as well as attaining keener insights into the important role of these women in both historical and contemporary life. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-224 Credits: 3

Introduction to U.S. Latino Literature

This course examines contemporary fiction, creative nonfiction, drama and poetry written by authors of Latin American descent. Students will learn about the contemporary sociocultural concerns experienced by the U.S. Latino population. Major attention also is given to literary analysis and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-235 Credits: 3

Utopian and Science Fiction Literature

A survey of selected utopian and science fiction literature that examines the various trends, themes, and subgenres in speculative fiction. The course concentrates on the use of these literary genres as a vehicle for social criticism and exploring contemporary concerns. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-240 Credits: 3

Introduction to Modern Cinema

An introductory course in contemporary films. Students view and discuss how films communicate. The course also considers the major theories of film. Out-of-class assignments include viewing and critiquing films. Major attention is also given to the preparation and writing of the research paper. Prerequisite(s): Complete ENG-152, ENG-197, ENG-201, ENGE-201 or ENGCR-201 with minimum grade of C.

ENG-340 Credits: 2

Workplace Communication

Workplace Communication focuses on listening, speaking, reading, and writing in an employment-related context. In addition, participants in this course will focus on career preparation and develop the interpersonal skills and workplace habits necessary to successfully transition from their role as a student in a vocational training program to an active job seeker.

ENTREP – Entrepreneurship (Department 145)

ENTREP-101 Credits: 3

Introduction to Entrepreneurship

This course takes the student from idea creation to development to monetization. Students will understand market forces, accentuate internal strengths, and evaluate market potential. Sections on building the management team, constructing operations, and financing the venture will be studied.

ENTREP – FIRE

ENTREP-102 Credits: 3

New Product Development

This course takes the idea for the product or service, researches the size of the market, and develops a plan to address the market. Understanding how the consumer values the product or service, and how to increase that usage or awareness will be stressed. Sections covered will be estimating the physical size or value of the market, pricing, creating a cohesive marketing plan, and building a distribution channel.

ENTREP-103 Credits: 3

Strategic Business Communication

This course develops the integrated marketing message via electronic and traditional methods. Once a product or service is designed, the next step is to build awareness through consistent means, mixing techniques to adapt and reach intended markets. Students will use a variety of different media to understand the potential of the tools. Students will explore the positioning of various products to utilize multiple channels to get the intended message to the proper segments. Students will create a media supportive strategy for the business by utilizing and exploring current trends in marketing.

ENTREP-104 Credits: 3

Business Plan

This course covers writing in detail the aspects of the business. Starting with the executive summary describing the venture, to the building of the management team, explaining the operations, targeting the market goals, and to projecting the detailed financials, a comprehensive document will be prepared. Accuracy and consistency of all sections of the plan will be expected.

ENTREP-105 Credits: 3

Strategic Business Comm 2

This course specifically develops the skills needed to present the business plan with slides, charts, and graphics. Public speaking and team building will be used to enhance the presentation. Networking events will create a level of professionalism.

ENVHEL – Environmental Health (Department 506)

ENVHEL-101 Credits: 3

Introduction to Environmental Health/Water Quality

This is an introductory course to the field of environmental health and water quality. This study will include air, water, soil, and food quality along with communicable and zoonotic diseases. The many career paths of the environmental practitioner include water quality, food safety, air quality, global environmental health, sustainability, energy conservation and related fields.

ENVHEL-102 Credits: 4

Environmental Biology

This course acquaints the student with basic principles of ecology pertinent to the field of environmental health with emphasis on

aquatic ecosystems (ponds, lakes, and streams). Various organisms are studied as indicators of environmental quality or degradation.

ENVHEL-104 Credits: 4

Industrial Hygiene Technology

This course deals with the anticipation, recognition, evaluation, and control of environmental factors in the workplace that affect the health, comfort, safety and well-being of workers and the community. Types of hazards include gases, vapors, particulates, and fumes. Occupational diseases and basic toxicology will be discussed as applicable. Prerequisite(s): Complete ENVHEL-101, ENVHEL-109 and MATH-107 or any 200-level MATH course.

ENVHEL-105 Credits: 4

Fundamentals of Hazardous Materials Control

The properties of materials commonly used in the workplace that are potentially hazardous to workers and the techniques of detection of those materials, along with proper methods of transporting, handling and disposal of those materials in the workplace are studied. Course includes the preparation and sitting for the WI DATCP Structural Pest Control 7.1 certification exam. Successful completion of required coursework and hours will result in the 8-HR OSHA Certification per 29 CFR 1910.120. Prerequisite(s): Complete ENVHEL-104.

ENVHEL-109 Credits: 4

Applied Environmental Chemistry

The applied approach to environmental chemistry provides students with a review of basic principles and laboratory techniques. The specialized focus includes environmentally related areas of water and wastewater, toxics, air, soil and hazardous materials.

ENVHEL-111 Credits: 4

Applied Water Chemistry and Analysis

A student in this course will perform sampling, measurement and interpretation both in the field and laboratory settings for the analysis of water resources. Water is treated and used in our daily lives for drinking water, municipal reclamation, manufacturing, industry, food, beverage, medical use, and survival of aquatic ecosystems. The course will provide students with a better understanding of water quality monitoring, water treatment and analyses through real-world practical quantitative water chemistry applications. This course will include chemical safety, approved methodology, instrumentation use, regulations, quality assurance and quality control concerns. Prerequisite(s): Complete ENVHEL-101, ENVHEL-102, ENVHEL-109, and MATH-107 or any 200-level MATH.

ENVHEL-115 Credits: 4

Air Quality

This study of the effects of air pollution includes the types of air pollution, their sources and their prevention and control. Various air pollution sampling techniques and air analysis methods are performed by the student. Prerequisite(s): Complete ENVHEL-101, ENVHEL-102 and ENVHEL-109.

ENVHEL-119 Credits: 3

Food and Dairy Safety

This course covers the application of sanitation principles necessary for food and milk protection. It includes preservation, distribution and serving of food and milk. Also covered are the microbiology of food-borne diseases, food code compliance, mild pasteurization, and testing. Prerequisite(s): Complete ENVHEL-101 and ENVHEL-173.

ENVHEL-127 Credits: 3

Environmental Field Projects

The goals of this course are to give participants advanced training in field techniques important to environmental health and water quality assessment and research. This course emphasizes field applications through lectures and field practices. Students will deal with actual environmental issues and complete projects associated with job-readiness, professionalism on the job, oral and written communication skills. Prerequisite(s): Complete ENVHEL-111 and ENVHEL-115.

ENVHEL-128 Credits: 1

Environmental Health Internship

Students will gain valuable work experience in the environmental health and water quality technology field. Students will utilize the knowledge, skills and techniques learned in the program at an approved work station under the guidance of the program instructor and employer. Prerequisite(s): Complete ENVHEL-111, ENVHEL-115 and INTRN-796.

ENVHEL-142 Credits: 3

Principles of Water Resources

This course is the study of water and its uses, which includes the history, types of surface water and groundwater sources, water quality, federal, state and local legislation, water conservation, and emerging water issues affecting human health and the environment.

ENVHEL-143 Credits: 3

Environmental Management and Communication

Instruction is provided to develop and/or enhance people skills essential to an environmental manager. Students will observe and apply a variety of environmental management strategies that includes NEPA, environmental impact assessments, sustainability, environmental policy, ISO 14001, and the necessary communications skills for effective and diversified management of principles determinants of environmental health. Prerequisite(s): Complete ENVHEL-111 and ENVHEL-115.

ENVHEL-145 Credits: 3

Water/Wastewater Operations – Municipal

Operational procedures and facilities used in municipal water supply treatment and wastewater/water reclamation treatment are studied. Methods of establishing and maintaining hydraulic flow and techniques for chemical treatment, nutrient removal and an overview of applicable regulations are integrated into the course. Field trips to local facilities are

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during class time in order to demonstrate various procedures and treatment process methods. Laboratory work may include demonstrations or hands-on testing.

ENVHEL-147 Credits: 3

Water/Wastewater Operations – Industrial

The process basics and operational procedures for treating industrial wastewater are studied. Emphasis is placed on proper operation and maintenance, chemical safety, sampling, remedial measures, waste minimization, recordkeeping, and typical wastewater treatment process problems encountered in both the industrial and the food and beverage industries. This course includes field trips. Prerequisite(s): Complete ENVHEL-145.

ENVHEL-173 Credits: 3

Environmental Bacteriology

Principles dealing with microbiological organisms, with emphasis on bacteriological applications to the environmental health field, are covered in this course. Students conduct laboratory procedures utilized in the field according to standard methods. Environmental parameters include water, milk, food, and inanimate surfaces. Interpretations of laboratory results are based on applicable standards.

EYI – Enhanced Yoga Instruction (Department 546)

EYI-101 Credits: 1

History and Foundation of Yoga

Basic overview of the history of yoga and the philosophies leading to the modern-day yoga practice, with emphasis on the yoga sutras. The fundamentals of both Sanskrit and medical terminology will be covered with focus on prefixes, suffixes, and root words. Symptomatic and therapeutic terms relating to the musculoskeletal system will be emphasized.

EYI-110 Credits: 3

Functional Movement

Examines anatomy and kinesiology with emphasis on the musculoskeletal system. Movements specific to yoga will be covered with application of knowledge useful for all movement modalities. Students will be able to apply knowledge to assess and assist future students/clients in functional alignment for injury prevention.

EYI-120 Credits: 2

Asana, Sequencing and Structure

Study of the archetypes of poses (asana), looking at anatomical function within each posture. Sanskrit will be reviewed for understanding of pose names. The fundamentals of the how and why of sequencing will be covered for each of the basic style of class: flow, hatha and yin. Students will prove their understanding of how to sequence a class by creating and teaching a flow, hatha, and yin class.

EYI-130 Credits: 2

Mindfulness and Meditation

Five basic forms of meditation will be taught, and students will then teach each form within a practical. Students will experience an eight-week mindfulness practice for application in their own lives in conjunction with learning how to lead students/clients in mindfulness practices.

EYI-140 Credits: 1

Business Ethics in Yoga

Students will learn the fundamentals of how to register with the Yoga Alliance and market themselves as a teacher. They will also learn how to conduct themselves within the scope of practice and within the ethical guidelines of the Yoga Alliance and healthcare professionals.

EYI-210 Credits: 2

Energetics and Subtle Body

Overview of the energetics of the body (chakras, koshas, and vayus). Pranayama (breath) practices and mudras will also be covered.

EYI-220 Credits: 3

Anatomical Variations

In-depth look at the skeletal variances within human anatomy and how that will affect students within the asana pose. Students will learn how to work with different disease processes, injuries, and special needs populations, growing skills for interdisciplinary collaboration.

EYI-230 Credits: 2

Teaching Methodology

This course will enable students to utilize a basic understanding of principles and methods of teaching to best serve their student base. The main focus will be on adult learners, but some basic information will be covered for teaching children.

EYI-240 Credits: 1

Adaptive Yoga

This course will cover the adaptation of the yoga practices (asana, mudra, and pranayama) to people with disabilities. Chronic illness as well as common injuries will also be addressed. Prerequisite(s): Complete EYI-311.

FIN – Finance (Department 114)

FIN-110 Credits: 3

Principles of Banking

An entry-level course designed to provide students who are new to banking a general understanding of the industry. Principles of Banking introduces fundamental banking concepts and principles, the basics of how banks operate as service providers and businesses, their obligation to operate in a safe and sound manner and manage risks, and the responsibilities of bank employees in a customer-focused financial services environment.

FIN-120 Credits: 3

Introduction to Money, Banking and Financial Markets

An introduction to the essential elements of money, banking and financial markets while emphasizing the relevance of each in the economy. Topics include financial markets and instruments, financial institutions, central banking, monetary policy and the Federal Reserve System, and business cycles. Prerequisite(s): Complete FIN-110 or ACCTG-111 and ECON-195 or any 200-level ECON course.

FIN-122 Credits: 3

Investment Principles

In this course, students are presented with the information, tools and guidance needed to make educated investing decisions. The investment simulation project provides hands-on experience stock trading and structuring a portfolio. Prerequisite(s): Complete ACCTG-110 or ACCTG-111.

FIN-170 Credits: 3

Credit Management

This course provides the knowledge and tools to establish, manage, analyze and control both consumer and business credit. Topics include the credit process, credit management policies and procedures, financial statement analysis, and regulation of consumer credit.

FIN-180 Credits: 3

Corporate Financial Management

Corporate Financial Management is a capstone course for the Banking and Financial Services program. Emphasis is placed on interpreting and analyzing financial statements and financing decisions. Course takes an analytical approach around the balance sheet and the impact business decisions have on it. Prerequisite(s): Complete ACCTG-113 and ACCTG-122.

FIRE – Fire Protection Technician (Department 503)

FIRE-104 Credits: 3

Fire Internship

This course provides an opportunity for students to experience learning, and insight into, fire department organization and procedures. Students are assigned to a local fire department, where they can apply knowledge and skills they learned in the classroom while performing the same duties as a working member of that department. Prerequisite(s): Complete EMS-301 or EMS-192.

FIRE-114 Credits: 3

Employability Skills

Employability Skills is a course designed to fine tune the student's skills, knowledge and abilities and apply them to the application or promotion process within the Fire Service. Prerequisite(s): Complete FIRE-142, FIRE-143, FIRE-153, FIRE-191, FIRE-192 and FIRE-193.

FIRE – FLANG

FIRE-142 Credits: 4

Firefighting Principles

Describes basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Students perform all practical evolutions necessary to control and extinguish fires and otherwise meet all requirements for Firefighter Level I certification with the State of Wisconsin. Prerequisite(s): Complete FIRE-143, FIRE-191, FIRE-192 and FIRE-193. Completion of or currently enrolled in FIRE-153.

FIRE-143 Credits: 3

Building Construction for Fire Protection

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations and operating at emergencies.

FIRE-144 Credits: 2

Advanced Firefighting Principles

This course builds on Fire Fighter Level I skills with multiple practical sessions including structural firefighting, vehicle extrication, natural gas fire emergencies, firefighting foam and more. Students will learn communications, incident reporting and the Incident Management System. Students will be put in command roles and coordinate on-scene operations for multiple fire and rescue companies during live fire attack sessions. This course meets all requirements of Fire Fighter Level II State of Wisconsin certification. Prerequisite(s): Complete FIRE-142 and FIRE-153.

FIRE-151 Credits: 4

Fire Prevention

This course provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, plans review, fire inspections, fire and life safety education, and fire investigation. Prerequisite(s): Complete FIRE-143, FIRE-191, FIRE-192 and FIRE-193.

FIRE-153 Credits: 1

Hazmat Awareness and Operations

Examines characteristics relating to hazardous materials, including problems of recognition and mitigation. Prepares students to Hazardous Materials Awareness and Operations Level. Prerequisite(s): Complete FIRE-143, FIRE-191, FIRE-192, and FIRE-193.

FIRE-154 Credits: 2

Hazmat Chemistry

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity and health hazards encountered by emergency services.

FIRE-156 Credits: 3

Strategies, Tactics and Incident Management

Provides an in-depth analysis of the principles of emergency response through utilization

of an incident management system. Prepares students to pursue current national ICS training requirements. Prerequisite(s): Must be admitted to the Fire Protection Technician program (10-503-2).

FIRE-157 Credits: 3

Fire Investigation

Provides students with the fundamentals and technical knowledge needed for proper fire scene investigations. Many topics will be covered, including arson detection, conducting a fire investigation, determining whether the fire is accidental or incendiary, fire cause and origin. Prerequisite(s): Complete FIRE-142, FIRE-143, FIRE-153, FIRE-191, FIRE-192 and FIRE-193.

FIRE-191 Credits: 2

Principles of Emergency Services

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics and leadership from the perspective of the company officer.

FIRE-192 Credits: 3

Principles of Emergency Services Safety and Survival

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

FIRE-193 Credits: 3

Fire Protection Systems

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

FIRE-194 Credits: 3

Fire Protection Hydraulics

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Prerequisite(s): Complete FIRE-193.

FIRE-195 Credits: 3

Fire Behavior and Combustion

This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

FLANG – Foreign Language (Department 802)

FLANG-104 Credits: 1

Spanish for Dental Staff

Upon completion, participants will be able to use Spanish to register patients, obtain medical history, engage in office etiquette, explain routine procedures, give directions to patients

during procedures, explain anesthesia, explain billing procedures, instruct patients concerning medications and instruct patients concerning post-operative problems.

FLANG-105 Credits: 1

Spanish for Healthcare

Upon completion, participants will be able to use Spanish to obtain basic information and patient history, obtain vital signs, perform physical assessments, perform routine procedures, prepare patients for surgery or other procedures, administer medications and injections, feed and bathe patients, assist and interact with patients' families, honor patients' requests, assist in emergency situations, identify Hispanic culture traits relating to medical care, reduce Hispanics' fear of hospital settings, and understand Hispanic health belief systems.

FLANG-107 Credits: 1

Survival Spanish - Work and Travel America

This introductory approach to conversation presents everyday situations encountered in work and travel situations where Spanish is spoken. This course provides students with the basic vocabulary and cultural understanding needed when communicating in Spanish.

FLANG-109 Credits: 1

Spanish for Business Professionals

Upon completion of the program, participants will be able to use Spanish to greet people, engage in etiquette and social niceties, introduce oneself and others, count to 2,000; compliment people, order food and drink, give directions to a cab driver, register in a hotel, make simple purchases, request emergency assistance, and make and receive telephone calls.

FLANG-111 Credits: 1

Spanish for Restaurants

Upon completion, participants will be able to use Spanish to greet and depart; compliment people; engage in etiquette and social niceties; use holiday greetings; direct kitchen staff, servers, and busing staff; and communicate general rules and safety issues.

FLANG-117 Credits: 3

Conversational Spanish for Service Occupations 1

This introductory approach to conversation presents everyday situations encountered on job sites. The course provides students with the basic vocabulary and cultural understanding needed for working with Spanish-speakers in targeted occupations both at home and abroad.

FLANG-118 Credits: 3

Conversational Spanish for Service Occupations 2

This continuation of FLANG-117 enables students to advance their conversational skills in realistic work-related contexts while further developing valuable cross-cultural insights needed for successful interaction with Spanish-speaking employees and clients.

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FLANG-123 **Credits: 3**
Intermediate Spanish

This course is designed to help students build language proficiency and gain cultural awareness by discussing in the target language a variety of practical topics related to the Spanish-speaking community. One hour of language lab attendance per week is required.

FLANG-200 **Credits: 2**
Spanish 1A

For beginning students who feel they need more time to complete Spanish 1. This course is the first half of a curriculum that divides Spanish 1 into two semesters. It moves gradually and includes an emphasis on how to learn a foreign language. The course stresses the development of basic communicative skills through practice in listening, speaking, reading and writing. Vocabulary and grammar are emphasized. A study of values and customs provides an increased awareness of the cultures of the Spanish-speaking world. The course is college transferable as Spanish 1 only upon completion of both semesters. Prerequisite(s): This class is a beginning level class: "If you feel this class would be too easy for you, contact worldlanguages@matc.edu, prior to registration, for a quick and free placement test." Earning a grade of B or better in a higher level course will earn students 2-14 free FLANG credits for the classes skipped, thus saving students time and money.

FLANG-201 **Credits: 2**
Spanish 1B

A continuation of Spanish 1, first semester. This slower-paced course stresses the development of basic communicative skills through practice in listening, speaking, reading, and writing. Vocabulary and grammar are emphasized. A study of values and customs provides an increased awareness of the culture of the Spanish-speaking world. Upon completion of this course and FLANG-209, students have the equivalent of Spanish 1. Prerequisite(s): Complete FLANG-200 or satisfactory MATC placement test score.

FLANG-202 **Credits: 4**
Spanish 1

This Spanish course is designed to give you a strong base in the language and an increased awareness of the cultural perspectives offered. Part of learning Spanish is developing perspectives offered through the many Spanish-speaking cultures. The text will be used as a resource to help guide us; however, we will be expanding beyond the text when necessary. Prerequisite(s): This class is a beginning level class; "If you feel this class would be too easy for you, contact worldlanguages@matc.edu, prior to registration, for a quick and free placement test." Earning a grade of B or better in a higher level course will earn students 2-14 free FLANG credits for the classes skipped, thus saving students time and money.

FLANG-205 **Credits: 4**
Spanish 2

In this continuation of FLANG-201 or FLANG-202, students develop additional communicative skills in real-life situations and gain a better understanding of the Spanish-speaking cultures of the world in relation to their own. One hour of language lab attendance per week is re-quired. Prerequisite(s): Complete FLANG-201, FLANG-202 or satisfactory MATC placement test score.

FLANG-213 **Credits: 3**
Spanish 3

This course is designed to help students build language proficiency and gain cultural awareness by discussing in the target language a variety of cultural topics and pertinent current issues. Students will refine grammar skills to improve conversational abilities. Prerequisite(s): Complete FLANG-205 or satisfactory MATC placement test score.

FLANG-214 **Credits: 3**
Spanish 4

This course is a continuation of FLANG-213. Students will continue to study cultural topics. Students will increase vocabulary, refine communicative skills and develop cultural insights. One hour of language lab attendance per week is required. Prerequisite(s): Complete FLANG-213 or satisfactory MATC placement test score.

FLANG-215 **Credits: 2**
Intermediate Spanish Grammar and Conversation 1

A composition/conversation course that presents a comprehensive review of grammatical principles, verbs and idioms while promoting the four basic language skills of listening, speaking, reading, and writing. Language lab attendance of one period per week is mandatory. Prerequisite(s): Complete FLANG-205.

FLANG-216 **Credits: 2**
Intermediate Spanish Grammar and Conversation 2

A continuation of FLANG-215. Principles of grammar are systematically reviewed with emphasis on the use of the subjunctive and audiolingual practice, as well as the development of speaking, listening and writing skills. Language lab attendance one period per week is mandatory. Prerequisite(s): Complete FLANG-215.

FLANG-218 **Credits: 3**
Spanish 5: Conversation, Grammar and Current Topics

This course focuses on developing accuracy and proficiency in spoken communication. Building on their experience in Spanish 4, students study the Spanish language in greater depth and breadth. Students continue to refine their language abilities through the study of Hispanic culture. Current topics, cultural norms and a "tour" of the Hispanic world will offer students the opportunity

to study the target culture while using the target language. Prerequisite(s): Complete FLANG-214 or satisfactory MATC placement test score.

FLANG-219 **Credits: 1**
Spanish Immersion/Special Topics

Spanish Immersion: Music and Culture in Mexico is for students at beginning proficiency (completion of at least one semester of college-level Spanish or the equivalent). Students at higher levels can also benefit. With 16 hours of immersion, your Spanish will improve through conversation, games and activities.

FLANG-221 **Credits: 4**
French 1

A conversational approach to French introduces the student to the four language skills: listening, speaking, reading and writing. Elementary rules of grammar and exercises are presented at the appropriate time. Use of the language laboratory one period each week is mandatory.

FLANG-222 **Credits: 4**
French 2

The student further develops the ability to comprehend and speak French. The student also completes the study of elementary grammar and applies the principles of French grammar and syntax to translations and short compositions. Longer and more complicated reading assignments test the student's comprehension. Use of the language lab one period each week is mandatory. Prerequisite(s): Complete FLANG-221 or satisfactory placement test score.

FLANG-228 **Credits: 3**
Spanish for Spanish Speakers

Fosters further linguistic development through the emphasis on contemporary issues facing Latinos. This stresses the improvement of writing and speaking professional Spanish as well as gaining a deeper understanding of the broader Spanish-speaking world. Upon successful completion, students possess an intermediate-mid level of written and spoken Spanish. Prerequisite(s): Complete FLANG-213 or satisfactory placement test score.

FLANG-262 **Credits: 4**
Arabic I

This Arabic course is designed to give you a strong base in the language and an increased awareness of the cultural perspectives offered. Part of learning Arabic is developing perspectives offered through the many Arabic-speaking cultures. The text will be used as a resource to help guide us; however, we will be expanding beyond the text when necessary.

FLANG-263 **Credits: 4**
Arabic 2

In this continuation of FLANG-262, students develop additional communicative skills in real-life situations and gain a better understanding of the Arabic-speaking cultures of the world in relation to their own. One hour of language lab attendance per week is required. Prerequisite(s): Complete FLANG-262 or consent of instructor.

FSTEC – GEOSCI

FSTEC – Food Science Technician (Department 623)

FSTEC-101 Credits: 4

Food Quality Management

In this course, hazard analysis and risk-based preventative controls are explored at all stages of food production. The Food Safety Modernization Act (FSMA) is examined for manufacturing, packaging, and distribution. FSMA, including preparation, planning, and system design, and materials and tools useful to successful implementation are presented. Results in Certified Food Safety Manager Certification.

FSTEC-103 Credits: 2

Manufacturing Processes and Lab Science

In this course, the principles of food processing are examined. The stages and unit operations for manufacturing different categories of food products are analyzed. The application of essential food processing principles is explored including composition analysis in the laboratory and food product labeling.

FSTEC-190 Credits: 3

Food Science

In this course, students examine types of processed foods available to consumers and the processes and scientific principles utilized to make those foods. The food science and technology industry will be studied to understand food processing, food safety, advertising quality, and marketing of processed foods. The relationship between food, additives, manufacturing and health will be examined. The course also provides a brief introduction to the different career opportunities within the food industry.

FSTEC-191 Credits: 3

Food Science Nutrition

In this course, students examine human nutrition through the lens of a food scientist. It is designed for students entering the food and/or beverage industry. The course provides practical, scientifically based nutritional information and allows students to answer questions related to human nutrition. It provides a basic introduction to digestion, metabolism, macronutrients and micronutrients, and proper nutrition throughout various life stages. The course also relates human nutrition to food production.

FUNERL – Funeral Service (Department 528)

FUNERL-104 Credits: 2

Funeral Service Field Experience I

Students currently enrolled in Semester 1 of the Funeral Service program are required to take part in the “day-to-day” funeral activities at a participating funeral home establishment for a total of eight hours per week to gain hands-on experience in all facets of funeral directing. Required tasks include embalming under the supervision of a licensed funeral director, cosmetizing, observing arrangement

conferences, assisting with conducting services and any other related tasks in funeral service. Report submissions will be required of students throughout the term of the class documenting their tasks and progress. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-105 Credits: 2

Funeral Service Field Experience II

Students currently enrolled in Semester 2 of the Funeral Service program are required to take part in the “day-to-day” funeral activities at a participating funeral home establishment for a total of eight hours per week to gain hands-on experience in all facets of funeral directing. Required tasks include embalming under the supervision of a licensed funeral director, cosmetizing, observing arrangement conferences, assisting with conducting services and any other related tasks in funeral service. Report submissions will be required of students throughout the term of the class documenting their tasks and progress. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-106 Credits: 3

Thanatochemistry

Offers an in-depth study of the basic principles of chemistry as they relate to funeral service. Emphasis is on the chemical principles and precautions involved in preservation and disinfection of the dead human body. Discussion includes aspects of general chemistry, organic chemistry and biochemistry. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-110 Credits: 2

Introduction to Funeral Service

This course begins with an orientation to funeral service and the value of a funeral. A comprehensive survey of the history of funeral service is studied, then correlated to influences on contemporary funeral principles and practices. Also studied is the topic of ethics, emphasizing ethical standards and professional conduct essential in the funeral profession, along with personal ethics of a funeral director. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-112 Credits: 3

Laws, Rules and Regulations of Funeral Service

This course examines the legal responsibilities, duties, rights, and liabilities of the funeral director and funeral establishment. Topics include federal, state, and local laws and regulations as they relate to funeral practices, human remains, final disposition, cemeteries, crematories, shipping remains, and public health. Also studied are torts pertaining to funeral service, contracts, wills, probate and preneed funeral arrangements. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-114 Credits: 2

Pathology of Funeral Service

General disease processes, specific diseases and causative factors are presented. Clinical features

are correlated with pathologic changes, and necropsies are discussed. Particular emphasis is placed on diseases that tend to create embalming problems and situations with medicolegal implications. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-116 Credits: 4

Funeral Service Practices

This course focuses on duties, responsibilities and expectations of the funeral director relating to funeralization, from the first notification of death through final disposition of the deceased. This includes procedures for various religious customs as practiced in the United States, along with secular, military and fraternal funeral practices. Creating a meaningful and personalized funeral is also emphasized. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-118 Credits: 3

Funeral Service Management

Basic principles of business and management are covered, then applied to funeral establishments and operations. All areas of small business management are studied, including considerations of starting, buying and managing a funeral home. Also included is a detailed study of funeral home merchandise, including caskets, outer burial containers, cremation products, focusing on construction, merchandising, and presentation. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-119 Credits: 1

Embalming Lab 2

This lab is a continuation of Embalming Lab 1. The lab will allow the student to expand on the process of preparing deceased individuals for viewings in a funeral setting. Students will apply knowledge from their combined lecture courses (Embalming Theory, Restorative Art, Thanatochemistry, Anatomy, Field Experience) and utilize industry standard instruments, chemicals, and techniques to embalm, dress, casket and cosmetize the deceased. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-121 Credits: 1

National Board Exam Prep I

This course will provide weekly guided review and extensive testing practice of general funeral service curriculum and National Board Exam content areas covered in the first half of the program, while identifying students' learning styles and reinforcing test-taking strategies. Topics from both funeral service arts and sciences are included in this course. Prerequisite(s): Students must be admitted to the Funeral Service program (10-528-1) or be a graduate of any ABFSE-accredited mortuary science program.

FUNERL-122 Credits: 1

National Board Exam Prep II

This course is a continuation of National Board Exam Prep I, with weekly guided review and extensive testing practice of funeral service technical course curriculum and National Board Exam content areas presented in the second

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half of the program. Simulation board exam experiences will be provided to mitigate high-stakes test anxiety and to determine overall board readiness. Topics from both funeral service arts and sciences are included in this course. Prerequisite(s): Students must be in their last semester of the Funeral Services program (10-528-1), or be a graduate of any ABFSE-accredited mortuary science program.

FUNERL-123 **Credits: 3** **Restorative Art**

Students will learn about the principles of restorative art as they relate to funeral service. The course focuses on the techniques of restoring and recreating an acceptable physical appearance of the deceased through establishment of proper form and color of a given case. Proportional relationships, the anatomical structure of the facial area of the human skull, wax modeling, color theory, lighting, and cosmetic principles are presented along with the guidelines, materials and the steps needed to address minor and major restorations. Students practice restorative art in laboratories provided by the college. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-124 **Credits: 1** **Restorative Art Lab**

This lab will allow the student to apply knowledge from the Embalming and Restorative Art lecture course. Students will employ color theory and modeling techniques through the use of cosmetics, wax, clay and other types of media to restore the deceased to an acceptable physical appearance. Lab work will take place in the embalming lab space on deceased cases as well as in the restorative art classroom on model heads. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-134 **Credits: 3** **Embalming Theory**

Students will learn the basics of the embalming process and study of the phenomenon of death in the human body, government regulations applicable to the embalming process, embalming analysis and reporting, embalming techniques and instrumentation, procedures and treatments for handling the deceased, including difficulties encountered due to disease and pathological changes, autopsied and procurement cases, organ and tissue donation cases, and various conditions encountered in the dead human body. Students will practice embalming in laboratories provided by or approved by the college. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-135 **Credits: 1** **Embalming Lab 1**

This lab will allow the student to employ hands-on learning, preparing deceased individuals for viewings in a funeral setting. Students will apply knowledge from the Embalming Theory course to properly prepare the deceased to an acceptable physical appearance through the use of industry standard instruments, chemicals and techniques. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-136 **Credits: 2**

Funeral Service Science

Discusses the study of the morphology, taxonomy, physiology, transmission and control of microbes, especially those which cause disease in humans. The process of infectious disease and defense mechanisms of disease will be covered. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-137 **Credits: 1**

Funeral Service Management Lab

The focus of the FUNERL-137 lab is to practice, through role playing, all components of the funeral arrangement conference with effective and professional interpersonal communication. This prepares the student for a capstone project of conducting a simulated arrangement conference, demonstrating the ability to plan funeral services, provide final disposition options, create an obituary, convey legal requirements and disclosures, facilitate merchandise selection, discuss pricing, and complete the funeral contract. Various scenarios pertaining to the notification of death to the funeral home are also simulated. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-153 **Credits: 3** **Psychology of Funeral Service**

Basic principles and theories of psychology and counseling are presented as they relate to funeral service. All aspects of grief, mourning, and bereavement are examined, including psychological and sociological influences on grief responses. A study of grief as it relates to children and the family structure is included, along with grief characteristics based on cause and manner of death. Effective verbal and nonverbal communication skills are identified and applied to the role of the funeral director as a counselor. Prerequisite(s): Must be admitted to the Funeral Service program (10-528-1).

FUNERL-155 **Credits: 1** **National Board Prep Intensive**

This six-week online course provides a condensed yet comprehensive preparation for the National Board Exam for Funeral Directors. Content review of all curriculum topics in the Funeral Service program is provided, along with substantial and intensive practice testing. Emphasis is placed on reinforcing memory recall through sequenced testing repetition, testing feedback and multiple types of learning resources. Prerequisite(s): Must have instructor consent.

GENST – General Studies **(Department 890)**

GENST-204 **Credits: 3** **College Success Seminar**

This course provides learners with strategies to develop tools for success in college and life. Students will learn academic and research skills. Students will develop strategies, behaviors, and habits that lead to success in personal

responsibility, goal setting, self-motivation, self-management, interdependence, and multicultural awareness. Learners will apply self-management techniques, explore financial management strategies, practice study skills, and apply methods to improve personal effectiveness.

GEOSCI – Geological Science **(Department 806)**

GEOSCI-112 **Credits: 3**

Principles of Sustainability

Prepares the student to develop sustainable literacy; analyze the interconnections among the physical and biological sciences and environmental systems; summarize the effects of sustainability on health and well-being; analyze connections among social, economic, and environmental systems; employ energy conservation strategies to reduce the use of fossil fuels; investigate alternative energy options; evaluate options to current waste disposal and recycling in the United States; and analyze approaches used by your community to promote and implement sustainability.

GEOSCI-232 **Credits: 3** **Earth Science**

This course introduces students to the fields of geology, meteorology, astronomy and oceanography. It emphasizes humans' continually evolving techniques of exploring both the past and the present world and universe.

GEOSCI-233 **Credits: 3** **Environmental Science**

This course introduces basic scientific principles necessary to an understanding of the relationships between mankind and the environment, with special focus on the effects of mankind's activities on the environment.

GEOSCI-234 **Credits: 1** **Earth Sciences Laboratory**

This laboratory course introduces students to the earth sciences through firsthand activities and exploration. Subject matter differs in different sections. The course may emphasize identifying minerals, rocks, and fossils; interpreting and compiling maps (including GIS); observing and forecasting weather conditions; collecting and analyzing environmental data; and/or other earth science topics. Please consult the instructor or department of Physical Science instructional chairperson for specific content. Prerequisite(s): Completion of or currently enrolled in GEOSCI-232.

GEOSCI-243 **Credits: 3** **Weather Fundamentals**

The course assists students whose work and interests require a general knowledge of atmospheric science. Applications appear in agribusiness, architectural design, insurance underwriting, environmental control, health and safety occupations, water resource industries, fabrication of materials (textiles, paint, plastics), physical geography, and oceanography.

GEOSCI – HIST

GEOSCI-244 Credits: 1

Weather Fundamentals Laboratory

This laboratory course complements GEOSCI-243 (Weather Fundamentals) by providing additional investigations involving real-time data and satellite images, plus a comprehensive range of critical thinking exercises.

GEOSCI-245 Credits: 4

General Geology

This introductory geology course emphasizes the earth's dynamic processes as well as its composition, structure and surface features. The laboratory introduces the identification of rocks and minerals and teaches mapping skills. Field trips are included.

GEOSCI-246 Credits: 3

Climate Change Fundamentals

This course examines critically our understanding of climate and its causes, the evidence of past and present climate change and models of future climate change as well as the probable impacts of climate change on society and implications for future energy resources and the economy.

GLOBAL – Global Studies (Department 140)

GLOBAL-113 Credits: 1

International Field Studies - 1

Emphasizes the importance of integrating international awareness in the student's program. Students explore the facets of the international environment, examining ethical, cultural, social and organizational similarities and differences.

GLOBAL-115 Credits: 3

International Field Studies

Emphasizes the importance of integrating international awareness in the student's program. Students explore the facets of the international environment examining ethical, cultural, social and organizational similarities and differences.

GRDS – Graphic Design (Department 201)

GRDS-103 Credits: 3

Design Elements and Principles

This course develops the student's ability to express meaning with graphic form by introducing basic knowledge of shape and space, unity and components, contrast, hierarchy, psychology of color, sign and symbol. Students will also learn how to utilize the available media and work within design constraints.

GRDS-104 Credits: 3

Researching and Concepting

Successful graphic design needs careful planning and research before ideas are explored. In this course, students will experience the professional design process from clarification of the client's objective, to analysis and research of visual reference and contemporary trends, to implementation of the final comprehensive design. Prerequisite(s): Complete GRDS-103.

GRDS-107 Credits: 3

Digital Imaging: Adobe Photoshop

This course is an introduction to digital imaging in Adobe Photoshop as it applies to design and illustration. Students learn digital color correction, retouching, image manipulation, special effects, image composing and creative design techniques. Differences between raster and vector graphics are discussed. Students also learn how to manage files, optimize images for print output and multimedia applications.

GRDS-110 Credits: 3

Layout and Publishing InDesign

This course builds the essential skills in popular desktop publishing programs. Topics covered include integrating graphics and photos into publication, formatting type, creating tables, importing files, managing story threads, managing color, and assembling pages. Design principles and processes specific to publications will be emphasized. Creative assignments range from newsletters, magazines, and books to electronic publications. Prerequisite(s): Complete GRDS-115.

GRDS-111 Credits: 3

Advertising Design

This course is an introduction to advertising layout, from rough concepts to comprehensive presentations. Students will explore effective design styles, use of typography and various rendering techniques. Prerequisite(s): Complete GRDS-107.

GRDS-112 Credits: 3

Graphic Design Workshop

In addition to a course facilitator, five visiting professionals who exemplify the broad spectrum of practice within the graphic arts industry will present mini seminars scheduled for three weeks each. These professionals will represent members of the regional graphic arts community, including graphic/web designers, art/creative directors, photographers, and illustrators. Prerequisite(s): Complete GRDS-121.

GRDS-113 Credits: 3

Digital Media Preparation

An advanced layout and production course addressing the present advertising market. Students prepare concepts through campaigns for digital distribution. Topics covered include digital advertising, email marketing, basic web design, layout and coding as well as interactive and social media design and considerations. Prerequisite(s): Complete GRDS-129.

GRDS-115 Credits: 3

Typographic Fundamentals

This course introduces typography history, vocabulary and basic skills. Students will learn the type anatomy and the absolute and relative measurement system. Creative projects include both editorial and illustrative typography with proper typeface selection, composition, legibility, aesthetics and hierarchy.

GRDS-116 Credits: 3

Integrated Design Thinking

Through examining experiences of using personal computers, hand-held devices, and physical tools, environments and processes, this course introduces the fundamental concepts of interaction and interface design, including information structure, perceived affordance, icon, label, page layout, metaphor, navigation and orientation. Students will learn user-centered design methodology. The course also briefly surveys social, cultural, behavioral, cognitive, and emotional human factors pertaining to complex design issues. Prerequisite(s): Complete GRDS-110.

GRDS-117 Credits: 3

Packaging Design

This course focuses on seeing and designing in three dimensions for product packaging, point of purchase display (POP), and environmental graphics. Graphic continuity, content, client/customer research and aesthetic issues are dealt with at length. Students will also learn simple model-making techniques and choosing appropriate materials. Prerequisite(s): Complete GRDS-122.

GRDS-121 Credits: 3

Exhibition Design

This course focuses on designing in three dimensions for larger scale exhibit and display applications. Client research, exhibit functionality, technical file preparation and aesthetic issues are dealt with at length. Students will refine model-making techniques and learn methods of reproduction. Prerequisite(s): Complete GRDS-117.

GRDS-122 Credits: 3

Vector Graphics: Adobe Illustrator

This course addresses the concepts and techniques of creating illustrations and images for use in print and digital applications utilizing current industry-standard drawing software: Adobe Illustrator. Assignments include the creation of logos, symbols, technical illustrations, information graphics and art for other applications.

GRDS-126 Credits: 3

History of Design

This course surveys the history of media forms and communication technologies, charting the historical trajectory from the alphabet to the internet. It explores mediation in and across time and the emergence and development of different media forms in relation to particular social, economic, perceptual, and technological conditions and historical moments. Prerequisite(s): Complete GRDS-110.

GRDS-128 Credits: 1

Portfolio Pathway

Exit course for pathway students and portfolio checkpoint for program students. This course will help students evaluate their current portfolio, existing work, and modifications and improvements based on critique. Students

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will develop an online portfolio of work using Behance, WordPress or any blog platform. Prerequisite(s): Complete GRDS-103.

GRDS-129 Credits: 3

Motion Graphic Design

An advanced layout and production course addressing motion graphic design. Students prepare concepts to finished pieces for digital distribution. Topics covered include design technique for time based media through a variety of mediums. Prerequisite(s): Complete GRDS-110.

GRDS-142 Credits: 3

Brand and Media Strategies

This course examines the elements of surprise which carry tremendous weight, both as a tool for retention and word-of-mouth transference. This course studies the pros and cons of guerilla and viral methods, through case study and real-life project application. Prerequisite(s): Complete GRDS-110.

GRDS-153 Credits: 3

Portfolio Assessment

In this course, students will learn portfolio preparation and presentation, networking and establishing contacts, job interviewing skills, resume-writing, completing job applications, and follow-up. Guest speakers will add professional insight. Prerequisite(s): Complete GRDS-116.

HEALTH (Department 501)

HEALTH-101 Credits: 3

Medical Terminology

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students will practice formation, analysis and reconstruction of terms. This course emphasizes spelling, definition, and pronunciation. It provides an introduction to operative, diagnostics, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

HEALTH-104 Credits: 2

Contemporary Healthcare Practices

An introduction to contemporary healthcare practices for students interested in a career serving diverse healthcare communities. Learners explore the essential skills required for equitable and inclusive person-centered interactions. Learners examine various health communities, mindful practices, professionalism, problem-solving, and patient confidentiality.

HEALTH-107 Credits: 2

Digital Literacy for Healthcare

The focus of this course is the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheets, and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (EHR). Healthcare EHR security issues, social media use, and digital healthcare resources are examined.

HEALTH-110 Credits: 1

Basic Nutrition for Health Professionals

The Basic Nutrition for Health Professionals course is designed to provide students with a baseline understanding of how diets are recommended for patients.

HEALTH-112 Credits: 3

Introduction to Public Health

A survey and analysis of current public health problems incorporating an epidemiologic framework. A basic introduction to community health history and organization is followed by specific health issues analyzed through the agent, host, and environmental interrelationships. Primary, secondary and tertiary prevention, and health promotion strategies are detailed.

HEALTH-160 Credits: 2

Study Strategies for Health Occupations

This course focuses on creative thinking, brain-based learning principles, information processing, and memory strategies, as well as life management skills. Learning strategies are taught to assist learners in integrating and processing technical information in a meaningful way.

HIST – History (Department 803)

HIST-203 Credits: 3

Western Civilization From Ancient Times to 1776

This course surveys the evolution of Western civilization from ancient times to 1776. Special emphasis is placed on the development and interactions of the political, social, religious, and economic institutions that form the foundations of Western civilization today.

HIST-204 Credits: 3

Western Civilization From 1776

This course surveys the evolution of Western civilization from 1776 to the present time. Special emphasis is placed on the development and interactions of the political, social, religious, and economic institutions that form the foundations of Western civilization today.

HIST-206 Credits: 3

America Since 1945

This course analyzes domestic and foreign policy of the United States since World War II. Beginning with the Truman administration, it moves through the current time. The emphasis is on changes in America's role in international affairs, growth in presidential power, and changes within American society. Special attention is devoted to the Middle East, Asia, Latin America, the Civil Rights Movement, the cultural revolution of the '60s, and New Federalism.

HIST-210 Credits: 3

Women in American History

This course provides an analysis of the experiences of women in the development of

America. Emphasis is placed on the impact of women in the political, economic, and social events that shaped the nation, and the growing awareness in women of their role in society.

HIST-211 Credits: 3

America Through 1877

A survey of the history of the United States from 1500 to 1877. Emphasis is placed on colonial development, the movement for independence, and the establishment of government under the Constitution. Special attention is devoted to the evolution of political democracy, economic developments, the emergence of the sectional controversy leading to the Civil War, and the period of Reconstruction that followed.

HIST-212 Credits: 3

America Since 1877

The major developments in United States history from the 1870s to the present are traced. Attention is focused on industrialization, urbanization, development of the West, reform movements, and the emergence of the United States as a world power.

HIST-213 Credits: 3

America: 1921-1945

This course focuses on America in prosperity, depression and war. It assesses the successes and failures of people, famous and not so famous, who confronted economic and social disasters at home and tyranny abroad.

HIST-214 Credits: 3

African American History

A comprehensive introduction to the historical and sociological background of African American people. An African-centered approach will be used to focus on the political, economic, and cultural history of African Americans from 3900 B.C. to 1865. An analysis is made of the cultural and historical policies and practices that have shaped African American people's relationship to other people of the world.

HIST-215 Credits: 3

African American History and Culture

A comprehensive study of African American history since the Civil War. An African-centered approach will be utilized to analyze the political, economic, and cultural history of African Americans from 1865 to the present.

HIST-216 Credits: 3

History of American Minorities

This course highlights the role of minorities in the history of America. The cultural, social, and political history of African Americans, Hispanic Americans, Asian Americans, and other European immigrants are studied. A cross-cultural approach shows the distinctive cultural patterns of the various groups and their contributions to the dominant culture.

HIST – HORT

HIST-217 **Credits: 3**

Contemporary Civil Rights

This course familiarizes the student with the period of history commonly referred to as the modern civil rights era, 1953 to 1969. It introduces the student to the events, individuals, social, political, religious linkages, and activities that give this period its historical relevance and prominence.

HIST-218 **Credits: 3**

Native American History

The purpose of this course is to provide an instruction to Native American history and culture. Indian/non-Indian relationships over time will be the central focus of the course.

HIST-219 **Credits: 3**

Wisconsin Indians Past/Present/Future

This course presenting the history of Wisconsin Indians is designed to provide all Wisconsin residents, Indian and non-Indian, with an in-depth understanding of indigenous people from Wisconsin. The course provides the student with data, prehistorical and historical, in order to cover the broad range of time involved in the study of the Wisconsin Indian Nations.

HIST-226 **Credits: 3**

African History 1 Before 1800 C.E.

This course discusses African history from human origins to the start of European expansion into tropical Africa in the 19th century. It examines precolonial African civilizations such as the kingdoms and empires developed in the northeast, west, central, and southern Africa. It examines the early contact of Africans with the outside world, for example, through the spread of Islam and Christianity and the migration of the major African ethnic groups. It explores the internal African slave trade; the political, economic, and socio-cultural institutions; and the regional diversity of Africa at the eve of colonial rule.

HIST-227 **Credits: 3**

African History 2 Since 1800 C. E.

This course explores the major political, economic, and socio-cultural transformations taking place in Africa from the start of European territorial expansion in the early 19th century to the present. It examines the implementation and challenges of colonial rule, the decolonization process, the rise of African nationalism, and the diverse conditions facing independent African countries. It explores the challenges of African governments at nation building and the different strategies adopted in that effort.

HIST-228 **Credits: 3**

World History to 1500

This course examines global history from antiquity to 1500 C.E. It explores from the first river valley civilizations through the Bronze Age, to the development of writing, the depiction of the human form and the creation of new communities in the Middle East. It examines the spread of world religions and the building of huge empires in Europe, Asia, the Americas and Africa. The course stresses that history, with its different definitions and ways of studying the past, is

not reserved for a particular group. It embodies written and material culture and activities carried out by people all over the world.

HIST-229 **Credits: 3**

World History Since 1500

World History Since 1500 is a survey of the world's last five centuries stressing its social diversity, interconnectedness, cross-cultural contact, and geography in a way that enhances understanding about the way in which we live today.

HIST-231 **Credits: 3**

Latin American History

This course is subdivided into the following topics: precolonial civilizations, the colonial period, independence, the republican period, and contemporary Latin America. Special emphasis is given to U.S.-Latin American relations and to the problems of development.

HIST-232 **Credits: 3**

History of Wisconsin

This course covers the history of the state of Wisconsin and of Milwaukee as a Wisconsin hub city. It traces the formative and developmental stages and patterns in Wisconsin, and Milwaukee's unique social, political, and economic history, with special focus on their rich and diverse multiethnic and multicultural heritage in the backdrop of Wisconsin's seasonal array of natural beauty, wonderlands, and festivals.

HIST-236 **Credits: 3**

History of the Vietnam War Years

This course examines the American experience in the Vietnam War. It will deal with the roots of the conflict in French colonialism in Southeast Asia and the containment principles of U.S. foreign policy, and traces the course of the war through the Kennedy, Johnson, and Nixon administrations. It also examines the domestic political response to the war and the literature produced by Vietnam veterans.

HIT – Health Information Technology (Department 530)

HIT-159 **Credits: 3**

Healthcare Revenue Management

Prepares learners to compare and contrast health care payers, illustrate the reimbursement cycle and comply with regulations related to fraud and abuse. Learners assign payment classifications with entry level proficiency using computerized encoding and grouping software. Prerequisite(s): Complete HIT-162, HIT-197, HIT-199 and HIT-182. Must be admitted to the Medical Coding program (30-530-2). Completion of or currently enrolled in HIT-165 and HIT-184.

HIT-161 **Credits: 3**

Health Quality Management

Explores the programs and processes used to manage and improve healthcare quality.

Addresses regulatory requirements as related to performance measurement, assessment and improvement, required monitoring activities, risk management and patient safety, utilization management, and medical staff credentialing. Emphasizes the use of critical thinking and data analysis skills in the management and reporting of data. Prerequisite(s): Complete HIT-163.

HIT-162 **Credits: 3**

Foundations of HIM

Introduces learners to the healthcare delivery system and the external forces that influence healthcare delivery. Sets an understanding for the expectations and standards related to professional ethics, confidentiality and security of health information. Differentiates the use and structure of healthcare data elements, data standards, and the relationships between them. Prepares learners to collect and maintain health data to ensure a complete and accurate health record. Prerequisite(s): Complete HEALTH-101. Must be admitted to the Health Information Technology (10-530-1) or Medical Coding (31-530-2) programs. Completion of or currently enrolled in HEALTH-107.

HIT-163 **Credits: 3**

Healthcare Stats and Analytics

Explores the management of medical data for statistical purposes focusing on descriptive and inferential statistics, including definition, collection, calculation and compilation of numerical data. Examines data analytics, retrieval, presentation and research methodologies. Prerequisite(s): Complete HIT-162 and HEALTH-107.

HIT-164 **Credits: 3**

Introduction to Health Informatics

Emphasizes the role of information technology in healthcare through an investigation of the electronic health record (EHR), business and health information software applications. Learners will develop skills to assist in enterprise information management and database architecture design and implementation. Prerequisite(s): Complete HIT-162 and HEALTH-107.

HIT-165 **Credits: 3**

Intermediate Coding

Prepares students to assign ICD and CPT/HCPSC codes supported by medical documentation and official coding guidance to support appropriate reimbursement. Students will participate in CDI activities, including preparation of appropriate physician queries in accordance with compliance guidelines. Prerequisite(s): Complete HIT-197 and HIT-199. Completion of or currently enrolled in HIT-184 and HIT-185.

HIT-166 **Credits: 1**

HIT Capstone

Explore technical skills and professional attributes desired for the HIM profession and conduct activities to assess one's own readiness to enter the health information industry. Prerequisite(s): Completion of or currently enrolled in HIT-196.

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HIT-167 Credits: 3

Management of HIM Resources

Examines the principles of management to include planning, organizing, human resource management, directing and controlling as related to the health information department. Prerequisite(s): Complete HIT-162 and HIT-165.

HIT-178 Credits: 2

Healthcare Law and Ethics

Examines regulations for the content, use, confidentiality, disclosure and retention of health information. An overview of the legal system and ethical issues are addressed. Prerequisite(s): Complete HIT-162.

HIT-182 Credits: 3

Human Diseases for the Health Professions

This course focuses on the common diseases of each body system as encountered in all types of healthcare settings by health information professionals. Emphasis is placed on understanding the etiology (cause), signs and symptoms, diagnostic tests, and treatment (including pharmacologic) of each disease. Prerequisite(s): Complete BIOSCI-177, BIOSCI-189, or both BIOSCI-201 and BIOSCI-202 and HEALTH-101 with minimum grade of C.

HIT-184 Credits: 3

CPT Coding

This course prepares students to assign CPT codes, supported by medical documentation, with entry-level proficiency. Students apply CPT instructional notations, conventions, rules and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation. Prerequisite(s): Must be admitted to the Medical Coding program (30-530-2) or the Health Information Technology program (10-530-1). Complete HEALTH-101, HEALTH 107 and HIT-182 with minimum grade of C and complete either BIOSCI-177, BIOSCI-189 or BIOSCI-201 and BIOSCI-202 with minimum grade of C.

HIT-196 Credits: 3

Professional Practice

Applies previously acquired skills and knowledge by means of clinical experiences in the technical procedures of health record systems and discussion of clinical situations. Students may participate in a supervised clinical experience in healthcare facilities. Prerequisite(s): Complete HIT-165. Must be admitted to Health Information Technology (10-530-1) or the Medical Coding (31-530-2) programs. Completion of or currently enrolled in HIT-161, HIT-164 and HIT-166.

HIT-197 Credits: 3

ICD Diagnosis Coding

This course prepares students to assign ICD diagnosis codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation. Prerequisite(s): Complete BIOSCI-177 and BIOSCI-189, or BIOSCI-201 and BIOSCI-202

or HEALTH-101 and HEALTH-107 with minimum grade of C. Must be admitted to the Medical Coding (31-530-2) or Health Information Technology (10-530-1) programs. Completion of or currently enrolled in HIT-182.

HIT-199 Credits: 2

ICD Procedure Coding

This course prepares students to assign ICD procedure codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation. Prerequisite(s): Complete BIOSCI-177, BIOSCI-189 or BIOSCI-201 and BIOSCI-202 and HEALTH-101 and HEALTH-104 with minimum grade of C. Must be admitted to the Medical Coding (31-530-2) or the Health Information Technology (10-530-1) programs. Completion of or currently enrolled in HIT-182.

HORT – Horticulture (Department 001)

HORT-111 Credits: 3

Introduction to Horticulture

This course provides an overview of the horticulture profession. Its role and importance throughout history, current trends and career opportunities will be covered. Particular attention is given to horticulture crops, plant classification, their use, and the interrelationships between the environment, plant growth and plant development.

HORT-112 Credits: 3

Horticulture Soils

This course explores the properties of soils and applies them to horticultural uses as a growing medium and as an engineering base for landscaping.

HORT-114 Credits: 3

Survey of Woody Ornamental Plants

Plant classification and the techniques of plant identification are explained. The student utilizes these techniques in identifying commonly used deciduous and evergreen trees and shrubs.

HORT-115 Credits: 3

Plant Pests and Controls

The invertebrates, diseases, vertebrates and abiotic disorders of landscape plants are studied, along with control methods specific to each. An integrated pest management approach in the control of pests using biological, cultural, mechanical and chemical applications will be included. Emphasis is on correct diagnosis and use of the integrated pest management (IPM) system of control.

HORT-116 Credits: 3

Landscape Equipment

This course covers maintenance, adjustment, and productive use of specialized rolling stock and tools used in landscaping. Students practice safe operation of an array of landscape equipment.

HORT-119 Credits: 3

Landscape Construction 1

This course provides an overview of the installation of hardscape features of the landscape. Included are basic construction techniques for retaining walls, outdoor steps, paving (patios, walks, and drives), decks and fences. Limitations in executing hardscape designs are discussed.

HORT-120 Credits: 3

Sustainable Construction

This course focuses on developing proficiency in landscape installation. Students practice skill development with specialized landscape construction equipment, which enhances labor efficiency in completing projects.

HORT-121 Credits: 3

Irrigation, Lighting and Ponds

These landscape accessories augment both the greenscape and the rest of the hardscape. They are increasingly popular add-ons to commercial, as well as residential projects. As part of a national trend, irrigation, low-voltage, lighting and water features contribute to more sophisticated outdoor living areas.

HORT-122

Credits: 3

Landscape Design 1

This course provides the student with the initial experience needed to understand the fundamental processes used in creation of a landscape design. This includes contracting with a client, assessing fundamental client needs, site measurement, client analysis, environmental analysis, functional analysis, the use of geometric form and planting design principles.

HORT-123 Credits: 3

Landscape Horticulture – Design II

Learn to draw landscape graphics and understand what makes them readable. Review and practice design processes, including planting design and its basic elements. Practice planting design developed first in a class client contact project. Prerequisite(s): Complete HORT-122.

HORT-125 Credits: 3

Landscape Maintenance Application

Students will learn concepts in landscape management and health such as establishment, pruning, weed control, mulching, fertilization, winter protection and basic turf management.

HORT-126 Credits: 3

Landscape Estimating and Bidding

The numerical aspects of landscape installations and maintenance are studied, including estimation of labor and material costs. Linear, area and volume calculations of materials needed for landscape projects from landscape plans are thoroughly covered as well as garden center figuring, landscape design calculations, nursery and greenhouse setup, and fertilizer materials and calibration.

HORT – HRMGT

HORT-127 Credits: 3

Arboriculture 1: Tree Care Fundamentals

Students will learn tree establishment, pruning, bracing and cabling, problem treatments, fertilization, rigging and removal, avoidance and treatment of construction damage, tree risk and decay detection, rope and harness tree climbing, and knot tying. Brush chippers, stump cutters, aerial lifts, root excavators, and chainsaws are demonstrated and operated. The current Safety Requirement Standards (ANSI Z133) and Standard Practices (ANSI A300) are stressed.

HORT-128 Credits: 3

Arboriculture II Climbing and Pruning

In an outdoor setting, this course provides practical application to principles presented in the previous arboriculture course. The students observe and perform skills in tree climbing and pruning, as well as tree repair, practical rigging, and tree removal as opportunities present themselves. Knowledge of safe tree care operations and tree pruning standards are stressed, and students gain skills in knot tying, aerial rescue, and clear communication.

HORT-129 Credits: 3

Arboriculture III – Rigging and Removal

In an outdoor setting, students rig and remove trees using various techniques and equipment. Students become competent in determining methods of tree removal, and skilled in operation of chainsaws and selection of removal equipment. Safe work practices, clear communication, and knots needed for removals are stressed.

HORT-130 Credits: 1

Pesticide Applicator Training

The focus of this course is training to successfully pass the Wisconsin Department of Agriculture and Consumer Protection's pesticide applicator exam, Category 3.0 - Turf and Landscape (which will be proctored in this class). Additionally, students will be familiarized with principles of pest control, equipment calibration, as well as pesticide handling, mixing, safety, application, and laws.

HORT-131 Credits: 3

Landscape Business and Marketing

This course will create awareness of the elements involved in starting and running a business within the horticulture industry. Subjects studied are horticulture industry resources and trends, types of legal ownership, client relationships and contracts, staff relationships and supervision, financial resources and financial statements for business plans, legalities of landscaping, landscape industry paper trails, marketing and sales. The final project of this course is a mock business plan.

HORT-133 Credits: 3

Turf Management and Related Equipment

The description and identification of turf grasses used in the landscape industry are studied. Emphasis is on cultural requirements, pet problems, and equipment used in establishing and maintaining turf.

HORT-134 Credits: 3

Greenhouse Production Fall Crops

This course provides an overview of greenhouse production of crops grown in fall and winter. Planning and growing of the crops is the main focus.

HORT-135 Credits: 3

Herbaceous Plants

This course introduces herbaceous landscape plant materials for Zone 5 or colder climates. Emphasis is on identification, cultural and maintenance requirements, and use in landscape design.

HORT-136 Credits: 3

Landscape Design III

This course briefly reviews outdoor rooms and planting design. Actual situations with clients are used. Projects include study and design of vehicular circulation, steps and walls, a community project, and a specialty project. There will be class collaboration and class presentations to clients. Students are encouraged to review each other's work. Color projects are also encouraged. Prerequisite(s): Complete HORT-122 and HORT-123.

HORT-139 Credits: 3

CAD for Landscape Design

This course will introduce students to computer design software used to create landscape designs. The students will learn basic commands for setting properties, drawing graphic elements, dimensioning, labeling, and plotting. The class will focus on the use of AutoCAD, but other industry design programs will be discussed and practiced.

HORT-152 Credits: 3

Greenhouse Production - Spring

Students will grow spring greenhouse crops from propagation, transplanting, fertilization, to market. Cultural care for each crop will be done under greenhouse growing conditions. Schedules of crops and planning of greenhouse space will be covered.

HORT-153 Credits: 3

Advanced Woody Plants

The study of woody landscape plants is broadened to include evergreen and deciduous tree and shrub cultivars (landscape zone 5 and colder) as well as woody vines. Emphasis is on cultural requirements, uses in various landscape settings, and identification. Prerequisite(s): Complete HORT-114.

HORT-163 Credits: 3

Native Plants – Fall

In this course, students identify the basic plant communities that are native to Wisconsin, especially to southeastern Wisconsin. Students become familiar with a selection of native plants that make each of these communities unique. Students also study how to cultivate these plants for use in ecologically based landscape design.

HORT-193 Credits: 3

Native Plants – Spring

This course teaches landscaping with native plants through on-site observation of native plant communities. Students also learn basic preservation and restoration techniques for native plant communities. Landscape design principles will be observed and noted.

HOTEL – Hospitality Management (Department 109)

HOTEL-105 Credits: 3

Hospitality Marketing, Sales and Revenue Strategy

This course takes a practical perspective in introducing students to marketing, sales, and revenue management of hotels and restaurants. The course identifies trends, market segmentations in the industry, and the concept of revenue management.

HOTEL-110 Credits: 3

Front Office Procedures and Management

This course emphasizes front office techniques and management principles for the organization and operation of the lodging facility. The human and public relations responsibilities of the front office, as well as routine procedures, are an integral part of the course.

HOTEL-112 Credits: 3

Front Office Computerized Procedures

Provides an overview of the informational needs of lodging properties and food service establishments; addresses essential aspects of computer systems, such as hardware, software, and generic applications. The course focuses on computer-based property management systems for both front office and back office functions and examines features of computerized restaurant management systems. Describes hotel sales computer applications, revenue management strategies, and accounting applications. The course also focuses on managing information systems and examines the impact of the internet and private intranets on the hospitality industry. Students also learn basic tasks on a mock reservation system such as making a reservation, group reservation, travel agent reservation, and looking up availability. Students will learn the basic operation of Cvent and also become Cvent certified.

HOTEL-117 Credits: 3

Hospitality Law and Liability

This course provides a study of the nature and function of our legal system as applied to hospitality, restaurant and travel operations. Operator/guest relationships, contracts, torts, civil rights, and insurable risks are emphasized.

HOTEL-120 Credits: 3

Building Operations and Security

Technical information necessary to establish effective maintenance and engineering functions is explored. An effective energy management

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program is discussed. Common mechanical problems and the procedures to correct them are emphasized. Security management to protect guests is reviewed.

HOTEL-122 Credits: 3 **Basic Hospitality Accounting**

The basic structure of hospitality accounting is studied. The student will recognize the differences in hotel/hospitality accounting. Emphasis is placed on analysis and interpretation, as well as recording, classifying and summarizing phases.

HOTEL-124 Credits: 3 **Managerial Accounting for the Hospitality Industry**

Accounting data is an aid to managerial decision-making. Emphasis is placed on the use of internal cost and segment data. Managerial accounting is an integral tool in planning and controlling operations. Prerequisite(s): Complete HOTEL-122.

HOTEL-127 Credits: 3 **Fundamentals of Meetings and Special Event**

This course provides the Hospitality Management student with the overall concept of conventions, weddings and catering sales and their contracts, including coordination of functions, to achieve the ultimate result — a satisfied customer.

HOTEL-130 Credits: 1 **Internship-Hotel/Meeting Management**

The internship affords students the opportunity to experience employment while simultaneously having the advantage of being supervised by a program instructor/coordinator. Students complete a 16-week practical experience in an off-campus location. Prerequisite(s): Complete INTRN-796 with minimum grade of C.

HOTEL-133 Credits: 3 **Supervision in the Hospitality Industry**

The course is designed to provide students with the principles of supervision as they apply specifically to the hospitality industry: to identify the role of the supervisor in hospitality operations; to describe the communication skills essential for effective leadership; and to understand the effect of labor storage, Equal Employment Opportunity laws, sexual harassment cultural diversity, substance abuse, and working with employee unions.

HOTEL-135 Credits: 3 **Hospitality Professional Service and Development**

In this course, students will be able to identify the difference between excellent and poor customer service along with how to anticipate a guest's needs in order to provide exceptional service and build rapport. Students will be able to define and demonstrate what professionalism means in the hospitality industry. After the completion of this course, students will have the opportunity to become Guest Service Gold Certified from the American Hotel & Lodging Association.

HOTEL-140 Credits: 3 **Food and Beverage Operations**

The complete food and beverage operation in the hotel/motel complex is explored. A basic understanding of the principles of food production and service management, sanitation, menu planning, labor and cost controls and purchasing is emphasized.

HOTEL-150 Credits: 2 **Housekeeping Operations**

This course investigates the functions of the housekeeping department and the role of its managers in operating the department, and it introduces students to basic production skills. The housekeeping department is the training ground for room-division managers.

HRMGT – Human Resources (Department 116)

HRMGT-124 Credits: 3 **Human Capital Analysis**

This course prepares the student to consolidate, analyze, and display data at varying levels of detail in order to make human capital decisions in the workplace. This course will also prepare HRMGT students for the “Associate Professional in Human Resources” certification, which provides knowledge pertaining to entry-level certification in the HR industry. Prerequisite(s): Complete HRMGT-193, BADM-106 and MATH-134.

HRMGT-133 Credits: 3 **Legal Issues and Employment Law**

Students apply the skills and tools necessary for human resource professionals to effectively perform related functions in today's work environment. Each student will demonstrate the application of legal practices in both union and nonunion environments, analysis of the impact of U.S. employment laws, the impact of the global economy, the appeal process, reacting to legal charges, documenting the hiring and firing process, dealing with harassment issues, privacy issues, and summarizing legal issues facing contemporary human resource professionals.

HRMGT-136 Credits: 3 **Safety in the Workplace**

In this course, students apply the skills and tools necessary to provide a safe and secure work environment. Each student demonstrates the application of safety awareness, federal/state/local compliance, incident investigation and documentation, human relations techniques, safety orientation, inspections, risk analysis, issues of workplace violence, substance abuse, health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

HRMGT-169 Credits: 3 **Diversity and Change Management**

In this course, students apply the skills and tools necessary to implement and maintain a diverse work environment that values change. Each student demonstrates the application of assessing the current extent of diversity in the workplace;

analyzes the effect of perceptions, attitudes, biases and organization culture on diversity; deals with barriers; changes management strategy; and processes reactions, measures progress, and celebrates success.

HRMGT-170 Credits: 3 **Employee and Labor Relations**

This course explores employee relation efforts in both unionized and nonunionized organizations.

HRMGT-193 Credits: 3 **Human Resource Management**

In this course, students apply the skills and tools necessary to effectively value and apply employees' abilities and needs to organization goals. Each student demonstrates the application of the various functions performed in contemporary human resources management, including impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies and procedures, training, performance management, employee counseling and development, and effective use of compensation and benefit strategies.

HRMGT-194 Credits: 3 **Fundamentals of Compensation**

In this course, students apply the skills and tools necessary to develop and manage an effective compensation and benefit program for organizational employees. Each student demonstrates through application how to use compensation strategies to reinforce organizational goals and to recruit and retain a motivated workforce; determine wage ranges tied to internal and external equity; develop incentive programs for different types of positions; establish a cost-effective benefit program; and comply with legal requirements.

HRMGT-196 Credits: 3 **Recruiting and Selection**

In this course, students will learn the importance of effective recruitment and selection processes as related to organizational effectiveness, sustainability, and competitive advantage. Students will gain an understanding of the role of human resource management in strategic planning (specifically as it relates or links to employment and workforce planning). Emphasis will be placed on the recruitment process, recruitment budget, and critical steps in the selection process, selection assessments, interviewing, and compliance with state and federal employment laws, regulatory agencies, and internal company policies.

HRMGT-197 Credits: 3 **Employee Training and Development**

Students will learn the fundamentals of training and development coordination. Emphasis will be placed on terminology, the systems approach to training (needs assessments, design, implementation, and evaluation), learning principles, training methodology, and evaluation criteria as well as various employee development initiatives. Students will be able to effectively report return on investment and value-add of training initiatives and the impact on overall strategic goal achievement.

HRMGT – HVAC2

HRMGT-198 Credits: 3

Business Ethics

Through this course, students will explore business ethics and corporate social responsibility in management practices and business activities. Students will review and examine ethical responsibilities and relationships between organizational departments, divisions, business management, and the public. Through analysis of case studies, practical application projects and discussion groups, students will determine and evaluate specific strategies and courses of action that affect the individual and organization.

HSM – Healthcare Services Management (Department 530)

HSM-127 Credits: 3

Health Services Clerical Rep 1

This course is an introduction to conducting administrative and clerical support in diverse outpatient medical environments via the cooperative education model (combined online lecture with on-the-job learning experiences). Prerequisite(s): Must be admitted to the Healthcare Services Management program (10-530-3).

HSM-128 Credits: 3

Health Services Clerical Rep 2

This course is a continuation of the administrative and clerical support skills learned in HSM-127 Health Services Clerical Rep 1. A cooperative education model (combined online lecture with on-the-job learning experience) will be utilized in this course. Prerequisite(s): Must be admitted to the Healthcare Services Management program (10-530-3).

HSM-129 Credits: 3

HR Management in HCOs

In this course, learners will be introduced to employment-related functions and practices healthcare organizations utilize to develop and maintain an effective workforce while complying with local/federal laws. Prerequisite(s): Must be admitted to the Healthcare Services Management program (10-530-3).

HSM-130 Credits: 3

Health Services Coordination I

This course is an introduction to Health Services Coordination. Learners will examine healthcare-based clerical and systems coordination, communication support functions, facilitate the use of technology, and customer service interactions. Prerequisite(s): Must be admitted to the Healthcare Services Management (10-530-3) or Health Unit Coordinator (30-510-2) programs. Instructor consent required.

HSM-131 Credits: 3

Health Services Coordination 2

This course is a continuation of the Health Services Coordination skills learned in HSM-130 Health Services Coordination I.

Students will be introduced to the functions and services provided within acute care areas as well as the various ancillary departments that facilitate diagnostic testing, treatment and support across diverse healthcare environments. Prerequisite(s): Must be admitted to Healthcare Services Management (10-530-3) or Health Unit Coordinator (30-510-2) programs. Instructor consent required.

HSM-132 Credits: 3

Health Services Applications

In this course, learners will utilize Electronic Health Records (EHR) simulation and case study-based practical learning to apply Health Services Coordination theoretical concepts, skills, and functions within diverse healthcare environments. Prerequisite(s): Must be admitted to Healthcare Services Management (10-530-3) or Health Unit Coordinator (30-510-2) programs. Instructor consent required.

HSM-139 Credits: 4

Bioethics, Human Research Practice and Compliance

Learners investigate the Human Research Protection Program (HRPP) to ensure the rights, welfare, and privacy of all individuals participating in biomedical and/or behavioral studies. Topics include foundations and concepts of Institutional Research Board (IRB) practices, legal constructs, operational functions and documentation practices. Students will also be introduced to quantitative and interpretive research methods as well as bioethical applications and case studies. Prerequisite(s): Instructor consent required.

HSM-143 Credits: 3

Healthcare Quality Management

This course introduces learners to various quality improvement methodologies utilized within diverse healthcare environments to encourage optimal patient care outcomes, safety, and satisfaction. Prerequisite(s): Must be admitted to Healthcare Services Management program (10-530-3) and instructor consent. Completion of or currently enrolled in HSM-146.

HSM-144 Credits: 3

Introduction to the Business of Healthcare

Students are introduced to the business aspects of healthcare through case study/project-based learning. Topics include organizational culture, leadership styles, managed care, patient education, documentation practices and reimbursement systems. Prerequisite(s): Instructor consent and must be admitted to the Healthcare Services Management program (10-530-3).

HSM-145 Credits: 3

Healthcare Law, Ethics and Professional Standards

Student will investigate federal/local health-related legislation, HIPAA, Patient Bill of Rights, EMTALA, the informed consent process, ethical and professionalism scenarios, as well as service-centered delivery standards and other

related topics. Prerequisite(s): Must be admitted to the Healthcare Services Management program (10-530-3) and instructor's consent is required.

HSM-146 Credits: 4

Leadership in Healthcare Organization

This project-based course prepares learners to use problem-solving and decision-making skills to ensure optimal outcomes for self, patients and related stakeholders within diverse healthcare environments. Prerequisite(s): Instructor consent and must be admitted to the Healthcare Service Management program (10-530-3). Completion of or currently enrolled in HSM-143.

HUMSVC – Human Services (Department 520)

HUMSVC-101 Credits: 3

Introduction to Human Services

The primary focus is to introduce the beginning student to human service concepts and the broad range of occupations, professions and training requirements within the field. Field experiences and volunteer work are required. Prerequisite(s): Must be admitted to the Human Service Associate program (10-520-3). Completion of or currently enrolled in HUMSVC-144.

HUMSVC-102 Credits: 3

Interviewing Skills

Students will practice and refine mastery of effective interviewing skills relevant to a wide range of human service practices. Prerequisite(s): Complete HUMSVC-101 and HUMSVC-144.

HUMSVC-103 Credits: 3

Group Work Skills

This is a practice-oriented course with a primary focus on developing skills, techniques and strategies utilized in a broad range of human service practice settings. A key component is to develop and demonstrate a workable knowledge base and awareness of the complexity of human behavior in groups. Prerequisite(s): Complete HUMSVC-144 and HUMSVC-101.

HUMSVC-104 Credits: 1

Field Preparation

Students make formal preparations for field experience assignment, as well as prepare to secure employment after graduation. Students develop a professional portfolio, practice interview skills, and reinforce their overall employment/work skills. Prerequisite(s): Complete HUMSVC-101, HUMSVC-102, HUMSVC-103, HUMSVC-113 and HUMSVC-144. Completion of or currently enrolled in HUMSVC-115.

HUMSVC-106 Credits: 4

Advanced Field Experience

Advanced Field Experience must be taken concurrently with HUMSVC-107 Field Experience Seminar. Students are assigned to a community human service agency where they work 20 hours per week under the joint supervision of the agency and MATC field supervisors. Advanced Field Experience is designed to enhance the knowledge,

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skills and behaviors essential for human service workers in the professional setting. Students apply the material from their coursework to a real work situation. Prerequisite(s): Complete HUMSVC-101, HUMSVC-102, HUMSVC-103, HUMSVC-104, HUMSVC-113 and HUMSVC-115. Completion of or currently enrolled in HUMSVC-107.

HUMSVC-107 Credits: 2 **Field Experience Seminar**

Field Experience Seminar must be taken concurrently with HUMSVC-106 Advanced Field Experience. This seminar provides the opportunity for students to discuss their field placement experiences and engage in consultation, networking and problem-solving. Students develop a strong knowledge base of community human service agencies and resources. Prerequisite(s): Complete HUMSVC-101, HUMSVC-102, HUMSVC-103, HUMSVC-104, HUMSVC-115, HUMSVC-144 and HUMSVC-113. Completion of or currently enrolled in HUMSVC-106.

HUMSVC-113 Credits: 3 **Documentation and Recordkeeping**

Students will practice techniques involved with maintaining clinical records, documentation of referrals, staffing and consultations. Prerequisite(s): Complete HUMSVC-101 and HUMSVC-144.

HUMSVC-115 Credits: 3 **Methods of Social Casework**

The application of casework theories, models and techniques, along with the management and coordination of case records, is the major focus of this course. Exercises will be designed to reflect variations in casework intervention techniques, depending upon the goals of the practice setting. This course should be taken the semester before entering Field Placement. A competency exam is given in the final stages of the course. Prerequisite(s): Complete HUMSVC-102, HUMSVC-103 and HUMSVC-113. Completion of or currently enrolled in HUMSVC-104.

HUMSVC-118 Credits: 3 **Introduction to Gerontology**

This introductory course includes a demographic, cultural and ethnic profile of older adults. Major theories about aging are explored, as well as the interrelationships of biological, psychological and social aspects of aging.

HUMSVC-121 Credits: 3 **Family Issues and Interventions**

This course focuses on issues related to families and family functioning relevant to the human services field. Special attention is paid to child maltreatment, domestic violence and addiction, with emphasis on the helping skills and services that are most effective. Prerequisite(s): Completion of or currently enrolled in HUMSVC-101 and HUMSVC-144.

HUMSVC-127 Credits: 3 **Disabilities and the Helping Profession**

This course emphasizes awareness of physical, psychological, and developmental disabilities

and examines the unique needs and resources of people with disabilities. Emphasis is placed on developing effective strategies for working with clients who are disabled.

HUMSVC-142 Credits: 3 **Multicultural Competence in Human Service Profession**

Students learn to build a foundation of culturally competent social work/human service practices that enables them to work effectively with diverse populations. Students develop skills through the acquisition of knowledge and awareness of various groups, cultures and lifestyles.

HUMSVC-144 Credits: 3 **Ethics in the Human Service Professions**

This is a survey course for the Human Services major. Relationships between client and worker are emphasized, as well as the responsibilities of workers to engage in decision-making reflective of exemplary ethics codes. Prerequisite(s): Must be admitted to the Human Service Associate program (10-520-3). Completion of or currently enrolled in HUMSVC-101.

HVAC1 – Air Conditioning Refrigeration and Heating (Department 401)

HVAC1-300 Credits: 4 **Basic Refrigeration/System Operations**

Theory and principles of refrigeration, and includes practical lab work. Students perform such skills as tube bending, flaring, soldering and brazing. The pressure-temperature relationship of refrigerants and pressure/enthalpy diagrams are studied to understand the basic refrigeration cycle. Refrigeration system leak checking, evacuation and charging are performed, along with refrigerant recovery in accordance with Environmental Protection Agency regulations.

HVAC1-301 Credits: 4 **Introduction to Refrigeration Service/Applications**

This course is designed to help the student understand types of compressor, refrigerant expansion devices, condensers, evaporators, accessories and system applications. Refrigeration piping design and installation is discussed and practiced. Refrigerant and oil management, recovery, recycling, reclaiming and retrofit is practiced following proper EPA procedures. Service and troubleshooting of small hermetic, commercial and central air conditioning systems is covered. Prerequisite(s): Complete HVAC1-300.

HVAC1-325 Credits: 3 **Oil Furnace Service and Maintenance**

This is a lecture/discussion and lab course which focuses on the basics of residential oil fired forced-air heating systems and its use as a commercial fuel. Students will learn such skills as knowing all the components of high-pressure

gun oil burners, learning the sequence of operations, understanding wire schematics, basic servicing skills, troubleshooting and combustion testing.

HVAC1-326 Credits: 3 **Gas Furnace Servicing and Maintenance**

This is a lecture/discussion and lab course which focuses on the basics of natural gas fired forced-air heating systems. The course includes covering basic atmospheric furnaces, induced draft and high efficient condensing furnaces. Students will learn such skills as knowing the components, learning the sequence of operations, understanding wire schematics, basic servicing skills, troubleshooting and digital combustion testing. Also included is an overview of the use of sustainable solar energy in residential hydronic heating. Prerequisite(s): Complete HVAC1-325.

HVAC1-332 Credits: 2 **Math for Heating, Ventilation, Air Conditioning and Refrigeration Service Technician**

This math course provides a step-by-step approach to math problems that students will encounter as heating and cooling technicians. This course provides the basic computational and problem-solving skills required for many aspects of HVAC industry, and for further study in trades' math and in intermediate-level algebra, geometry, and trigonometry. Topics include: whole numbers, fractions, decimals, proportion, percent, graphs, statistics, measurement and geometry.

HVAC1-350 Credits: 2 **Air Conditioning Principles**

This basic course covers air distribution, heating, filtering and refrigeration as applied to air conditioning for residential, commercial and industrial applications. Calculating heat gains and the use of a psychrometric chart are included.

HVAC2 – Air Conditioning Refrigeration and Heating Technology (Department 601)

HVAC2-109 Credits: 1 **Introduction to the HVAC Industry**

Students are introduced to the career opportunities and responsibilities in the air conditioning, heating and refrigeration industry. This course offers an orientation to the different duties, educational requirements and specialty areas within the HVAC industry.

HVAC2-110 Credits: 3 **Air Conditioning Fundamentals**

This course is a study of the fundamentals of air conditioning, including heating, cooling, humidification, human comfort and psychometrics. The laboratory will cover the use of measuring instruments during operation of boilers, pumps, furnaces and air handling units.

HVAC – INDSGN

HVAC2-113 Credits: 3

Electrical Fundamentals

This course provides experience with electrical theories, circuits, devices and equipment that may be needed by those who work in the field of heating, air conditioning and refrigeration.

HVAC2-114 Credits: 4

Electrical Controls and Systems

The function and basic operating principles of the controls and circuit components are verified as students wire complete heating and cooling systems on panel boards in the lab. Servicing and troubleshooting procedures are also covered. Prerequisite(s): Complete HVAC2-113.

HVAC2-115 Credits: 4

Refrigeration 1

Studies and calculations are made of the basic refrigeration cycle using the Mollier Diagram. The operation of the major parts is discussed along with the use of service tools such as gages, meters, vacuum pumps and refrigeration recovery. Prerequisite(s): Complete HVAC2-110 and HVAC2-113.

HVAC2-116 Credits: 4

Refrigeration 2

Studies and calculations are made of commercial and industrial refrigeration systems, along with the design and selection of equipment. Meters and service tools are used to diagnose and troubleshoot compressors, coolers, ice makers and freezers. Prerequisite(s): Complete HVAC2-115.

HVAC2-120 Credits: 4

Heating Systems 1

This lecture and laboratory course on forced-air systems covers the principles of gas and oil combustion units. Also included are large industrial complex designs and their practicability, with emphasis on variable volume, dual duct and multi-type systems. Prerequisite(s): Complete HVAC2-110 and HVAC2-113.

HVAC2-121 Credits: 4

Heating Systems 2

This course includes instruction and laboratory work on hydronic hot water systems and steam applications. Students will be able to design systems, estimate load conditions, and size pumps and expansion tanks. Prerequisite(s): Complete HVAC2-120.

HVAC2-125 Credits: 4

Control Application and Circuits

This course is designed to give students an understanding of the operation of various types of control devices and how combinations of these devices can be applied and varied to secure the desired conditions in heating and cooling systems. Prerequisite(s): Complete HVAC2-116 and HVAC2-121.

HVAC2-126 Credits: 3

Air Conditioning Systems

A practical approach to design, equipment selection and energy conservation for an air conditioning system, with a visit to a commercial

building to observe the operation of a complete mechanical and HVAC system with computer operation and monitoring. Prerequisite(s): Complete HVAC2-116 and HVAC2-121.

HVAC2-132 Credits: 4

Architectural and Mechanical Fundamentals

Instruction is given in design, application, blueprint reading, symbols and drawings of mechanical systems. Outlays of various heating and cooling systems in relation to architectural buildings are used. Proper mechanical schematics, isometric piping, and flow diagrams are discussed and drawn.

HVAC2-144 Credits: 3

Servicing and Troubleshooting Refrigeration and Air Conditioning

Various methods of troubleshooting and servicing of refrigeration and air conditioning systems are studied together with the use of service tools and meters on commercial and industrial equipment. Prerequisite(s): Complete HVAC2-116.

HVAC2-146 Credits: 2

Digital Energy Management Systems

Major types of automatic electrical control systems are described and compared. Programs, sensing and control points, signal transmission and processing, and other peripheral equipment that make up a complete building monitoring and control automation system are also explored. Prerequisite(s): Complete HVAC2-114.

HVAC2-148 Credits: 3

Heat Pumps

The Heat Pumps course is aimed at the servicing and installation of heat pumps. The curriculum provides instruction on equipment and procedures needed to check the heating and cooling performance of heat pump systems. Calculating heat gain and the use of a psychometric chart are included in this course. Due to concerns for both comfort and energy conservation, there is a need for technicians who have current training in the installation, troubleshooting and repair of heat pump equipment. Prerequisite(s): Complete HVAC1-300 or HVAC2-115.

HVAC2-149 Credits: 1

HVAC Summer Internship

This course is designed to place students with active HVAC/R contractors in Wisconsin in temporary summer hire positions. This provides students with the opportunity to apply learned skills to actual job site situations. This course is open only to associate degree program students and is subject to prerequisites. A total of 192 hours of on-the-job experience is required to complete this course. Prerequisite(s): Complete HVAC2-109, HVAC2-110, HVAC2-113, HVAC2-114, HVAC2-115 and HVAC2-120. Instructor consent required.

HVAC2-150 Credits: 2

Wiring Diagram Interpretation for HVAC/R

This course is designed to enhance the student's ability to interpret modern wiring diagrams for HVAC/R. The curriculum provides instruction on the usage, design, and interpretation of

wiring diagrams such as the schematic, pictorial, installation and hybrid. Instruction will include the interpretation of actual equipment wiring diagrams as well as designing wiring diagrams. Prerequisite(s): Complete HVAC-114 or ELECTY-396 and ELECTY-398.

HYDPNU – Hydraulic Pneumatics (Department 439)

HYDPNU-330 Credits: 5

Basic Hydraulics/Pneumatics

Students will be introduced to the basic principles of hydraulics and pneumatics, along with some of the basic components used in each system. This includes their principles of operation and more common problems. Some of the components covered include pumps, compressors, directional control valves, actuators, fluid conditioning devices, pressure control valves, conductors and sealing devices.

HYDPNU-336 Credits: 4

Fluid Power Circuits

This course begins with instilling an understanding of hydraulic/pneumatic circuits and their schematic symbols. Building on those skills, students then explore electrically/electronically relay logic circuits and their components. The students build skills through written and hands-on lab assignments designed to simulate real-world systems and the skills to install and troubleshoot them.

HYDPNU-338 Credits: 4

Mechanical Systems

This course teaches the fundamentals of mechanical transmission systems and allows for the practice of industry-relevant skills including how to operate, install, maintain, troubleshoot and design basic mechanical transmission systems using chains, V-belts, spur gears, bearings, and couplings. The installation, operation and applications of laser shaft alignment will be taught.

IH – Integrative Health (Department 546)

IH-102 Credits: 3

Introduction to Integrative Health

In this course, students will define what health and wellness means. They will also look at the roles that various modalities can play in the creation and maintaining of health in a holistic framework (mind, body and spirit).

IH-105 Credits: 3

Introduction to Wellness Coaching

Explores the art of gathering information about health, lifestyle and motivation through interviewing. Practical application of knowledge is applied to the interpersonal exchange between a wellness coach and client. Completion will prepare students for ACE Health Coach Certification.

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IH-108 Credits: 3

Natural Wellness Concepts

Explores the RN mode approach to health and wellness that builds on the ancient wisdom of our ancestors. Studies what makes us well along with the fundamentals of nutrition, fitness and exercise, as well as stress management. Considers the role of perspective on the healthcare choices consumers make. Prior to acceptance in the Integrative Health program, a criminal background check is required.

IH-112 Credits 3

Nutrition for Health /Wellness

In this course, students will explore the role of nutrition in supporting health, wellness and exercise. Guidelines and recommendations will be reviewed as a base to develop practical recommendations for the public and individuals. The course will build on introductory material in the areas of nutrition for health, nutrition for exercise, and nutrition and exercise for weight management. The goal of this course is to develop an understanding of the appropriate nutrition practices in relation to exercise or sport training to promote health, energy and adaptations.

IH-113 Credits: 3

Wellness Marketing and Technology

Explores health and wellness marketing and promotion in a variety of public and private settings. Develops skills in presentation and social media marketing and promotion to enhance the lives of individuals and communities. Students will also learn the fundamentals of telehealth.

IH-201 Credits: 1

Introduction to Eastern Medicine

The basics of the two Eastern medical models, Chinese Medicine and Ayurveda, will be explored. Students will learn basic principles that can later be applied to working with clients.

IH-203 Credits: 3

Theory and Practice of Fitness

Examines the basis of personal training and fitness to include anatomy and physiology of exercise, nutrition, assessment and training. Builds an academic foundation for careers in the fitness industry, while preparing students for the American Council on Exercise (ACE) Personal Trainer Certification.

IH-208 Credits: 3

Advanced Wellness

Presents a continuation of concepts learned in Natural Wellness Concepts. Students will learn how to address nutritional needs, compare diets, design exercise programs and use stress management techniques.

IH-215 Credits: 2

Population Health and Wellness

Addresses the incidence and cost of chronic diseases and other modern health issues. Study the four major causes of chronic disease (lack of physical activity, poor nutrition, tobacco use and excessive alcohol consumption). Emphasis

is placed on the signs, symptoms, prevention and management of these disorders within communities and society.

IH-218 Credits: 3

Health Coaching and Interviewing

Explores the practical issues related to wellness consulting including consulting agreements, session documentation, establishing motivational rapport, as well as information sharing and presentation. Students will learn strategies to powerfully lead wellness consultation sessions incorporating industry trends.

IH-225 Credits: 2

Healthy Aging

Overview of practices to promote healthy aging. This course will address nutrition, physical activity and prevention practices as well as an overview of medications commonly prescribed for the older adult. Emphasis will focus around the “well” elderly population and practices identified to address current aging trends.

IH-235 Credits: 2

Fitness Testing and Prescription

Apply exercise theory to assess and develop interventional wellness-related exercise programs for individuals and groups. Assess exercise risk factors and implement safety measures to assure client safety.

INDSGN – Interior Design (Department 304)

INDSGN-100 Credits: 3

Introduction to Interior Design

Course presents an overview of the field of interior design. Course will cover the principles and elements of design. Pencil and ink sketching techniques will be explored to obtain a comfort level with loose drawing and quick sketches. Shade shadow and color will be introduced as hand-rendering techniques. Students will be introduced to the concept and construction of the interior design presentation board, both manual and digital methodology.

INDSGN-102 Credits: 3

Basic Architectural Drawing

This course will introduce students to basic manual and computer-aided drawing for interior design. Students will learn how to properly use equipment and produce two-dimensional drawings.

INDSGN-104 Credits: 3

Interior Elements of Building Construction

This course will introduce students to basic components of building construction, including structural components and mechanical systems. Construction techniques will be converted and applied to the furniture design process, with emphasis on millwork and custom cabinetry design. Sustainable design and the health and welfare of occupants will be considered throughout.

INDSGN-106 Credits: 3

Materials and Furniture Design

This course will explore appropriate material and furniture selections and specifications including sustainable solutions. Exploration will include quality construction and design applications used in the furniture industry.

INDSGN-108 Credits: 3

Residential Studio

This course will explore residential planning guidelines and safety codes. Students will learn the basic design process from programming through design development. An emphasis will be placed on appropriate furniture and material selections and specifications. Housing styles, both aesthetic and functional, will be addressed. Prerequisite(s): Complete INDSGN-102.

INDSGN-110 Credits: 3

Advanced Architectural Drawing

This course will build on the Basic Architectural Drawing coursework and further develop student skills in both manual and computer-aided drawing techniques for interior design. Computer-aided 3D modeling will also be introduced and explored as a method of communicating design. Prerequisite(s): Complete INDSGN-102 and INDSGN-106.

INDSGN-113 Credits: 3

Textiles: Science, Application Design

This course will cover fiber and yarn composition as it relates to woven goods. Students will learn appropriate material specification per application based on textile, fiber and yarn properties. Emphasis will be placed on upholstery and applied use, as well as textile design, including exploration of warp, weave, pattern and color.

INDSGN-114 Credits: 3

Color and Light

This course will delve into the theory and practical application of color in interior environments. Students will explore how color can affect the perception of space due to physical, emotional and biological connotations. Emphasis will be placed on proper lighting techniques for true color selection. Students will learn to differentiate lamps and light sources and create lighting and switching plans. Prerequisite(s): Complete INDSGN-100.

INDSGN-116 Credits: 3

Kitchen and Bathroom Design

This course will cover the methods of functional kitchen and bathroom planning, as well as the activities of a professional kitchen and bathroom designer. Emphasis is placed on design techniques that are current with industry standards. NKBA guidelines will be addressed, along with the presentation and planning techniques of industry-specific software. Prerequisite(s): Complete INDSGN-102.

INDSGN – ITDEV

INDSGN-118 Credits: 3

Commercial Studio

This course will explore the contract design industry and expose students to basic planning conditions, including planning guides and the ADA. Emphasis will be placed on furniture and material selection and specification. Students will explore industry-specific software. Prerequisite(s): Complete INDSGN-102.

INDSGN-120 Credits: 1

Interior Design Internship

This course will explore basic professional business practices, including ethics and standards of the interior design profession. Students will explore various types of design employment and develop a working resume and cover letter. In addition, the student will observe and participate in work experience under the supervision of faculty in the Interior Design program. Prerequisite(s): Complete INDSGN-110 and INTRN-796 with minimum grade of C.

INDSGN-122 Credits: 3

Styles of Furniture and Architecture

This course will explore the evolution of interior design and the applied arts, including art and architecture. Students will consider related political, socioeconomic and demographic influences of each period from antiquity to contemporary style.

INDSGN-124 Credits: 3

Advanced Commercial Studio

Course will continue to establish the important role of code compliancy in commercial interiors. Emphasis will be placed on key industry segments of facilities and healthcare design. Advanced design techniques and strategies, such as schedules, legends and reflected ceiling plans will be covered, as well as an introduction to planning and specifying systems furniture. Students will learn Revit, an industry standard software, as it applies to the interior design process. Prerequisite(s): Complete INDSGN-118.

INDSGN-126 Credits: 3

Trends in Interior Design

This course will emphasize current issues and topics of concern as it relates to the field of interior design. Students will learn to identify and research design solutions and trends. Prerequisite(s): Complete INDSGN-102.

INDSGN-128 Credits: 3

Designer/Client Relationships

This course will focus on presentation selling and marketing strategies of interior design services and solutions. Emphasis is on cultivating and maintaining partnerships with clients and vendors. Students will develop oral, written and graphic presentations for residential and commercial design scenarios.

INDSGN-131 Credits: 3

Portfolio Development and Application

This course will prepare students for entry-level job interviews. Emphasis will be on appropriate use of industry terminology and presentation skills and tools. Students will organize a

portfolio of best works and will participate in a series of mock interviews. Prerequisite(s): Complete INDSGN-116 and INDSGN-118.

INDSGN-170 Credits: 1

Interior Design Internship II

This course will explore advanced professional business practices, including ethics and standards of the interior design profession. In addition, the student will observe and participate in work experience under the supervision of faculty in the Interior Design program. Prerequisite(s): Complete INDSGN-120.

INDSGN-172 Credits: 2

Revit for Interior Design

Students learn the fundamental concepts of AutoDesk Revit, from programming and layout to construction documentation. Process will include basic elements in Revit like walls, doors and glass partitions. Design sketches and DWG Files will be implemented into the workflow. Students will work with Revit tools, design options, color fill plans, area calculations, perspective views, walk-throughs, detailed schedules and material lists. Prerequisite(s): Complete INDSGN-110.

INDVTS – Individualized Technical Studies (Department 825)

INDVTS-102 Credits: 3

Career Assessment and Portfolio Development

This course is the preliminary component in the Individualized Technical Studies degree program. Students will develop a career portfolio that identifies their career goals and enables them to create a formal educational plan to attain their goals. The portfolio will document employment history, educational experiences, and military and community service, and identify the skills and competencies students have acquired related to their career goals. The completed portfolio will be the basis for establishing an Individualized Technical Studies degree path.

INTP – Interpreter Technician (Department 533)

INTP-126 Credits: 3

American Sign Language 1

The intent of this course is to provide the student with a basic understanding of American Sign Language — the form of sign language most commonly used by deaf adults when communicating with each other. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Five hours of participation in Deaf community events are required outside of class time. Students enrolled in programs other than Interpreter Technician may be able to use this course and INTP-127 to satisfy elective requirements.

INTP-127 Credits: 3

American Sign Language 2

This course is a continuation of American Sign Language 1 and is designed to further provide students with knowledge of fundamental survival signs. Students also acquire an awareness of the differences between deaf and hearing cultures. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Ten hours of participation in Deaf community events are required outside of class time. Prerequisite(s): Complete INTP-126 with minimum grade of C or instructor consent.

INTP-128 Credits: 3

American Sign Language 3

This course is a continuation of American Sign Language 2. It is designed to build daily conversational skills and to increase cultural awareness and sensitivity. Students will refine grammatical skills and practice sentence types in guided ASL conversations and formal presentations. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Fifteen hours of participation in Deaf community events are required outside of class time. Prerequisite(s): Complete INTP-127 with minimum grade of C or instructor consent.

INTP-129 Credits: 3

American Sign Language 4

This course is a continuation of American Sign Language 3 and is designed to broaden the topics students are able to discuss in ASL. News events, daily lives and social activities will be discussed and formal presentations will be made. Conversational proficiency is expected by the end of this course. This course will be taught in American Sign Language with some additional use of written English rather than spoken English. Twenty hours of participation in Deaf community events are required outside of class time. Prerequisite(s): Complete INTP-128 with minimum grade of C or instructor consent.

INTP-131 Credits: 3

Interpreting/Transliterate 1

This course provides students with intensive instruction on American Sign Language. Primary emphasis is placed on the acquisition of everyday vocabulary and the usage of basic ASL sentence structures. Language taught will focus on communicative purposes and everyday types of interaction. Prerequisite(s): Completion of or currently enrolled in INTP-127 and INTP-133.

INTP-133 Credits: 3

American Sign Language Linguistics

Provides students with instruction on the phonology, morphology, syntax and semantics of American Sign Language (ASL). These linguistic features are analyzed and compared to English language structures. Students are expected to apply these grammatical features in their conversational use of ASL. Prerequisite(s): Completion of or currently enrolled in INTP-127.

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INTP-138 Credits: 3 **Interpreting/Transliterate 3**

In this skill-building course, students work to develop their expressive and receptive interpreting skills. Materials containing general vocabulary and everyday types of information will be the focus of interpreting exercises. Activities focus on developing ASL/English interpretations with increasingly difficult levels of speed and technical complexity. Prerequisite(s): Completion of or currently enrolled in INTP-128.

INTP-139 Credits: 3 **Orientation to Deafness**

This course acquaints students with the types and causes of hearing impairment, the anatomy and physiology of the hearing mechanism, and the principles of audiology. The acquisition of language in both deaf and hearing persons is compared and contrasted. Students are also given an orientation to the Deaf community. Prerequisite(s): Completion of or currently enrolled in INTP-127.

INTP-143 Credits: 3 **Interpreting/Transliterate 2**

This course continues to provide students with intensive instruction in American Sign Language. Conversational patterns of ASL, usage of increasingly complex grammatical structures and continued expansion of vocabulary are stressed. The development of receptive ASL skills is a major area of focus. Prerequisite(s): Completion of or currently enrolled in INTP-128.

INTP-144 Credits: 3 **Interpreting/Transliterate 4**

This course continues to build the student's knowledge of the interpreting process. Students further develop their interpreting skills in both expressive and receptive modes. Materials containing the types of information encountered during freelance interpreting are the focus of interpreting exercises. Extensive use is made of videotaped materials during independent lab work. Prerequisite(s): Complete INTP-138 with minimum grade of C.

INTP-145 Credits: 2 **The Interpreting Process**

This course teaches students how to analyze texts at the lexical, sentential and textural levels for the purposes of interpretation. Conceptualization, concept-mapping, paraphrasing and consecutive interpreting are some techniques that are explored to enhance the student's ability to render equivalent messages from ASL to English or from English to ASL. Prerequisite(s): Complete INTP-133 with minimum grade of C.

INTP-147 Credits: 3 **Interpreting Ethics**

Students study the history of the interpreting profession, the modes of the interpreting process and the RID Code of Professional Conduct (CPC). Emphasis will be placed on interpretation of the CPC, ethical behavior as an interpreter and learning to make ethical decisions in the

workspace. Students will apply knowledge of the RID CPC during extensive role-plays and group interactions. Prerequisite(s): Complete INTP-131 and INTP-133 with minimum grade of C.

INTP-151 Credits: 3 **Educational Interpreting: Theory and Function**

This course explores the role an interpreter has in educational settings. Theories related to the historical philosophies of deaf education and the ramifications for deaf students are discussed. Sign language systems used in school settings are analyzed and receptive/expressive interpreting activities focus on school-based texts. Tutoring skills, note-taking skills and other duties related to the educational setting are covered. (Class is taught without voice.) Prerequisite(s): Completion of or currently enrolled in INTP-129.

INTP-152 Credits: 2 **Concept Mapping**

This course provides an ongoing intermediate to advanced level discourse analysis of both ASL and English. Students will study general discourse issues as well as topics specific to ASL and spoken English. This course also outlines implications for accurate interpretation in analyzing the source and target languages.

INTP-153 Credits: 3 **Occupational Experience**

Students are assigned work with a human service provider who works extensively with deaf clients and/or deaf employees. The particular interests of students are matched with human service providers with similar interests (i.e., medical, mental health and general freelance work). Students then freelance interpret on a full-time basis for an eight-week period. Prerequisite(s): Complete INTP-144 and INTP-151 with minimum grade of C.

IT – Information Technology (Department 107)

IT-107 Credits: 3 **Social Networking and Business**

This course is an introduction to social media, communication and collaboration tools utilized professionally in a business environment. Students will learn to set up, use and support these tools. Emphasis will be placed on proper business communication, development of a personal resume and the implementation of a professional persona using social media that supports work within the information technology field.

ITDEV – IT Development Programming (Department 152)

ITDEV-110 Credits: 3 **Introduction to Object-Oriented Programming Using C#**

This course introduces the fundamental concepts of programming from an object-oriented

perspective. Topics include class design, simple data types, control structures, storage allocation, scope and simple data structures (arrays). Students will develop algorithms to solve programming problems and use debugging techniques to test their solutions. The course emphasizes good software engineering principles while developing fundamental programming skills in the context of a language that supports the object-oriented paradigm. Emphasis will be placed on class design, implementation and problem solving. MATC strongly recommends that students take this course concurrently with ITDEV-117 Logic and Problem-Solving. Prerequisite(s): Complete ITDEV-117.

ITDEV-115 Credits: 3 **Intermediate Object Oriented Programming**

This course focuses on intermediate object-oriented concepts, such as encapsulation, data hiding, inheritance, and polymorphism. Students will be introduced to file I/O, data abstraction, pointers and database access. Emphasis will be on class design, implementation and problem-solving using databases. MATC strongly recommends that students complete ITDEV-110, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete ITDEV-110.

ITDEV-117 Credits: 3 **Logic and Problem-Solving**

This course presents a formal approach to logical thinking and problem-solving using mathematical and programming logic structures. For students to think logically and solve problems, they need to think abstractly. This means to use logically valid forms of argument, both direct and indirect, to derive new results from those already known to be true. This course will teach these mathematical and programming logic structures in context with fundamental object-oriented programming principles. MATC strongly recommends that students take this course concurrently with ITDEV-110 Introduction to Object-Oriented Programming.

ITDEV-140 Credits: 3 **Programming With JAVA**

Using the latest Java SE Development Kit, students will learn and apply Java programming language to create both console and graphical user interface applications. Topics explored include data types, decisions, loops, methods, data structures, I/O, exceptions, object-oriented skills, user interfaces and the use of relational databases. Successful completion of ITDEV-110 prior to enrollment in the class is required or instructor's permission. Prerequisite(s): Complete ITDEV-110.

ITDEV-149 Credits: 3 **Data Reporting**

Introduces database querying and reporting using leading tools and frameworks. Learners will design, create and publish reports that access diverse datasets using a reporting tool. Additional topics include SQL, report distribution, data analysis, data security and ethical handling of sensitive data.

ITDEV – ITSEC

ITDEV-150 Credits: 3

Database Management With SQL

This is a fundamental course in database concepts, design and implementation involving the relational database model. Students will create, query and update relational databases using Structured Query Language (SQL).

ITDEV-154 Credits: 3

Data Structures and Programming

This course focuses on advanced data structures used in programming. Students will solve problems by using advanced data structures such as trees, queues, stacks, linked lists and heaps. MATC strongly recommends that students complete ITDEV-115, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete ITDEV-121, ITDEV-140 or ITDEV-185.

ITDEV-160 Credits: 3

Web Programming With Scripts (Javascript)

This course teaches students how to build websites that interact with the user by means of client-side scripts. HTML and CSS techniques are used for page formatting. Programming in JavaScript with jQuery is used to create interactive web pages.

ITDEV-161 Credits: 3

Web Programming 1

This course covers interactive web programming using AJAX, APIs, PHP, MySQL and Angular JS. Students publish their pages to a web server. Prerequisite(s): Complete ITDEV-160.

ITDEV-162 Credits: 3

Client/Server and E-Commerce Implementation

Students will investigate the theory and concepts of client/server implementations with advanced database concepts and practices including the use of both of these technologies in the development of electronic commerce sites. MATC strongly recommends that students complete ITDEV-150 and ITDEV-177, or have the equivalent skills, prior to enrollment in this course.

ITDEV-164 Credits: 3

Web Programming 2

The student will create websites that use more advanced properties of the ASP.NET tools used in ITDEV 162. The student will learn how to deploy and set up websites using the Internet Information Server. Advanced material in PHP will also be covered. Prerequisite(s): Complete ITDEV-161.

ITDEV-177 Credits: 3

Systems Analysis and Design

This course will teach techniques and approaches to develop new software systems efficiently and effectively. It will introduce the phases that a project must undergo from inception to completion, as well as the various methodologies that can be employed to properly manage a project. It will also identify the skills and team members required to successfully develop and launch the new system. Prerequisite(s): Complete ITDEV-150.

ITDEV-181 Credits: 3

Mobile Application Development

Students will learn how to create applications for Mobile Devices, expanding upon concepts presented in ITDEV-140 Programming With Java. Topics include XML, widgets, lists, menus, file and database access, as well as communicating with the internet. Prerequisite(s): Complete ITDEV-140.

ITDEV-182 Credits: 3

Hybrid Mobile App Development

This course continues to focus on Android Mobile technologies introduced in ITDEV-181. Students will create a mobile app from the conceptual idea to publishing on the Google Play store. They will design, using an appropriate design pattern, code, and publish the mobile app. Advanced mobile technologies such as multi-threading, accessibility, localization, camera, Google maps, and cloud-based services will be explored. Prerequisite(s): Complete ITDEV-181.

ITDEV-184 Credits: 3

iPhone and iOS Mobile App Development

Students will learn the basics of the iPhone SKD including user interface design, multi-view applications, table views, navigation controllers, data persistence, drawing, taps and touches, using libraries and localization. Students will develop several basic iPhone applications that provide the foundations of developing more advanced applications. Students will learn Objective-C and Swift programming languages while creating applications for Mac OS interfaces. MATC strongly recommends that students complete ITDEV-185 or have prior Mac OS experience before enrolling in this course.

ITDEV-185 Credits: 3

Advanced OO Programming

This course is the third of a four-course sequence focusing on the object-oriented programming paradigm. The focus of this course will be the C programming languages (C, C++ and Objective-C). Students see the similarities and differences of popular procedural and OOP languages while solving problems. Emphasis is on algorithms, data structure and software engineering. Topics include header files, pointer data types, encapsulation, abstraction, inheritance and polymorphism as well as an introduction to design patterns. Prerequisite(s): Complete ITDEV-115.

ITDEV-198 Credits: 1

Internship

A cooperative training program involving actual work experience. Students obtain a position at an approved work station and work under the supervision of a teacher-coordinator. Prerequisite(s): Complete INTRN-796.

ITDEV-199 Credits: 2

Integrated Project

The Integrated Project course is a capstone project that reflects the student's culminating experience in the program. In this course, students integrate their knowledge and

skills in IT, reflect upon the work they have produced throughout their program, put their thoughts about their work into writing, demonstrate core ability skills, and display overall comprehension of their own discipline through the implementation, demonstration and documentation of the capstone project. Students evaluate their learning based on the program's specific learning outcomes. MATC strongly recommends that students take this course concurrently with ITDEV-198.

ITNET – IT Networking (Department 150)

ITNET-101 Credits: 3

Network Communications (Network+)

Network Communications provides an introduction to networking technologies and provides good background material for students interested in preparing for CompTIA's broad-based, vendor-independent networking certification exam, Network+. This course covers a wide range of material about networking, such as LAN components, OSI model and standards organizations, transmission media, topologies, protocols (such as TCP/IP), interconnecting devices, wide area networks and security. Through some hands-on exercises, demonstration and discussion, students will develop an understanding of what is involved in basic network design, network management, security and troubleshooting.

ITNET-110 Credits: 3

Managing Windows Desktop (Client) Operating System

This course provides preparation for the Microsoft 365 Certified: Modern Desktop Administrator Associate certification (Exams MD100 Windows 10 and MD-101 Managing Modern Desktops). Students are introduced to the Microsoft Windows 10 operating system through lectures, demonstrations, discussions and hands-on lab activities. Topics include installation, configuration, hardware and application management, troubleshooting, networking, and securing Windows 10.

ITNET-111 Credits: 3

Microsoft Server Administration 2

This course provides certification exam preparation for Windows Server 2016 (70-742). Topics include installation, configuration, management and maintenance of Active Directory Domain Services (AD OS); management of group policies; and various other Active Directory and server services. Through discussions, demonstrations and hands-on labs, ITNET-111 advances the content presented in ITNET-110 and ITNET-112. MATC strongly recommends that students complete ITNET-112, or have equivalent skills, prior to enrollment of this course.

ITNET-112 Credits: 3

Microsoft Server Administration 1

This course provides certification exam preparation for Windows Server 2016 (70-740). Topics include server installation, storage,

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configuration and management; file and share access; print and document services; Active Directory; Group Policy; DNS; DHCP; and various OS features available in Windows Server 2016. Through discussions, demonstrations and hands-on labs, ITNET-112 advances the content presented in ITNET-110. MATC strongly recommends that students complete ITNET-110, or have equivalent skills, prior to enrollment of this course.

ITNET-131 Credits: 3 **Introduction to Networks (Cisco 1)**

This is the first of three classes designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. Instruction includes networking, networking terminology and protocols, network standards, LANS, WANS, OSI models, cabling, IP addressing, and network standards. Students who complete all four courses will be prepared to take the Cisco Certified Networking Associate (CCNA) exam as well as the Comp TIA Network+ exam at MATC's VUE test center.

ITNET-132 Credits: 3 **Routing and Switching Essentials (Cisco2)**

This is the second of three classes designed to provide students with classroom and laboratory experience in networking technology. Instruction includes Ethernet, TCP/IP, EIGRP, OSPF and the Cisco IOS. Emphasis is placed on router and switch configuration. MATC strongly recommends that students complete ITNET-131, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete ITNET-131.

ITNET-133 Credits: 3 **Scaling Networks (Cisco 3)**

This is the third of three courses designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. A task analysis was used in the development of the content standards. The focus of this course continues with objectives from the CCNA exam. Subjects include VLSM, EIGRP, OSPF, Ethernet Switching, VLANs and Rapid Spanning Tree Protocol (STP). Prerequisite(s): Complete ITNET-132.

ITNET-154 Credits: 3 **Scripting for Network Administrators**

Successful network administrators use scripting languages to automate the configuration of clients, servers and cloud environments. Students will learn about the Python and PowerShell scripting languages. Python will be used to learn the fundamentals of variables, mathematical operators, logical operators, conditionals, loops, functions and error handling. PowerShell will be used to learn the administration and automation of Windows servers and clients. Topics include scripting, pipelines, formatting, variables,

remote PowerShell, data types, looping, comparison operators and how to run/edit scripts. Students should complete ITNET-112, or have equivalent skills, prior to enrolling.

ITNET-157 Credits: 3 **Virtualization Technologies**

This hands-on training course explores installation, configuration, and management of VMware vSphere, which consists of VMware ESXi/ESX and VMware vCenter Server. Students are introduced to virtualization and storage management concepts using VMware server virtualization products. This course is required to sit for the VMware Certified Professional (VCP) examination. Students should be concurrently enrolled in (or have completed) ITNET-111 and ITNET-134 prior to taking this course.

ITNET-159 Credits: 3 **Cloud Infrastructure Services**

Cloud Infrastructure Services is an "open" course focused on virtualization and the technology concepts and principles required to build a cloud infrastructure. This vendor-neutral class is applicable to all IT professionals whose responsibilities are expanding across all technology domains including servers, storage networking and applications.

ITNET-161 Credits: 2 **Linux Overview**

This course introduces the basics of Linux operating systems. Students learn how to install, configure and use Linux. The main emphasis is on the Linux shell commands and simple shell scripts.

ITNET-198 Credits: 1 **Network Specialist Internship**

Students enrolled in this course complete an internship involving actual work experience or a networking capstone project. The internship requires students to obtain an instructor-approved IT position and work under the supervision of a manager/coordinator. The networking capstone project requires students to integrate their knowledge and skills in IT, reflect upon the work they have produced throughout their program, put their thoughts about their work into writing, demonstrate core ability skills and display overall comprehension of their program. MATC strongly recommends that student complete or enroll in ITNET-134, or have the equivalent skills, prior to enrollment in this course. Prerequisite(s): Complete INTRN-796 with minimum grade of C.

ITNET-199 Credits: 2 **Integrated Project — Network Specialist**

The Integrated Project course is a capstone project that reflects the student's culminating experience in the program. In this course, students integrate their knowledge and skills in IT, reflect upon the work they have produced throughout their program, put their thoughts about their work into writing, demonstrate core ability skills through the implementation, demonstration and documentation of capstone project and display overall comprehension of their program. MATC

strongly recommends that students complete or enroll in ITNET-198, or have the equivalent skills, prior to enrolling in this course.

ITSEC – IT Information Security (Department 150)

ITSEC-114 Credits: 3 **Information Security Principles**

This course is designed to give students a broad knowledge of information security while addressing the five phases of security: inspection, protection, detection, reaction and reflection. Students learn to analyze the most critical risks and threats, define an information security strategy and architecture, and plan for and respond to intruders. The 10 domains of the CISSP certification and Windows workstation security are covered. Students in online sections of this course have access to a virtual server to complete the required lab work.

ITSEC-122 Credits: 3 **Web/Application Security**

This course is designed to educate students about the security issues of the web, web Browser and web services. In particular, students will learn about the client as well as server-side security measures. At course completion, students will be able to define, design and implement a secure website as well as establish an end-to-end secure web link between a client and server. Topics such as SSL, open SSL and CGI Security are covered. MATC strongly recommends that students complete ITSEC-124, or have the equivalent skills, prior to enrollment in this course.

ITSEC-124 Credits: 3 **Network Security (Security+)**

Students will focus on the fundamentals and implementation of network security including secure access methods and vulnerabilities in network protocols, operating systems and network applications. Students will use techniques and tools for developing secure infrastructure. MATC strongly recommends that students complete ITNET-101, or have the equivalent skills, prior to enrollment in this course.

ITSEC-126 Credits: 3 **Computer Forensics**

This course familiarizes the student with methods of properly conducting a computer forensics investigation, beginning with a discussion of ethics. The goal is to conduct a structured investigation to determine exactly what happened, and who was responsible, and to perform the investigation in such a way that the results are useful in a criminal proceeding. Students will practice how to collect and analyze the digital evidence left behind at a crime scene. This course maps to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. MATC strongly recommends that students complete ITSUP-102, or have the equivalent skills, prior to enrollment in this course.

ITSEC – LDRSHIP

ITSEC-136 Credits: 3

Unix/Linux Administration and Security

Unix/Linux server hardening methods and tools are covered in this course. In addition, the security tools and application inside Unix/Linux are taught. Particularly, students will learn how to protect password files, monitor log files, use port scanners, network scanners, traceroute and ping. Additional topics include secure remote connections such as SSH. MATC strongly recommends that students complete ITSEC-124 and ITNET-161, or have the equivalent skills, prior to enrollment in this course.

ITSEC-145 Credits: 3

Perimeter Security

This course covers advanced router configuration, advanced firewall configuration and management, VPN solutions, configuration and management of IDS/IPS, log monitoring, consolidation and reporting. Designing secure network architectures is also covered. Labs utilize a variety of equipment and software from a number of different vendors. MATC strongly recommends that students complete ITSEC-140, or have the equivalent skills, prior to enrollment in this course.

ITSEC-146 Credits: 3

Security Measures and Intrusion Detection

This course is concerned with the collection of events from audit trails, network monitoring systems and intrusion detection systems as well as developing a system to provide early warning of information attack. The class teaches students how to identify, exploit and secure well-known and little-known vulnerabilities in Microsoft Windows and UNIX/Linux operating systems. Moreover, it explores common weaknesses in router and firewall installations, teaching the methods that are used to circumvent traditional and “hardened” security filters or firewalls. This core technology area is also concerned with fusion of data from multiple sensors to form a real-time picture of the Information Assurance battle space. Protective measures and Incident Response Checklist are covered in this course. MATC strongly recommends that students complete ITSEC-135 or ITSEC-136, or have the equivalent skills, prior to enrollment in this course.

ITSEC-148 Credits: 3

Securing Wireless Devices and Networks

Students learn wireless network fundamentals and physical layer standards to build and secure WLAN; to install, configure and manage Cisco Air connect and 3Com airConnect security and network security settings; and troubleshooting. Devices such as PDAs, wireless cameras and other cutting-edge technologies will be explored. MATC strongly recommends that students complete ITSEC-124, or have the equivalent skills, prior to enrollment in this course.

ITSEC-151 Credits: 3

IT – Auditing

In this course, all six domains of the Certified Information Systems Auditor (CISA) exam are covered including the knowledge and technical

concepts as specified by CISA certification. These domains include Information System Auditing Process, IT Governance, System and Infrastructure Lifecycle management, IT Service Delivery and Support, Protection of Information Assets, Business Continuity and Disaster Recovery. MATC strongly recommends that students complete ITSEC-114, or have the equivalent skills, prior to enrollment in this course.

ITSEC-152 Credits: 3

Information Security Risk Management

This course will introduce the student to information security risk management frameworks, based on internationally accepted standards from the National Institute of Standards and Technology (NIST), the International Organization for Standardization (ISO) and others. Students will become familiar with the basic aspects of the various standards, and will practice their use in measuring risks related to security, regulatory compliance and audits. At course completion, students will have an understanding of risk management strategies and practices, as well as some basic skill in practical application of those strategies.

ITSEC-156 Credits: 3

Mobile Devices Forensics

In this course, students will learn the history and evolution of mobile forensics, understand the cellular network and components and learn the legal aspects in obtaining cellular evidence. Also the class will cover imaging mobile devices, understanding cellular records and their use in cellular evidence. Students will learn to utilize forensics tools to conduct analysis of mobile devices, in addition to being able to create an evidence case report.

ITSEC-166 Credits: 3

Advanced Forensics

This course will address advanced topics in computer forensics, mobile forensics, network forensics and incident response. Topics include data hiding, encryption, advanced Windows registry, Steganography and password recovery. Prerequisite(s): Complete ITSEC-126.

ITSEC-176 Credits: 3

Malware Forensics

This course will start from malware basics and gradually teach the learners how to perform a malware forensic investigation as a part of incident response. In addition, an introduction to reverse-engineering malware will be provided. Since familiarity with programming is necessary for this course, an introduction to programming using Python and/or C is covered at the beginning of the course. In addition, general familiarity with networking and TCP/IP, operating system internals (Windows and Unix), computer security, digital forensics and incident response is very essential for this course.

ITSEC-191 Credits: 1

Information Systems Security Internship 2

Students will explore the field of professional computing, information technology and

information systems security by working in a real work environment and applying the skills gained from courses previously taken from information systems security program. The practical work experience will be gained under the supervision of an Information Technology professional supervisor in day-to-day, on-site technical work. Prerequisite(s): Complete INTRN-796 with minimum grade of C.

ITSEC-194 Credits: 1

Security Project Implementation

This course helps students gain in-demand skills. The course emphasizes real and hands-on experience in different areas of security such as security assessment, virtualization, log file consolidation, design and installation of security tools such as firewalls, IDSs, VPNs, and other existing or new technologies.

ITSUP – IT Computer Support (Department 154)

ITSUP-101 Credits: 3

Computer Information Systems Fundamentals

Students will learn the concepts and terms to enable them to better understand the role of information technology, careers for computer professionals, basics in computer hardware, software and networking, as well as the internet in business and society. A brief overview of the history of information technology, as well as strategic future direction, is discussed. Topics include technology trends that affect computing and everyday life, such as concerns for data security, personal privacy online safety, controversy over digital rights management, open source software and smartphone and tablet devices and more. In addition, coverage of latest release of Microsoft Windows and Office will introduce you to exciting new features of next-generation consumer and enterprise software. The course is a combination of lecture discussion and hands-on lab assignments.

ITSUP-102 Credits: 3

CompTIA A+ Essentials and IT Technician

This course prepares students for the CompTIA A+ Certification exam. Students will work on hands-on labs that build and configure computers; replace parts; install and configure operating systems, and troubleshoot hardware, software, networking, and security problems. Additional topics and hands-on activities include multithreading, UEFI, disk and memory management, virtualization, mobile devices, laptops, OS software updates and optimization, managing device drivers, and virus protection.

ITSUP-106 Credits: 1

Linux Support

Students will acquire a practical understanding of how Linux works. This course will include Linux OS fundamentals, basic commands and file system management as it applies to technical support. Students will work on hands-on labs that will use the GUI interface as well as command line tools.

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ITSUP-109 Credits: 3

Microsoft Office for IT Professionals

This course prepares students to effectively utilize Microsoft Office in IT organization. Students will learn features of the latest versions of Microsoft Excel, Microsoft Word, Microsoft Access, OneNote and PowerPoint through hands-on labs, comprehensive projects and business scenarios.

ITSUP-111 Credits: 3

CompTIA A+ Software Support

This course prepares students for the CompTIA A+ Software Certification exam. Students will work on hands-on labs to install and configure operating systems including Windows, iOS, Android, Apple OS X and Linux. They will also learn security, the fundamentals of cloud computing and operational procedures.

ITSUP-140 Credits: 3

Support Center Analyst (HDI-SCA, HDI-DST, ITIL)

This course prepares students for HDI-SCA (Help Desk Institute Support Center Analyst), HDI-DST (Desktop Support Technician) and ITIL Foundation certifications by teaching how to provide front-line support for customers. The course focuses on strategies for effective customer service with an emphasis on problem-solving and troubleshooting skills, call-handling procedures, incident management and call tracking applications. Topics such as active listening skills and effective communication strategies will be covered as well as strategies for improving customer interactions.

ITSUP-150 Credits: 3

Mobile Device Repair and Maintenance

This course provides students with expert mobile device repair knowledge and advanced repair skills. It incorporates both classroom education and hands-on, real-world repair scenarios where students will gain immediate knowledge to service and repair smartphones, cellular phones and hand-held devices. Students learn how to disassemble and repair iOS, Android and Windows Mobile devices. Students also learn how to troubleshoot phone issues, resolve network communication issues on the device, replace batteries, LCD, broken lens, cameras and touch screens. Course also teaches students the concepts of data transfer and recovery, jailbreaking, and cell phone locking and unlocking.

ITSUP-152 Credits: 3

MacOS Support Essentials

This course provides an in-depth exploration of troubleshooting of the MacOS Operating system and prepares students for Apple Certified Support Professional (ACSP) Certification. This course will teach students the best methods for effectively supporting users of MacOS. Course covers labs on installation, setup and configuration, MacOS Recovery, software updates, file system, FileVault, permissions and sharing, data management, application

and processes, network configuration, network services, peripherals, printing, and system startup. The course is a combination of lecture and hands-on exercises that provides practical real-world experience.

ITSUP-153 Credits: 3

Mobile Device Administration

This course prepares students for managing mobile devices in the enterprise, including smartphones, tablets and laptops. Students will gain skills required to understand and research capabilities of mobile devices and features of over-the-air technology. Students will learn device administration for the iOS and Android mobile platforms. Students will also learn how to deploy, integrate, support and manage a mobile environment, ensuring proper security measures are implemented for devices while maintaining usability. This course is a combination of lectures and hands-on exercises with physical mobile devices, virtual mobile operating systems and mobile device management (MDM) services.

ITSUP-155 Credits: 3

IT Career Skills

This course prepares students for careers in information technology. Students learn about the variety of positions available in IT computer support, different career paths in IT, how to prepare a quality resume, search for a job and apply for a position, go through the interview process, complete a background check, and secure employment. Students participate in mock interviews and learn how to use social media to increase their chances to get hired.

ITSUP-177 Credits: 3

Introduction to IT Projects, Teamwork and Self-Management

This course prepares students for teamwork and working on IT projects. Students learn about a variety of project concepts and how to work with colleagues, team members and stakeholders. Concept of self-management will be introduced to help students organize their work and improve their soft skills. Students will learn the concept of "return on investment" and "value delivery" for the organization. Students participate in group exercises, create and execute project plans, and work together on team activities.

ITSUP-197 Credits: 3

Business Data Analytics

Through labs and hands-on exercises, students will learn about business data analytics. Students will learn to report, inspect, clean, transform and model business data with the goal of discovering useful information, suggesting conclusions and supporting organizational decision-making.

ITSUP-198 Credits: 1

Computer Support Specialist Internship

This internship course directs students to obtain an IT internship at local area employers based on the jobs available. Students will perform required IT computer specialist support

activities, configure and install new software, troubleshoot, and solve issues with hardware, OS and applications, networks and virtual setups and configurations. Prerequisite(s): Complete INTRN-796 with minimum grade of C.

ITSUP-199 Credits: 1

Integrated Project – Computer Support Specialist

The integrated project course is a capstone project that reflects the student's culminating experience in the IT Computer Support Specialist program. In this course, students integrate their knowledge and skills in IT by working on the final project, demonstrating core ability skills and displaying overall comprehension of the discipline.

LDRSHP – Leadership Development (Department 196)

LDRSHP-164 Credits: 3

Personal Leadership Strategies

In this course, students apply the skills and tools necessary to deal with time management, stress and related challenges to leaders. Each student demonstrates the application of time management techniques, personal planning, continuous learning, valuing rights and responsibilities of others, effective communication, assertiveness, and dealing effectively with stress.

LDRSHP-168 Credits: 3

Organizational Development

Learners apply skills and tools necessary to deal with organizational behavior and change. Learners apply intervention strategies to deal with restructuring globalization, team building, conflict resolution and process consultation. Learners analyze how an organization's goals, decision-making, performance management and planning impact goal attainment, business outcomes, organizational structure, job design and employee participation. Learners evaluate the importance of culture, emotional intelligence and conflict management.

LDRSHP-189 Credits: 3

Team Building and Problem-Solving

In this course, students apply the skills and tools necessary to facilitate problem-solving in a team environment. Each student demonstrates the application of the benefits and challenges of group work, including necessary roles in a team, stages of team development, different approaches to problem-solving, consensus, a systematic process of problem definition, data acquisition, analysis, developing alternative solutions, solution implementation and evaluation.

LDRSHP – MACHTL

LDRSHP-190 Credits: 3

Leadership Development

In this course, students apply the skills and tools necessary to fulfill their role as a modern leader. Each student demonstrates the application of evaluating leadership effectiveness and organization requirements, including individual and group motivation strategies, implementing the mission and goals, ethical behavior, personal leadership style and adaptation, impacts of power, facilitating employee development, coaching, managing change, and effective conflict resolution.

LDRSHP-191 Credits: 3

Supervision

In this course, students apply the skills and tools necessary to perform the functions of a front-line leader. Each student demonstrates the application of strategies and transition to a contemporary supervisory role including day-to-day operations, analysis, delegation, controlling, staffing, leadership, problem-solving, team skills, motivation and training.

LDRSHP-195 Credits: 3

Communication Strategies for Leaders

In this course, students apply the skills and tools necessary to effectively deliver management messages in a written and oral format. Each student demonstrates the application of analyzing the communication situation, including planning and preparing the message; developing persuasive, informational, and negative messages in written and oral formats; demonstrating skills in basic writing mechanics and English grammar; demonstrating effective delivery of oral presentations; incorporating visual aids; and showing sensitivity to diverse audiences.

LOGMGT – Logistics Transportation Materials Management (Department 182)

LOGMGT-105 Credits: 3

Enterprise Resource Planning

This course will provide the fundamentals of enterprise resource planning (ERP) systems concepts, and the importance of integrated information systems in an organization. The focus of this course is on illustrating procurement, production and sales business processes using ERP software. Students will receive application experience utilizing an SAP (Systems, Applications and Products) database.

LOGMGT-106 Credits: 3

e-Commerce Logistics

The continued double-digit growth of e-commerce is not solely a matter of retailers readjusting and getting smarter about their products and last-mile shipping strategies. In fact, the impact of digital commerce and the subsequent challenge of omni-channel fulfillment cuts across every part of the organization. This course will observe supply chain management through the lens of retail and

e-commerce. Students will investigate emerging logistics strategies, tools, and technologies that enable order fulfillment in the rapidly evolving e-commerce space. Because satisfied customers lead to return visits and increased sales, the fundamental lesson of this course will reveal how choices at the beginning of the retail value chain affect service aspects at the end of the logistics chain.

LOGMGT-107 Credits: 3

Blueprints for Career Success

Blueprints for Career Success in Supply Chain Management is a dynamic course offering internships, specialized career training, networking opportunities and social media proficiency. Designed to integrate academic knowledge with practical industry experience, it equips students for success in the supply chain sector. Students will focus on real-world skills, employability and building industry connections, setting the stage for a thriving career in this essential field.

LOGMGT-144 Credits: 3

Production Planning and Inventory Control

This course focuses on inventory and planning concerns. The planning side of operations is examined including master scheduling, requirements planning, capacity management, shop floor control and forecasting.

LOGMGT-146 Credits: 3

Operations Management

This course is designed to acquaint students with the specialized vocabulary and problems encountered in manufacturing management. Tools and techniques for solving production process problems are presented with an emphasis on quality and productivity.

LOGMGT-164 Credits: 3

Supply Chain Management

This course provides the student with an overview to supply chain management. Topics covered in the course include transportation, distribution, customer relationship management, supplier management, forecasting, Just In Time, inventory management, Total Quality Management and facilities management.

LOGMGT-170 Credits: 3

Procurement

This course includes an analysis of the purchasing process, a review of purchasing activities and identification of purchasing problems in modern organizations. Attention is given to the role of purchasing in the organization, supplier selection, negotiation, sourcing issues, inventory management and quality concerns.

LOGMGT-184 Credits: 3

International Logistics

In the management of international logistics, both import and export are studied. Attention is given to the data necessary for accurate preparation of export documentations. Management and selection of international transportation modes and associated regulations are explained.

LOGMGT-190 Credits: 3

Logistics

This course provides an understanding of the key logistics concepts and the issues affecting the movement and storage of goods. Particular emphasis will be placed on providing a broad and general exposure to business logistics. This will include the development of a basic understanding of the concepts and techniques important to analyzing business logistics problems. The course will also examine how the various logistics activities are related to each other and other functional areas within an organization. Finally, the course will introduce management and control techniques that are critical in the area of logistics. The course is designed for students who have had little or no previous coursework or professional experience in logistics.

LOGMGT-191 Credits: 3

Integrated Supply Chain Management Capstone

This course will provide the student with hands-on, cumulative application experience. Students will use the knowledge gained in the previous six courses within the Supply Chain Management associate degree program to develop operational strategies for business applications. Simulations and industry projects will be utilized in this capstone course. Prerequisite(s): Complete LOGMGT-164, LOGMGT-146, LOGMGT-144, LOGMGT-170, LOGMGT-190, LOGMGT-184 and LOGMGT-105.

MACHTL – Machine Tool (Department 420)

MACHTL-300 Credits: 3

Engine Lathe 1 (Turning)

This course offers basic instruction for turning operations on an engine lathe. Instruction is based on Machining Level 1 skill standards established by the National Institute for Metalworking Skills. Instruction includes using basic hand tools, layout, performing bench work, part inspection, safety and job organization. Detailed information will be given on lathe setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate an engine lathe and produce parts that require basic turning operations in a chuck as well as basic turning between centers.

MACHTL-301 Credits: 3

Engine Lathe 2 (Turning)

This course offers more advanced instruction for performing chucking operations on an engine lathe. Instruction is based on Machining Level 1 skill standards established by the National Institute for Metalworking Skills. Safety, part inspection, shop and job organization, job planning, and proper turning procedures will be presented. The student will learn to set up and operate an engine lathe and produce parts that are more advanced. Instruction will also be provided for using basic hand tools, performing bench work and off hand grinding on a pedestal grinder. Prerequisite(s): Complete MACHTL-300.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

MACHTL-304 Credits: 1

Introduction to CNC Programming

Introduction to CNC Programming prepares the student to write basic programs for CNC turning and CNC vertical milling machines. Application of the Cartesian coordinates system is taught along with programming format. The CNC vertical milling center students will write basic programs using linear and rapid moves, circular interpolation, geometry offsets and a variety of canned cycles. CNC turning portion of the course will require the student to write programs that include linear and rapid moves, circular interpolation with tool nose radius compensation, canned cycles and threading cycles. Prerequisite(s): Completion of or currently enrolled in MACHTL-320 and MACHTL-322.

MACHTL-309 Credits: 3

Manual Vertical Milling Machine 1

This course offers basic instruction for machine operations on a manual vertical milling machine. Instruction is based on Machining Level 1 skill standards established by the National Institute for Metalworking Skills. Items of instruction will include using basic hand tools, part layout, part inspection, bench work, safety and job organization. Detailed information will be given on milling machine setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate a manual vertical milling machine, producing square parts with drilled and tapped holes. Students will also learn how to set up and operate a vertical band saw and a cut-off saw. Additionally, students will perform off hand grinding on a pedestal grinder.

MACHTL-310 Credits: 3

Manual Vertical Milling Machine 2

This course offers more advanced instruction for machining operations on a manual vertical milling machine. Instruction is based on Machining Level 1 skill standards established by the National Institute for Metalworking skills. Safety, part inspection, shop and job organization, job planning, and proper machining procedures will be presented. Detailed information will be given on milling machine setup and operation to produce parts requiring slots, steps, bored and reamed holes. In addition to working on the manual vertical milling machine, the student will also learn how to set up and perform multiple operations on a drill press. Prerequisite(s): Complete MACHTL-309.

MACHTL-320 Credits: 4

Introduction to CNC Turning Centers

Students are introduced to basic CNC turning setup and operation. The course begins with the student loading and running existing programs. After becoming familiar with the controls and the setup process, the student begins to edit existing programs. By the end of the course, the student produces parts to print specifications from programs developed on their own. Prerequisite(s): Complete MACHTL-301.

MACHTL-322 Credits: 4

Introduction to CNC Vertical Machining Centers

Students are introduced to basic CNC milling machine setup and operation. The course begins with the student loading and running existing programs. After becoming familiar with the controls and the setup process, the student begins to edit existing programs. By the end of the course, the student produces parts to print specifications from programs developed on their own. Prerequisite(s): Complete MACHTL-310.

MACHTL-325 Credits: 4

Surface Grinding

This course is designed to teach the student the basics of surface grinding on a manual surface grinder. General maintenance of the machine will be covered along with wheel mounting, chuck preparation and work holding. The student will learn a variety of methods for squaring blocks. Slot grinding and angular grinding will also be covered.

MACHTL-346 Credits: 2

Machine Shop for Related Trades

Instruction in this course is based upon selected operations performed on the bench, drill press, engine lathe, milling machine and pedestal grinder.

MACHTL-347 Credits: 3

Single Spindle Automatic Screw Machine 1

This course offers instruction on the basic operations on an automatic screw machine. Instruction is based on Machining Level 2 skill standards established by the National Institute for Metalworking Skills (NIMS). Items of instruction will include using basic tools, tool sharpening, machine layout, part inspection, safety and job organization. Detailed information will be given on the screw machine setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate an automatic screw machine and produce parts that require basic operations.

MACHTL-348 Credits: 3

Single Spindle Automatic Screw Machine 2

This course offers more advanced instruction on the operations on an automatic screw machine. Instruction is based on Machining Level 2 skill standards established by the National Institute for Metalworking Skills (NIMS). Instruction will reinforce tool grinding, part inspection, safety and job organization. Detailed information will be given on the setup of screw machine tooling used for box milling, knurling internal and external threading, and operational guidelines. Upon completion of the course, the student will be able to set up and operate an automatic screw machine and produce parts that require more operations. Prerequisite(s): Complete MACHTL-347.

MACHTL-360 Credits: 1

Metrology

Students are introduced to inspection terminology, measuring instruments, instrument handling and measuring techniques. Along with hands-on use of each measuring instrument, the course provides the student with criteria for proper instrument selection based on part print requirements.

MACHTL-361 Credits: 3

Multiple Spindle Automatic Screw Machine 1

This course offers instruction on the basic operations on a multiple spindle automatic screw machine. Instruction is based on Machining Level 2 skill standards established by the National Institute for Metalworking Skills (NIMS). Instruction will include using basic tools, tool sharpening, machine layout, part inspection, safety and job organization. Detailed information will be given on the basic screw machine setup, controls, tooling, work holding, and general operational guidelines. Upon completion of the course, the student will be able to set up and operate a multiple spindle automatic screw machine and produce parts that require basic operations. Prerequisite(s): Complete MACHTL-348.

MACHTL-362 Credits: 3

Multiple Spindle Automatic Screw Machine 2

Instruction is expanded to more operations on a multiple spindle automatic screw machine. Instruction will reinforce tool grinding, part inspection, safety and job organization. Detailed information will be given on the multiple spindle screw machine tooling used for turning, reaming and recessing. The student will be introduced to the steps for calculating a layout for the machine. Upon completion of the course, the student will be able to set up and operate a multiple spindle automatic screw machine and produce parts that require advance operations. Prerequisite(s): Complete MACHTL-361.

MACHTL-367 Credits: 1

Machine Tool Technology

This course is designed to teach the student safety, terminology and theory for the basic machine tools found in the common machine shop. Machine types, components, operations, tooling, machining applications and work holding are discussed. The student will also learn about different materials, machine ability and cutting tool selection.

MACHTL-371 Credits: 4

CNC Swiss Turning Center 1

This course offers instruction on the basic operations and setup of a CNC automatic turning machine. Instruction will include basic setup, use of the CNC control, tools, machine layout, part inspection, safety and job organization. Detailed information will be given on the basic machine setup, controls, tooling, work holding and general operational guidelines. Upon completion of the course, the student will be able to set up and operate a CNC automatic turning machine and produce parts that require basic operations such as turning, drilling and reaming.

MACHTL – MATH

MACHTL-372 Credits: 4

CNC Swiss Turning Center 2

This course offers instruction on the more complex operations on a CNC automatic turning machine. Items of instruction will include editing of the CNC program, calculations for the CNC program and more complex machining operations on the CNC automatic turning machine. Upon completion of the course, the student will be able to edit a CNC program, set up and operate a CNC automatic turning machine and produce parts that require complex operations such as boring, grooving and canned cycles. Prerequisite(s): Complete MACHTL-371.

MACHTL-373 Credits: 4

CNC Swiss Turning Center 3

This course offers instruction on the more complex operations on a CNC automatic turning machine. Items of instruction will include creating a CNC program, calculations for the CNC program and more complex machining operations on the CNC automatic turning machine. Upon completion of the course, the student will be able to edit a CNC program, transfer the program, and set up and operate a CNC automatic turning machine using complex operations such as external and internal threading and tapping. Prerequisite(s): Complete MACHTL-372.

MACHTL-384 Credits: 1

Machine Trades Mathematics 1

This course provides students with the necessary mathematical foundation for problem-solving in the metalworking trades. A review of the basic principles of arithmetic and algebra is offered.

MACHTL-385 Credits: 1

Machine Trades Mathematics 2

This course presents an introduction to geometric methods applicable to the machine shop. It also provides students with an opportunity to analyze and solve a variety of practical machine trade application and problems. Prerequisite(s): Complete MACHTL-384.

MACHTL-386 Credits: 1

Machine Trades Mathematics 3

This course presents an introduction to the trigonometric solution of shop problems. The basic right triangle functions and oblique triangle laws of sine and cosine are used to solve problems. Prerequisite(s): Complete MACHTL-385.

MACHTL-387 Credits: 1

Machine Trades Mathematics 4

The application of trigonometry in the solution of more complex shop problems is presented. Included are problems with tapers, sine bar, dovetails, correlate distances, hole locations, measurement of screw threads, and measurement using rods and balls. Prerequisite(s): Complete MACHTL-386.

MACHTL-391 Credits: 1

Quality Control

This course is a continuation of MACHTL-360 Metrology. The level of precision is increased

as more precise instruments and methods of inspection are taught. Gage blocks, the optical comparator, dial bore gages and the coordinate measuring machine (CMM) are just some of the advanced pieces of equipment that are introduced. The basic concept of Statistical Process Control (SPC) is also presented. Prerequisite(s): Complete MACHTL-360.

MASON – Bricklaying and Masonry (Department 408)

MASON-190 Credits: 1

Current Topics in Masonry

This course explores current topics and trends in the masonry and bricklaying fields. Students may participate in hands-on demonstration of new technology, site visits to manufacturers and suppliers to the trade, and other topics that provide the student a well-rounded view of the masonry and bricklaying trade and innovative construction methods.

MASON-300 Credits: 5

Fundamental Bricklaying

This course provides training in laying brick and blocks, with application to straight walls, corners and jambs. Students develop skills in the handling of bricklaying tools, spreading mortar, laying bricks and blocks to a line and striking joints. Prerequisite(s): Must be admitted to the Bricklaying program (30-408-2).

MASON-303 Credits: 5

Advanced Bricklaying

This course provides training in constructing walls with various brick bonds, brick sills, blocked walls and details of veneering. Emphasis is on developing masonry skills to accepted trade standards. Prerequisite(s): Completion of or currently enrolled in MASON-300. Must be admitted to the Bricklaying program (30-408-2).

MASON-308 Credits: 1

Job Safety and Layout

The proper use, care and maintenance of tools and equipment of the trowel trades are studied with specific emphasis on construction safety. Basic building layout is taught as it relates to masonry. Prerequisite(s): Must be admitted to the Bricklaying program (30-408-2).

MASON-356 Credits: 2

Methods 1 – Fundamentals

This is a basic technical course in the practice and methods of the masonry trade. Through analysis, demonstration and discussion, various operations used in the trade are studied. Prerequisite(s): Must be admitted to the Bricklaying program (30-408-2). Completion of or currently enrolled in MASON-300.

MATH (Department 804)

MATH-107 Credits: 3

College Mathematics

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry,

measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem-solving, critical thinking and logical reasoning, making connections, and using calculators. Prerequisite(s): Complete one of the following: MATGEN-109, ACT (17-19), high school GPA (2.30-2.59), Accuplacer (64 or higher), GED (155-164) or ALEKS PPL (14-24).

MATH-113 Credits: 3

College Technical Mathematics 1A (Applied Algebra)

Topics include: solving linear equations, graphing, percent, proportions, measurement systems, computational geometry, and right triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1. Prerequisite(s): Complete MATGEN-110 with a minimum grade of C or satisfactory math placement test scores.

MATH-114 Credits: 2

College Technical Mathematics 1B (Applied Geometry and Trigonometry)

This course is a continuation of College Technical Mathematics 1A. Topics include: performing operations on polynomials, solving quadratic and rational equations, formula rearrangement, solving systems of equations, and oblique triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1. Prerequisite(s): Complete MATH-113 with minimum grade of C.

MATH-115 Credits: 5

College Technical Mathematics 1

Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; computational geometry; right and oblique triangle trigonometry; and operations on polynomials. Emphasis will be on the application of skills to technical problems. This course is the equivalent of successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B. Prerequisite(s):

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

Complete MATGEN-110, MATH-107, MATH-134 or MATH-135 with minimum grade of C or satisfactory MATC placement test score.

MATH-116 Credits: 4

College Technical Mathematics 2

Topics include vectors, trigonometric functions and their graphs, identities, exponential and logarithmic functions and equations, radical equations, equations with rational exponents; dimension of a circle, velocity, sine and cosine graphs, complex numbers in polar and rectangular form, trigonometric equations, conic sections, and analysis of statistical data. Emphasis will be on the application of skills to technical problems. Prerequisite(s): Complete MATH-114 or MATH-115 with minimum grade of C.

MATH-123 Credits: 3

Math With Business Applications

This course integrates algebraic concepts, proportions, percents, simple interest, compound interest, annuities and basic statistics with business/consumer scenarios. It also applies math concepts to the purchasing/buying and selling processes. Prerequisite(s): Complete MATGEN-109 with minimum grade of C or satisfactory MATC placement test score.

MATH-134 Credits: 3

Mathematical Reasoning

All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental and health issues that require quantitative reasoning skills. An activity-based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning and problem-solving using linear, exponential and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course may be used as the first of a two-part sequence that ends with Quantitative Reasoning as the capstone general education math requirement.

MATH-135 Credits: 3

Quantitative Reasoning

This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include construction and interpretation of graphs, descriptive statistics, geometry and spatial visualizations, math of finance, functions and modeling, probability, and logic. Appropriate use of units and dimensions, estimates, mathematical notation, and available technology will be emphasized throughout the course. Prerequisite(s): Complete MATH-134 or ACT Math sub-score of 18 or higher.

MATH-189 Credits: 3

Introductory Statistics

Students taking Introductory Statistics display data with graphs, describe distributions with numbers, perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters and test hypotheses. They draw inferences about relationships including ANOVA.

MATH-197 Credits: 5

College Algebra and Trigonometry With Applications

This course covers skills needed for success in calculus and many application areas at the baccalaureate level. Algebra topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities, relations and functions, systems of equations and inequalities, graphing, and conic sections. Trigonometry topics include the unit circle, trigonometric functions, graphs, identities, equations, inverse functions, solutions of triangles, complex numbers, polar coordinates, and vectors. Prerequisite(s): Complete MATH-116 or MATH-200 with a minimum grade of B or satisfactory MATC placement test score.

MATH-200 Credits: 4

Intermediate Algebra

Students study the construction and resulting properties of the real number system. Students simplify and factor algebraic expressions using fundamental laws and order of operations; solve first and second degree equations and inequalities in one variable, systems of equations and exponential and logarithmic equations, graph first degree and second degree equations and inequalities in two variables; inverse functions and solve equations involving rational expressions, fractional exponents and radicals. Students will learn the basic definitions of relations and functions and perform operations on functions. Prerequisite(s): Complete MATH-107, MATH-134 or MATH-135 with minimum grade of B.

MATH-201 Credits: 4

College Algebra

Students study properties of the real and complex number system; quadratic, polynomial, rational, exponential and logarithmic functions; equations and inequalities; combinatorics; the binomial theorem, the use of matrices and determinants in solving systems of equations, systems of inequalities, nonlinear systems, sequences, series and probability. Course includes use of a graphing calculator. Prerequisite(s): Complete MATH-200 with minimum grade of C or satisfactory MATC placement test score.

MATH-202 Credits: 3

Trigonometry

Topics include circular functions, graphing of trigonometric functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles, complex numbers, DeMoivre's Theorem, polar coordinates, and vectors. Learning involves extensive use of a graphing calculator. Prerequisite(s): Complete MATH-201 with minimum grade of C.

MATH-211 Credits: 4

Survey in Calculus and Analytic Geometry

A one-semester survey with applications to business administration, economics, and non-physical sciences. Topics include coordinate systems, equations of curves, limits,

differentiation, integration, and applications. May not be used as a prerequisite for MATH-232. Prerequisite(s): MATH-200.

MATH-230 Credits: 5

College Algebra and Trigonometry

This course prepares students for calculus. Topics include real and complex number systems, equations, inequalities, functions (linear, polynomial, rational, radical, exponential, logarithmic and trigonometric) and their graphs, systems of equations and inequalities (linear and nonlinear), conic sections, theory of equations, matrix methods of solution of linear equations, analytic trigonometry and applications of trigonometry. Learning involves extensive use of a graphing calculator. Prerequisite(s): Complete MATH-116 or MATH-200 with minimum grade of B, or satisfactory MATC placement test score.

MATH-231 Credits: 5

Analytic Geometry and Calculus 1

Limit topics include continuity, trig functions, logarithms, infinite limits and limits at infinity. Derivative topics include the chain rule, implicit differentiation, related rates, approximations, higher order derivatives, extremum and other applications of the derivative. Integration topics include sums, antiderivatives, the Fundamental Theorem of Calculus, areas and the definite integral, and integration by substitution. Differential equations topics include growth and decay, and basic separation of variables. The course includes appropriate mathematical notation, trigonometric function and transcendental functions with optional coverage of hyperbolic functions. Prerequisite(s): MATH-202 or MATH-230 with minimum grade of C or four years of high school math (including two years of algebra, one year of geometry and one semester of trigonometry) with minimum grade of B, or a satisfactory MATC placement test score.

MATH-232 Credits: 5

Analytic Geometry and Calculus 2

This course is a continuation of MATH-231. Topics include integration applications and techniques, improper integrals, indeterminate forms, infinite series, Taylor polynomials, conics, parametric equations, and polar equations. Use of a graphing calculator is required. Prerequisite(s): Complete MATH-231 with minimum grade of C.

MATH-233 Credits: 5

Analytic Geometry and Calculus 3

A continuation of MATH-232. Topics include vectors, geometry of space, vector valued functions, partial derivatives, multiple integrals and vector analysis. Extensive use of the graphing calculator is required. Prerequisite(s): Complete MATH-232 with minimum grade of C.

MATH-234 Credits: 4

Differential Equations/Linear Algebra

Topics include elementary differential equations, vendors, matrices, linear transformations, quadratic forms, Eigen values and applications. Extensive use of the graphing calculator is required. Prerequisite(s): Complete MATH-232 or MATH-233.

MATH – MEDAST

MATH-250 Credits: 3

Quantitative Reasoning

This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include: construction and interpretation of graphs, descriptive statistics, geometry and spatial visualizations, math of finance, functions and modeling, probability, and logic. Appropriate use of units and dimensions, estimates, mathematical notation, and available technology will be emphasized throughout the course. Prerequisite(s): Complete MATH 134 or ACT Math sub-score of 18 or higher.

MATH-260 Credits: 3

Basic Statistics

Studies appropriate statistical techniques for the systematic collection, presentation, analysis and interpretation of data. Studies statistical inference including sampling techniques, confidence intervals, type I and II errors, hypothesis testing, and results interpretation. Also includes descriptive statistics, basic probability theory, the Central Limit Theorem, probability distributions, linear regression, correlation and sample sizes. May require use of a graphing calculator or computer software. Lecture. Prerequisite(s): Complete MATH 200 with minimum grade of C, or satisfactory MATC placement test score.

MATH-275 Credits: 3

Math Exploration for Elementary Teachers 1

This course is intended for students enrolled in the Teacher Education Track (TET). Topics include theory of arithmetic of whole numbers, fractions and decimals. Also includes an introduction to algebra, estimation and problem-solving strategies. Prerequisite(s): Complete MATH-134.

MATH-276 Credits: 3

Math Explorations for Elementary Teachers 2

This continuation of MATH-275 covers geometry, statistics and probability. Prerequisite(s): Complete MATH-275 with minimum grade of C.

MATH-304 Credits: 1

Math Principles 1

Topics include a review of operations with numbers, fractions, decimals, calculator skills, formulas, percents and measurement conversions. Applications are related to technical diploma programs.

MATH-308 Credits: 2

Math for Industrial Applications 1

Concepts in basic algebra along with principles of plane geometry are studied. Emphasis is placed on calculating dimensions and angles of geometric figures related to industrial occupations.

MATRLS – Material Technology (Department 613)

MATRLS-102 Credits: 3

Material Testing

This lab/lecture course defines properties of engineering materials and then performs tests to measure these properties. ASTM procedures are examined and applied to many of the tests. Tests performed include hardness, tensile, impact, shear, compression, creep and bend testing. The course also covers failure modes such as fatigue and corrosion.

MATRLS-105 Credits: 2

Statistical Process Control

This lecture course teaches the basic concepts of quality control and statistical process control (SPC). Histograms, normal distributions, control charts (including \bar{x} and \bar{r} , moving range, p and np), and process capability are covered. These tools are applied to common applications in manufacturing and service industries.

MATRLS-108 Credits: 2

Principles of Metallography

This lab/lecture course studies the microstructures of common ferrous alloys (steels and cast irons) and their relationship to chemical composition, thermal cycles and mechanical properties. Phase diagrams are used to understand microstructures. Lab methods covered include sample preparation, microscopic and macroscopic examination, and photography. Prerequisite(s): Complete MATRLS-151.

MATRLS-110 Credits: 2

Fundamentals of Heat Treatment of Metals

This lab/lecture course studies the microstructure and property changes that occur during heat treatment of steel and cast iron, and relates these changes to the iron-carbon phase diagram. Treatments performed include hardening, tempering, normalizing, annealing and surface hardening. Lab work also includes hardness testing and some metallography.

MATRLS-151 Credits: 3

Metallurgy and Material Science

This lecture/demonstration course studies engineering materials (metals, plastics, ceramics and composites). Topics include refining and recycling of metals, classification and uses of steels, cast irons, nonferrous alloys, plastics, material properties, phase diagrams, heat treatment, corrosion and solidification. Atomic structure and nanotechnology are discussed.

MCDESG – Mechanical Design Technology (Department 606)

MCDESG-102 Credits: 3

Technical Drafting 1

This course is designed to provide the principles of drafting as well as an introduction to computer-aided drafting. Geometric constructions, sketching, orthographic projection, section views, dimensions (without tolerances) and primary auxiliary views are covered in this course. Prerequisite(s): Completion of or currently enrolled in CIVIL-102.

MCDESG-104 Credits: 3

Technical Drafting 2 With CAD

This course uses 2D and 3D CAD to introduce thread terminology, tolerances and fits, secondary auxiliary views, structural steel, and weldments. The relationship between parts is explored through assemblies created from downloaded components and student created models. Prerequisite(s): Complete MCDESG-102 and CIVIL-105. Completion of or currently enrolled in MCDESG-114.

MCDESG-106 Credits: 3

Advanced Engineering Graphics

This course focuses on advanced engineering graphics concepts utilizing SolidWorks instruction and includes advanced detailing of parts and assemblies bill of materials, parametric equations, tables and spreadsheets. This course will emphasize GD&T in the relationship between parts and fits calculations between mating parts such as gears, bushings, keys, retaining rings and fasteners. Prerequisite(s): Complete MCDESG-104, MCDESG-114 and CIVIL-105.

MCDESG-112 Credits: 3

Tool Design

This course is designed to give the Mechanical Design student knowledge in the design of simple jigs and fixtures, gauges and dies, using two- and three-dimensional design. Prerequisite(s): Complete MCDESG-106 and MCDESG-114.

MCDESG-114 Credits: 2

SolidWorks 1

This course introduces parametric solid modeling using SolidWorks software. Students focus on part modeling and assembly skills with an emphasis on design. Detail drawing with dimensioning and rapid prototyping techniques are also introduced.

MCDESG-116 Credits: 3

Design Elements

This course instructs students on the selection of machine elements (components) and their strength analysis. These elements include belts, chains, spur gears, keys, couplings, seals, bearings, clutches, brakes, electric motors and fasteners. Strength of materials concepts and fits are applied to the shafts that carry these elements. Prerequisite(s): Complete MCDESG-106, MCDESG-130 and CIVIL-105.

MCDESG-118 Credits: 3

Kinematics

This course covers the displacement, velocity and acceleration of four bar linkages, slider-cranks, crank-shapers and compound mechanisms using graphical and analytical methods. Also covered are cam displacement diagrams, profiles, gear trains and epicycles. Prerequisite(s): Complete MCDESG-104 and CIVIL-105 and MATH-116 or MATH-202. Completion of or currently enrolled in MCDESG-106.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

MCDESG-120 Credits: 1

Basic AutoCAD

Students are introduced to the use of AutoCAD software. The course is designed to be an introductory course enabling students to learn and apply computer-aided drafting (CAD) concepts relative to the preparation of construction drawings.

MCDESG-124 Credits: 2

SolidWorks 2

This course introduces advanced solid modeling techniques using SolidWorks software with an emphasis on mechanical design. Topics include advanced modeling techniques in sweeps, drafts, blends, shells, and surfaces, advanced assembly techniques, sheet metal parts, and weldments. Prerequisite(s): Complete MCDESG-114.

MCDESG-125 Credits: 3

Design Problems

This is the capstone course for the Mechanical Design Technology associate degree. Students take the knowledge and skills acquired in other courses (Drafting, Statics, Strength of Materials, Machine Elements, Mechanisms) and apply them to a design project. Students select their own project and define the scope, the path of the completion of the projects, perform necessary computations and complete all working drawings. Prerequisite(s): Complete MCDESG-130, MCDESG-106 and MCDESG-114. Completion of or currently enrolled in MCDESG-116.

MCDESG-130 Credits: 3

Strength of Materials

Students analyze internal stresses on linear members. The course focuses on axial, direct shear, torsional shear and bending stresses. These stresses are also combined using Mohr's circle. Prerequisite(s): Complete MCDESG-160.

MCDESG-133 Credits: 2

Inventor 1

This course introduces parametric solid modeling using Inventor software. Course is focused on modeling skills for creating parts, assemblies detail drawings. Rapid prototyping techniques are also introduced.

MCDESG-134 Credits: 2

Inventor 2

This course introduces advanced solid modeling techniques using Inventor software with a focus on design. Topics include advanced modeling techniques in sweeps, drafts, blends, shells and surfaces; advanced assembly techniques; sheet metal parts; and weldments. Prerequisite(s): Complete MCDESG-133.

MCDESG-135 Credits: 2

PTC Creo (Pro/E) 1

This course introduces parametric solid modeling using PTC Creo (Pro/E). Students are introduced to modeling skills for creating parts, assemblies, detailed drawings and rapid prototyping techniques.

MCDESG-145 Credits: 2

PTC Creo (Pro/E) 2

This course introduces advanced solid modeling techniques using PTC Creo (Pro/E) software with a focus on design. Topics include advanced modeling techniques in sweeps, drafts, blends, shells and surfaces; advanced assembly techniques; sheet metal parts; and weldments. Prerequisite(s): Complete MCDESG-135.

MCDESG-160 Credits: 3

Statics

Statics is the study of forces on and in structures that are at rest. Forces, vectors, resultants, moments, couples, equilibrium, free-body diagrams, friction, centroids, and centers of gravity, and shear and moment diagrams are covered. Prerequisite(s): Completion of or currently enrolled in MATH-116 or MATH-202.

MCDESG-162 Credits: 2

Engineering Materials

This course emphasizes engineering materials and processes used in manufacturing. Fundamentals include the properties and structure of materials for manufactured goods, such as ferrous and nonferrous metals and alloys, plastics, composites and ceramics, and the selection of materials for various functions. Casting and form casting processes, mold casting, powder metallurgy, and metal and nonmetal fabrication processes are included.

MCDESG-163 Credits: 2

Machining Processes

This course introduces machining processes used in manufacturing such as turning, milling, grinding, CNC, water jet cutting, EDM, punch press, welding, drilling, reaming and tapping. The course emphasizes best practices in mechanical design and design for manufacturability. Labs are integral to the course and expose the student to the various manufacturing processes and practices.

MDRAFT – Mechanical and Computer Drafting (Department 421)

MDRAFT-320 Credits: 1

Coordinate Blueprint Reading

Instruction is given in the interpretation of CNC coordinate piece part drawings. Students translate standard engineering drawings into coordinate drawings used in the programming of CNC machine tools. Prerequisite(s): Complete MDRAFT-386.

MDRAFT-385 Credits: 1

Machine Blueprint Reading 1

This course covers the basic principles essential for visualization and training in the interpretation of blueprints and freehand sketches of simpler machine parts. Emphasis is placed upon orthographic projection principles and pictorial drawing.

MDRAFT-386 Credits: 1

Machine Blueprint Reading 2

Instruction is offered in the interpretation of blueprints that show job procedure methods and their relation to drafting. Attention is given to representations of common machine processes, special forms of dimensioning, sections and other advanced drafting and design principles. Prerequisite(s): Complete MDRAFT-385.

MEDAST – Medical Assistant (Department 509)

MEDAST-301 Credits: 2

Medical Assistant Administrative Procedures

This course introduces students to office management and business administration in the medical office. The student learns to schedule appointments, perform filing, record keeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies. Students apply introductory medical coding skills and managed care terminology. Prerequisite(s): Must be admitted to Medical Assistant program (31-509-1).

MEDAST-302 Credits: 3

Human Body in Health and Disease

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases. Prerequisite(s): Complete HEALTH-101. Must be admitted to the Medical Assistant program (31-509-1).

MEDAST-303 Credits: 2

Medical Assistant Lab Procedures 1

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform Clinical Laboratory Improvement Amendment (CLIA) waived routine laboratory procedures commonly performed in the ambulatory care setting. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing, microbiology, and urinalysis testing. Prerequisite(s): Must be admitted to the Medical Assistant program (31-509-1).

MEDAST-304 Credits: 4

Medical Assistant Clinical Procedures 1

Introduces medical assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills including screening, vital signs, patient history, minor surgery and patient preparation for routine and specialty exams in the ambulatory care setting. Learner explores communication principles and psychology theories related to patient care. Prerequisite(s): Must be admitted to the Medical Assistant program (31-509-1). Completion of or currently enrolled in MEDAST-302 and MEDAST-303.

MEDAST – MKTG

MEDAST-305 Credits: 2

Medical Assistant Lab Procedures 2

Prepares students to perform phlebotomy and Clinical Laboratory Improvement Amendment (CLIA) waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting. Prerequisite(s): Complete MEDAST-303 or CLABT-303. Must be admitted to the Medical Assistant program (31-509-1).

MEDAST-306 Credits: 3

Medical Assistant Clinical Procedures 2

Prepares medical assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, performing an electrocardiogram, assisting with respiratory testing, coaching patients and assisting with emergency situations in an ambulatory care setting. Students learn preventive care and principles of nutrition. Prerequisite(s): Complete MEDAST-304. Must be admitted to the Medical Assistant program (31-509-1).

MEDAST-307 Credits: 2

Medical Office Insurance and Finance

Introduces medical assistant students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines and complete insurance claim forms. Students use medical coding and managed care terminology to perform insurance-related duties. Prerequisite(s): Complete MEDAST-302. Must be admitted to the Medical Assistant program (31-509-1).

MEDAST-308 Credits: 2

Pharmacy for Allied Health

Introduces students to medication classification, basic pharmacology principles and supplements. Students apply basic pharmacodynamics to identify common medications and calculate dosages in preparation for medication administration. Prerequisite(s): Complete MEDAST-302. Must be admitted to the Medical Assistant program (31-509-1).

MEDAST-309 Credits: 2

Medical Law, Ethics and Professionalism

Prepares students to display professionalism and perform within ethical and legal boundaries in the healthcare setting. Students maintain confidentiality, examine legal aspects of ambulatory healthcare, perform quality improvement procedures, examine legal and bioethical issues, and demonstrate awareness of diversity. Prerequisite(s): Must be admitted to the Medical Assistant program (31-509-1).

MEDAST-310 Credits: 3

Medical Assistant Practicum

Requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in actual ambulatory healthcare settings. Learners perform medical assistant administrative, clinical and laboratory duties under the supervision of trained mentors

to effectively transition to the role of a medical assistant. This is a supervised, unpaid, clinical experience. MAERB required practicum - 160 minimum hours (MAERB minimum) up to 216 hours. Prerequisite(s): Complete MEDAST-301, MEDAST-302, MEDAST-303, MEDAST-304 and MEDAST-308. Must be admitted to the Medical Assistant program (31-509-1). Completion of or currently enrolled in MEDAST-305, MEDAST-306 and MEDAST-307.

MEDINT – Medical Interpreter (Department 538)

MEDINT-101 Credits: 3

Cultural Awareness

Recognize, respect and accept differences in customs, beliefs and behaviors in others. Learners will examine people's specific differences and learn to respond to a variety of cultures.

MEDINT-102 Credits: 3

Spanish Regionalisms/English Variants

Students will explore words and expressions utilized in different countries as they relate to health, work and everyday living. Cultural ethnic background, historical and immigration factors are also examined. Prerequisite(s): Dual Language Proficiency (English/Spanish)

MEDINT-103 Credits: 3

Intro to Medical Interpretation

This course introduces the professions of translation and interpretation. The different types of translation and interpretation are explored. Actual translations will be done in class, as well as interpretation exercises. The language industry will be discussed, which includes freelance translation and interpretation. Comprehension assessment done during the class will determine the learner's competency in both working languages. Prerequisite(s): Must be admitted to the Medical Interpreter program (30-538-1).

MEDINT-104 Credits: 3

Applied Med Interpretation 1

Develop interpreting skills needed within the healthcare environment. Learning centers around general information on healthcare and the healthcare system, functions within hospital departments, healthcare procedures and the terms needed for interaction in the healthcare environment. Culture in interpreting and communication skills for advocacy are analyzed.

MEDINT-106 Credits: 3

Introduction to Medical Translation

Fundamental overview of the intricacies of converting texts from one language to another within the context of healthcare services. Course work includes analysis and comprehension of English or Spanish source texts and the correct construction of writing in target languages. Explore selected materials, including patient information, medical journal articles and

medico-legal documents and use sources available to medical translators. Prerequisite(s): Dual Language Proficiency (English/Spanish)

MEDINT-107 Credits: 5

Bilingual Medical Terminology

This course delineates a detailed analysis and application of medical terms in English and Spanish. It offers the competencies required to meet or exceed the demands of medical interpreters and bilingual personnel within our nation's healthcare systems as they work with patients of limited English proficiency. Prerequisite(s): Dual Language Proficiency (English/Spanish)

MEDINT-108 Credits: 3

Ethics and Standards for Medical Interpreters

This course delineates a critical overview of the applied ethics, risk management and legal practices found at local and national levels within healthcare organizations. It delineates the scope of service that must be observed by medical interpreters and bilingual personnel while working with patients of limited English proficiency. Prerequisite(s): Dual Language Proficiency (English/Spanish).

MEDINT-110 Credits: 3

Applied Medical Interpretation 2

Continue to develop accurate interpreting skills through practice and analysis. Simultaneous interpretation, managing communication, documentation, legal boundaries and interpreting in health care specialty areas are emphasized.

MEDINT-111 Credits: 3

Applied Medical Interpretation 3

Through a variety of experiences such as job shadowing, role playing and practice, this course provides students with entry-level experiences in interpreting skills. Expands professional insights as students share and analyze fieldwork experiences. Prerequisite(s): Completion of or currently enrolled in MEDINT-110.

MEDINT-112 Credits: 3

Dual Language Enhancement for Healthcare Providers

This course highlights fundamental skills of written and oral language for healthcare professionals. Coursework includes composition, public speech and reading comprehension in the English and Spanish language. Prerequisite(s): Must be admitted to the Medical Interpreter program (31-538-1).

MEET – Meeting and Event Management (Department 109)

MEET-116 Credits: 2

Fundamentals of Green Meetings

This course provides students with a solid foundation of what is a green meeting, commonly used terminology, and how to execute a socially responsible and environmentally

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responsible meeting or event. Through a green lens, students will explore core strategies and principles in planning a green meeting. Further focus includes green tools and resources available to plan a green meeting.

MEET-151 Credits: 3

Intro to Hospitality/ Tourism

This course introduces the various components of the travel services industry including basic terminologies and tourism vocabulary. The course provides a general orientation to the program and a survey of travel career opportunities. Students learn to integrate current knowledge with ongoing events and trends of the travel and tourism industry.

MEET-178 Credits: 3

Meeting and Convention Planning

This course introduces students to the meetings industry, including promotional activities, negotiating for meeting services, convention market salesmanship, customer service and convention servicing. Course content includes a study of the planning, marketing, execution and follow-up of meetings, conferences, conventions and package promotions. Facilities and event planning, as well as convention methods and techniques, are explored in-depth. Prerequisite(s): Complete MEET-180 and MEET-181.

MEET-180 Credits: 3

Registration and Housing Logistics

This course enables the students to identify and develop tools that allow attendees to have a seamless meeting experience. One critical tool the students will learn in this course is to design a functional registration process. Students will also develop a housing process by creating rooming lists, coordinating the housing logistics and managing sleeping guest rooms from blocks. Prerequisite(s): Complete MEET-181.

MEET-181 Credits: 3

Exposition/Special Event Management

This course focuses on the planning of special events of all types including expositions, meetings, conventions, trade shows, retail events, festivals and nonprofit events in the hospitality and event management industry. Emphasis is placed on the methodology of event planning including theme setting, building the target sponsorship, contracts, negotiations, site selections, planning event specifications and working with budgets. Prerequisite(s): Complete MEET-151.

MEET-184 Credits: 3

Risk Management and Crisis Planning

This course focuses on the art and science of negotiations, crisis planning and risk management, and contract and legal issues in the meetings industry. Students learn to identify issues that are negotiable, the steps in the negotiation process and commonly used negotiation techniques. The course also focuses on basic contract provisions and key clauses of a facility contract as well as the unique elements and differences of hotel and convention center contracts. Prerequisite(s): Complete MEET-180.

MFGMNT – Manufacturing Maintenance (Department 462)

MFGMNT-332 Credits: 2

Rigging and Lifting

This system teaches how to safely move loads of different shapes and sizes using a variety of methods, as well as additional types of rigging skills including equipment movement, wire mesh slings, synthetic slings, knots, load turning and cranes. This course includes additional hoists, slings, loads, student learning materials for theory and lab. This course also covers the operation, function, and maintenance of wire mesh slings and fiber ropes, load movement, and rigging knots. Proper rigging techniques are vital for efficient movement of loads and worker safety.

MFGMNT-352 Credits: 2

Mechanical Drives 1

Mechanical Drives introduces mechanical systems and develops fundamental knowledge of mechanical systems and practices. Covers basic safety, installation, key fasteners, power transmission systems, V-belt drives, chain drives, spur gear drives and multiple shaft drives. Topics covered include learning how to select, install, adjust, troubleshoot and repair a range of mechanical systems, which are commonly found in both automated and manual machines used in every industry around the world.

MFGMNT-353 Credits: 2

Mechanical Drives 2

Mechanical Drives 2 covers heavy-duty V-belt drives including conventional, multiple, wedge, and variable speed V-belt drives. This course describes V-belt selection and maintenance by covering V-belt size specification, component identification and troubleshooting. Learners will develop fundamental knowledge of synchronous belt drives, lubrication concepts, precision shaft alignment and coupling. Also covered is heavy-duty chain drives which describes silent chain drives, multiple strand systems, chain selection, chain lubrication, chain maintenance and troubleshooting. Prerequisite(s): Complete MFGMNT-352.

MFGMNT-359 Credits: 2

Mechanical Fabrication

Mechanical Fabrication grounds learners in the basic knowledge needed for assembly. Learners focus on the proper and safe application of hand tools. Mechanical fabrication builds knowledge in the many types of bolts, wrenches and other fittings commonly used in industry and how to properly apply them, including pneumatic fabrication fittings. Focuses on proper techniques for checking connections and testing fittings with an emphasis on safety. Proper tool use helps in many ways, including injury avoidance, fewer product quality issues and lower tool breakage costs.

MKTG – Marketing (Department 104)

MKTG-102 Credits: 3

Marketing Principles

Marketing Principles is the study of the organizational function and set of processes for creating, communicating and delivering value to customers and managing customer relationships in ways that benefit the organization, its stakeholders and society as a whole.

MKTG-104 Credits: 3

Selling Principles

Personal selling emphasizes building relationships with prospects and customers through partnering by using the consultative approach to selling. Primary attention is given to the principles and practices used by individuals who have achieved long-term success in personal selling. The entire selling process, selling strategies, practices and techniques will be covered.

MKTG-106 Credits: 3

Retail and Consumer Marketing

Course covers how consumers choose, use and dispose of products, services, experiences and ideas, better enabling marketers to define and communicate their brands' and products' value, craft effective marketing communications to increase the chance their brand or product will be perceived positively and purchased over competitors' products. Prerequisite(s): Complete MKTG-102.

MKTG-107 Credits: 3

Customer Experience

Course covers the skills needed to deliver an exceptional customer experience, build customer relationships, the use of technology to improve the customer experience, service strategies and service recovery with the ultimate goal of customer loyalty.

MKTG-118 Credits: 3

Social Media Marketing

This course covers marketing strategies on Facebook, Instagram, Twitter, Snapchat, Pinterest, LinkedIn, and YouTube. This is an application-based course and will teach students how to utilize each platform for social media marketing.

MKTG-125 Credits: 3

Advertising: Brands and Campaign

Examine advertising's role in the marketing landscape by exploring topics such as investigating how research influences decisions, creating a creative strategy, developing creative ideas and pieces, and selecting media channels.

MKTG-134 Credits: 3

IMC Management

Introduces students to the concepts of Integrated Marketing Communication. Emphasis is placed on branding, market segmentation, positioning, message strategy, promotion and the execution of marketing communications through appropriate channels

MKTG – MUSIC

MKTG-144 Credits: 3

Client Services

Examine the important role account managers play in order to deliver marketing communications solutions to clients. Learn the key skill sets, understand the critical responsibilities and explore the hands-on tools necessary to excel.

MKTG-165 Credits: 3

Digital Marketing

The use of digital marketing channels and online platforms are covered, including search engine optimization, digital marketing analytics, paid search, email marketing and social media campaigns. Course includes a comprehensive simulation.

MKTG-173 Credits: 3

Marketing Research / Analytics

Examine the importance of data-driven decisions to marketing success by exploring topics such as data collection and analysis, tracking critical metrics, and the sharing and reporting of key insights.

MKTG-175 Credits: 1

Marketing Internship

This course is a cooperative training program that allows students to observe and apply in a practical manner the principles and techniques of marketing studied in Marketing Management or Fashion/Retail. Prerequisite(s): Complete MKTG-151 or INTRN-796 with minimum grade of C.

MKTG-198 Credits: 3

Visual Media Marketing

This course covers visual media marketing whose principles integrate graphic design, web design, digital imaging and business marketing strategies. Students will use a variety of industry-standard design tools in this project based course.

MLABT – Medical Laboratory Technology (Department 513)

MLABT-161 Credits: 1

Computer Applications for the Medical Laboratory

In this course, students learn basic computer skills used in the clinical laboratory. Students use the internet and database software to become familiar with clinical laboratory computer functions. Prerequisite(s): Must be admitted to the Phlebotomy program (30-513-1). Completion of or currently enrolled in HEALTH-107, CLABT-110 and CLABT-111.

MLABT-166 Credits: 3

Phlebotomy Clinical Experiences

This clinical course provides 120 hours of the practical application of principles and techniques of phlebotomy. Students observe and perform routine phlebotomy and processing tasks in affiliating phlebotomy facilities. Complete CLABT-111.

MTLGY – Metallurgy (Department 422)

MTLGY-301 Credits: 1

Basic Heat Treatment of Metals

This course is designed to provide information related to steel types, alloying elements and microstructure as they relate to the heat treatment of steel. Lab work includes heat treating (hardening, tempering, normalizing and annealing), hardness testing and tensile testing.

MTLGY-321 Credits: 1

Metallurgy 1

This course gives an introduction to metals commonly used to manufacture products. It describes the properties and applications of steels, cast irons, aluminum alloys and other common nonferrous metals. It covers the AISI/SAE specifications for steel and common nonferrous metals, including aluminum and copper alloys. Lab work includes hardness testing, tensile testing and common heat treatments used with steel.

MUSIC (Department 805)

MUSIC-101 Credits: 2

Music Business

This course is designed to develop insight into portions of the music-business world, including the recording industry, record labels, copyrights, performing, managers, producers, contracts, songwriting, music publishing, print publishing, promotion, business planning, career planning, website construction and much more.

MUSIC-103 Credits: 1

Major Instrument 1

Emphasis is placed on individualized instruction on one's major instrument with course emphasis to include reading, developing musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass or Percussion.

MUSIC-104 Credits: 1

Major Instrument 2

Individualized instruction at the intermediate level is given on the major instrument, with emphasis on reading, developing musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass or Percussion. Prerequisite(s): Complete MUSIC-103.

MUSIC-105 Credits: 1

Major Instrument 3

This is an early advanced-level course designed to develop specific performance skills in all styles of music with emphasis to include reading, musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass, Percussion, or Voice. Prerequisite(s): Complete MUSIC-104, MUSIC-178 or MUSIC-193.

MUSIC-106 Credits: 1

Major Instrument 4

This is an advanced-level course designed to develop specific performance skills in all styles of music with emphasis to include reading,

musicality and improvisation. Choice of sections: Guitar, Bass, Reeds, Brass, Percussion or Voice. Prerequisite(s): Complete MUSIC-105.

MUSIC-107 Credits: 1

Songwriting 1

This course is offered to songwriters of all levels. The ability to produce written charts or convey a finished song in an audio format is necessary to take this course. The art and craft of songwriting will be explored by examining the compositional tools that strengthen lyrics, melody, harmony and form. Students will learn how to convey their ideas and emotions in a coherent and effective manner using these tools and will also gain a perspective on the more abstract concept known as the creative muse. Songs from across the musical spectrum and throughout songwriting history will be used for analysis. All musical styles are welcome and students will write songs in the genre of their choosing. Prerequisite(s): Complete MUSIC-150.

MUSIC-108 Credits: 1

Film Scoring 1

Film Scoring 1 is a lecture/survey class covering four areas: the history, the production or process of film scoring, creating the score, and the business details of film scoring.

MUSIC-109 Credits: 1

Film Scoring 2

Film Scoring 2 is a lecture/lab class exploring the practicalities of composing music for the visual media including spotting, thematic branding, tempo mapping, developing the grand concept, functional scoring and business opportunities. Prerequisite(s): Complete MUSIC-108.

MUSIC-118 Credits: 3

Music Analysis

This class will focus on the basic elements of music: melody, harmony, texture, timbre, expression and form. Through analysis of all these elements, students will come to better understand and recognize the distinct features of music from various periods and styles of music of the Western culture from the 1500s to the present. The class will emphasize the understanding, recognition and appreciation of various musical styles, a better understanding of music of the past so as to better understand the music of the present and future, broadening one's basis of acceptance as to what constitutes music, maintain and developing an openness to new and different approaches and styles of music or ideas that are divergent from one's own, and becoming aware of environmental influences on music such as social, political and cultural forces. The class uses lecture, analysis, guided listening and presentation. Prerequisite(s): Complete MUSIC-150.

MUSIC-119 Credits: 1

Music Ensemble 4

A continuation of Combo 1 with the continued study and performance of improvisation, reading music notation, ear training, and reading chord charts and lead sheets. Performance is on the intermediate to advanced level. Prerequisite(s): MUSIC-141.

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<p>MUSIC-120 Credits: 1 Choir 2 Students develop vocal skills, learn basic note reading techniques and learn how to sing in harmony with others in a choral group that sings a variety of vocal styles such as gospel, jazz, classical and pop. Choir 2 is open to all MATC students and especially to anyone who would enjoy choral singing.</p>	<p>MUSIC-143 Credits: 1 Music Notation 1 Music Notation 1 introduces the learner to the basics of music manuscript. Students will notate basic rhythm, melody and harmony by hand. The learner will also be introduced to the fundamentals of Finale and Sibelius music notation software and learn about the techniques used in the industry of engraving notation. Students will study the form and texture of multiple genres of music.</p>	<p>MUSIC-153 Credits: 3 Composition 2 Students compose, orchestrate and record in various musical styles using computers, digital keyboards, sequencing and music notation software. Prerequisite(s): Complete MUSIC-152.</p>
<p>MUSIC-125 Credits: 1 Music Studio Teaching Methods This class will include the study of various teaching methods and learning styles and their application to studio one-on-one instruction for various instruments and voice, materials and techniques, performance practices and business aspects of studio management. The class includes lecture, demonstration/presentation and lesson observation. Prerequisite(s): Complete MUSIC-152.</p>	<p>MUSIC-144 Credits: 1 Music Notation 2 Music Notation 2 is an intermediate to advanced level course in which the learner will explore the Music Engraving software of Finale and Sibelius in great detail. An emphasis on music theory, form and analysis in many genres of music will accompany an advanced series of instruction and exploration of music manuscript.</p>	<p>MUSIC-158 Credits: 1 Orchestration 1 Students will learn the fundamentals of orchestration (arranging) for small ensembles from jazz combo to small chamber orchestra. Students will orchestrate original works and classic examples from the literature for live players or digital orchestra. Students will learn instrumental ranges, transpositions and characteristics for maximum effect. Prerequisite(s): Complete MUSIC-151.</p>
<p>MUSIC-126 Credits: 1 Percussion Ensemble This course is specifically geared to performing percussion music. It is designed to explore the music and techniques of playing the many styles and instruments of world and classical percussion. Areas of study will include, but not be limited to: Brazilian, African and Afro-Cuban music, as well as classic American compositions. The course will focus on reading, interpretation, improvisation, music theory, and technique. Learners will perform on many percussion instruments and become skilled at functioning in an ensemble. The Percussion Ensemble will be prepared to perform at MATC Concert Series alongside music ensembles.</p>	<p>MUSIC-147 Credits: 1 Songwriting 2 This course is a continuation of Songwriting 1. Students will hone the art and craft of songwriting and will develop a more sophisticated approach to writing lyrics, melody, harmony and form. The process of song arrangement will be discussed and emphasized in more detail in this second part of the course. The challenge of writing songs in various genres and for specific commercial purposes will be explored. Prerequisite(s): Complete MUSIC-107.</p>	<p>MUSIC-159 Credits: 1 Orchestration 2 A continuation of Orchestration 1, students will study and develop intermediate and advanced orchestration concepts through writing for larger ensembles from sextets to full orchestra. Students will apply skills to the orchestration of original works and classic literature, contemporary genres and film scores. Prerequisite(s): Complete MUSIC-158.</p>
<p>MUSIC-127 Credits: 1 Drum Lab Drum Lab is a course designed to meet the needs of the beginning percussionist as well as the student interested in an introduction to stick and hand drumming. Course focus is on music reading, rhythmic development, technique and improvisation. Students will obtain the basic knowledge of the instrument to prepare for Major Instrument Percussion and Percussion Ensemble class.</p>	<p>MUSIC-148 Credits: 2 Music Fundamentals 1 An introduction to the building blocks of music: reading, notation, keys, scales and chords.</p>	<p>MUSIC-162 Credits: 1 Music Ensemble 1 Students have the opportunity to learn the various styles of music and how to reproduce them. Participation in this class will give the student valuable practical experience in reading music notation, reading chord charts and lead sheets, improvisation, learning music in the confines of a musical ensemble, thus better equipping them to perform professionally.</p>
<p>MUSIC-141 Credits: 1 Music Ensemble 3 Students will perform in a musical group. Participants will continue to advance their musical performance skills. Emphasis is placed on reading music notation, reading chord charts and lead sheets, improvisation and ear training. Prerequisite(s): Complete MUSIC-163.</p>	<p>MUSIC-150 Credits: 4 Music Theory This introductory course presents fundamental music theory. The following topics are presented: the study of intervals; major and minor tonality; scale construction; diatonic triads; harmonic function; figured bass, four-voice chorale; voice leading and chord voicing; figured bass, chord inversion; tonal and structural organization in music; seventh chords and simple/compound meter. This class uses lecture, workbook exercises, sight singing and dictation.</p>	<p>MUSIC-163 Credits: 1 Music Ensemble 2 A continuation of Ensemble 1 with continued study and performance of reading music notation, reading chord charts, improvisation and learning music in the confines of a musical ensemble. Performance is on the intermediate to advanced level. Prerequisite(s): Complete MUSIC-162.</p>
<p>MUSIC-142 Credits: 2 Introduction to Composition Students will explore the art of the composer. This course takes the class through an in-depth examination of genres, styles, the composer's tools, arranging and orchestration considerations, and sources of inspiration.</p>	<p>MUSIC-151 Credits: 4 Music Theory 2 This course involves the application of knowledge acquired in Music Theory as it relates to harmony and harmonic progression. Our objective is to develop skills in fundamental to advanced harmonizing within the modern musical idioms. Prerequisite(s): Complete MUSIC-150.</p>	<p>MUSIC-167 Credits: 1 Improvisation 1 The objective of this course is to begin to develop abilities in jazz improvisation through the study of scale/chord relationships and jazz solo vocabulary. The course involves both the study of theoretical concepts as well as practice and performance on one's chosen instrument. Prerequisite(s): Complete MUSIC-151.</p>
	<p>MUSIC-152 Credits: 3 Composition 1 Students learn to write original compositions for commercial and artistic purposes (film, radio, concert, etc.). Compositional styles covered include classical, jazz, pop, Latin and serial composition, radio and television. Prerequisite(s): Complete MUSIC-151.</p>	<p>MUSIC-168 Credits: 1 Improvisation 2 A continuation of MUSIC-167, the intent of this course is to provide students with more advanced training in jazz improvisation through the study of scale/chord relationships and jazz solo vocabulary. The course involves both the study of theoretical concepts as well as practice and performance on one's chosen instrument. Prerequisite(s): Complete MUSIC-167.</p>

MUSIC – NRSAD

MUSIC-173 Credits: 1

Music Reading

This course is designed to provide the student with the ability to read standard music notation and play music on their primary instrument. Instruction begins with the fundamental tools and terminology of music notation. It moves through simple melodies in simple rhythms and meters and progresses to longer and more difficult melodies in more difficult rhythms and compound meters.

MUSIC-174 Credits: 2

Ear Training 1

This class will emphasize the ability to accurately recognize melodic, harmonic and rhythmic musical sounds. This will be done through sight singing, dictation and transcription, and incorporation of theory fundamentals. Prerequisite(s): Complete MUSIC-151.

MUSIC-177 Credits: 1

Piano Lab 1

A beginning piano class designed to develop skills in music reading and proper keyboard technique as well as the functional use of scales, chords, transposition and other elements of music theory. Taught in a group class setting on Roland digital pianos. Elementary to late elementary level.

MUSIC-178 Credits: 1

Piano Lab 2

A continuation of MUSIC-177, this class is designed to improve skills in music reading and proper keyboard technique as well as the functional use of scales, chords, transposition and other elements of music theory. Prerequisite(s): Complete MUSIC-177.

MUSIC-181 Credits: 1

Conducting

This course will develop basic conducting skills. It will explore and develop techniques associated with historically classical instrumental and vocal conducting as well as contemporary genres and conducting/leading a group while also playing in the group. Prerequisite(s): Complete MUSIC-151.

MUSIC-182 Credits: 3

Composition for Advertising

Is a class that applies music composition skills to the area of broadcast advertising music for radio and television commercials, in-house instructional videos, convention theme songs, and variations on a melodic theme for multi-commercial campaigns, all within the confines of the predetermined guidelines of the client's specific direction. The details of running a commercial production company will also be emphasized including establishing a client base, demo writing, producing a final production, keeping good books, fee structures and pitching skills. Prerequisite(s): MUSIC-151.

MUSIC-183 Credits: 3

Library Licensed Music

Library Licensed Music introduces the concepts and techniques of composing, mixing and

editing original pieces of music for the purposes of licensing for the world of radio, television and advertising. Prerequisite(s): Complete MUSIC-152.

MUSIC-184 Credits: 2

Ear Training 2

This course is a continuation of MUSIC-174 Ear Training. This class will emphasize the ability to accurately recognize melodic, harmonic and rhythmic musical sounds. This will be done through sight singing, dictation and transcription and incorporation of theory fundamentals. Prerequisite(s): Complete MUSIC-174.

MUSIC-185 Credits: 1

Bass Lab 1

Bass Lab is designed to meet the needs of the beginning bass guitar player. The course will acquaint the student with tuning, parts of the bass guitar and proper playing techniques. Course will also cover the basic skills of reading music in the bass clef. The student will perform simple music examples in class on their instrument.

MUSIC-187 Credits: 1

Guitar Lab 1

Group lessons instruction for beginners or guitarists who want to learn to read standard notation, including basic technique, music reading, chording, fundamentals of music theory, effective practice habits, lead sheets and tablature. Students must provide their own guitar.

MUSIC-188 Credits: 1

Guitar Lab 2

A continuation of MUSIC-187. Group lesson instruction to improve music reading skills, expand chord vocabulary, scales, understanding chord progressions, finger style guitar basics and bare chords. Students must provide their own guitar. Prerequisite(s): Complete MUSIC-187.

MUSIC-189 Credits: 1

Voice Lab 1

Students learn basic vocal techniques and improve their singing ability through solo singing.

MUSIC-190 Credits: 1

Choir 1

Students develop vocal skills, learn basic note reading techniques and learn how to sing in harmony with others in a choral group that sings a variety of vocal styles such as gospel, jazz, classical and pop. Choir 1 is open to all MATC students and especially to anyone who would enjoy choral singing.

MUSIC-191 Credits: 3

Performance Techniques 1

Students will develop their performance abilities on their particular instrument(s). Solos or ensembles will be formed from the class. Students will learn through lecture, coaching, interactive discussion, preparing selections for performance and performing music and non-music presentations. The class will emphasize learning to prepare adequately for successful performances, working successfully with other

musicians, developing ensembles, musical arranging, improving personal technical and musical abilities, proper performance etiquette, professional work ethic and attitude, and refining playing in various styles. Prerequisite(s): Complete MUSIC-163.

MUSIC-192 Credits: 3

Performance Techniques 2

A continuation of MUSIC-191. Prerequisite(s): Complete MUSIC-191.

MUSIC-193 Credits: 1

Voice Lab 2

Students continue to develop good vocal techniques through solo singing and develop skills in sight singing. Prerequisite(s): Complete MUSIC-189.

MUSIC-194 Credits: 1

Honors Ensemble

An advanced performance group created by audition or faculty appointment. This group serves as the flagship performance group representing the department and school in various venues, and as a recording group producing CDs in collaboration with music business and recording students. With guidance from the instructor, members of the class are responsible for choosing repertoire, arranging materials, rehearsing, memorizing and performing a minimum of three department concerts per semester. Prerequisite(s): Complete MUSIC-192.

MUSIC-205 Credits: 3

Music Appreciation

This course introduces music elements such as rhythm, melody, harmony, texture in vocal and instrumentals forms to analyze and appreciate music from the 1400s to present including historical musical periods as well as contemporary popular American genres. Composers studied include Pope Gregory, Bach, Mozart, Beethoven, Brahms, Debussy, Copland, Gershwin and Joplin. This course is lecture and guided listening with analysis and discussion. Students will be required to attend concerts, listen to music and write reports.

MUSIC-206 Credits: 3

History of Rock Music

This course provides students with a survey of popular American music of the 20th century, tracing the development, evolution and maturation of musical styles, techniques and compositions. Development of analytical listening skills is a course focus.

MUSIC-207 Credits: 3

Jazz History

This course will focus principally on America's indigenous music — jazz. Course will explore the development of this music over the last 150+ years to present. Course will explore musical, multicultural and historic perspectives, tracing the evolution of the music. Selective listening as well as analysis of rhythmic, melodic, harmonic and form structures will be a course focus. Open elective to all majors.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

MUSIC-210 Credits: 3

World Music Sound and Structure

An insightful introduction to major musical traditions of the world. This course will focus on musical sound and structure in the musical genre of sub-Saharan Africa, India, Japan, Latin America and Ireland.

NAILS – Nail Technician (Department 502)

NAILS-340 Credits: 4

Manicuring Theory

Students who wish to qualify to take the state manicurist license examination must take this course. Instruction focuses on theory relating to law, nail and skin disorders, manicuring, pedicuring, nail enhancements, e-file, safety, sanitation, anatomy, physiology and business management. This course includes some online assignments and tests in preparation for the online state board exam. Prerequisite(s): Must be admitted to the Nail Technician program (30-502-4).

NAILS-342 Credits: 4

Intro Manicuring Practicum

This course provides the theoretical and practical components related to manicuring, pedicuring, tip application, fabric wrap application, acrylic application, consultation, UV Gel applications, nail art and electric filing. Students observe and practice the practical applications on artificial nails, classmates and models. Students must complete NAILS-340 prior to taking NAILS-342 or students can take NAILS-340, NAILS-342 and NAILS-343 in conjunction or have equivalent coursework. This course includes some online assignments and tests in preparation for the online state board exam. NAILS-342 kit purchased from the MATC Bookstore at the start of the semester. Prerequisite(s): Completion of or currently enrolled in NAILS-340. Must be admitted to the Nail Technician program (30-502-4).

NAILS-343 Credits: 4

Advanced Manicuring Practicum

This course offers professional skill development in basic and artificial nail application in a salon-like setting. Students practice manicuring, pedicuring, tip, fabric, acrylic, UV gel applications, nail art and electric filing techniques on classmates and clients under the direct supervision of the classroom instructor. Students must complete NAILS-340 prior to taking NAILS-343 or students can take NAILS-340, NAILS-342 and NAILS-343 in conjunction or have equivalent coursework. Prerequisite(s): Completion of or currently enrolled in NAILS-340. Must be admitted to the Nail Technician program (30-502-4).

NRSAD – Associate Degree Nursing (Department 543)

NRSAD-101 Credits: 2

Nursing Fundamentals

This course focuses on basic nursing concepts to provide evidence-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-1.21.P).

NRSAD-102 Credits: 3

Nursing Skills

This course focuses on development of evidence-based clinical skills and physical assessment across the lifespan. Content includes mathematical calculations and conversions related to clinical skills. In addition, the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-1.21.P).

NRSAD-103 Credits: 2

Nursing Pharmacology

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-1.21.P).

NRSAD-104 Credits: 2

Nursing: Introduction to Clinical Practice

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation and medication administration. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-1.21.P). Completion of or currently enrolled in NRSAD-101, NRSAD-102 and NRSAD-103.

NRSAD-105 Credits: 3

Nursing Health Alterations

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem-solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management. Prerequisite(s): Complete

NRSAD-101, NRSAD-102, NRSAD-103 and NRSAD-104. Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-1.21.P).

NRSAD-106 Credits: 3

Nursing Health Promotion

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. Recognizing the spectrum of healthy families, we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles and stages of development. Prerequisite(s): Complete NRSAD-101, NRSAD-102, NRSAD-103 and NRSAD-104. Must be admitted to the Registered Nursing (10-543-1) or the LPN-RN Progression (10-543-1.21.P) programs.

NRSAD-107 Credits: 2

Nursing: Clinic Care Across Lifespan

This clinical experience applies nursing concepts and therapeutic interventions to patients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-1.21.P). Completion of or currently enrolled in NRSAD-105 and NRSAD-106.

NRSAD-108 Credits: 2

Introduction to Clinical Management

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management, and team building. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-1.21.P). Completion of or currently enrolled in NRSAD-105 and NRSAD-106.

NRSAD-109 Credits: 3

Nursing Complex Health Alterations 1

Complex Health Alterations 1 prepares the learner to provide and evaluate care for patients across the lifespan with alterations in cardiovascular, respiratory, endocrine and hematologic systems as well as patients with fluid/electrolyte and acid-base imbalance, and alterations in comfort. Prerequisite(s): RN students complete NRSAD-105, NRSAD-106, NRSAD-107 and NRSAD-108 and must be admitted to the Registered Nursing program (10-543-1). LPN-RN Progression students complete NRSAD-191 and must be admitted to the LPN RN Progression program (10-543-10).

NRSAD – OFTECH

NRSAD-110 Credits: 2

Mental Health Community Concepts

This course will cover topics related to the delivery of community and mental healthcare. Specific health needs of individuals, families and groups will be addressed across the lifespan. Attention will be given to diverse and at-risk populations. Mental health concepts will concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups. Prerequisite(s): RN students complete NRSAD-105, NRSAD-106, NRSAD-107 and NRSAD-108, and must be admitted to the Registered Nursing program (10-543-1). LPN-RN Progression students complete NRSAD-191 and must be admitted to the LPN-RN Progression program (10-543-10).

NRSAD-111 Credits: 3

Nursing Intermediate Clinical Practice

This intermediate level clinical course develops the RN role when working with clients with complex healthcare needs. A focus of the course is developing skills needed for managing multiple clients across the lifespan and priorities. Using the nursing process, students will gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds. Prerequisite(s): Must be admitted to the Registered Nursing (10-543-1) or the LPN-RN Progression (10-543-10) programs. Completion of or currently enrolled in NRSAD-109, NRSAD-110 and NRSAD-112.

NRSAD-112 Credits: 1

Nursing Advanced Skills

This course focuses on the development of advanced clinical skills across the lifespan. Content includes advanced intravenous skills, blood product administration, chest tube systems, basic electrocardiogram interpretation and nasogastric/feeding tube insertion. Prerequisite(s): Must be admitted to the Registered Nursing program (10-154-1) and take NRSAD-105, NRSAD-106, NRSAD-107 and NRSAD-108. Must be admitted to the LPN-RN Progression program (10-543-10) and have taken NRSAD-109, NRSAD-110 and NRSAD-191.

NRSAD-113 Credits: 3

Nursing Complex Health Alterations 2

Complex Health Alterations 2 prepares the learner to provide and evaluate care for patients across the lifespan with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary, reproductive systems and shock, burns and trauma. The learner will also focus on management of care for patients with high-risk perinatal conditions and high-risk newborns. Prerequisite(s): Complete NRSAD-109, NRSAD-110, NRSAD-111 and NRSAD-112. Must be admitted to the Registered Nursing (10-543-1) or the LPN-RN Progression (10-543-10) programs.

NRSAD-114 Credits: 2

Nursing Management and Professional Concepts

This course covers nursing management and professional issues related to the role of the registered nurse. Emphasis is placed on preparing for practice as a registered nurse. Prerequisite(s): NRSAD-109, NRSAD-110, NRSAD-111 and NRSAD-112. Must be admitted to the Registered Nursing (10-543-1) or the LPN-RN Progression (10-543-10) programs.

NRSAD-115 Credits: 3

Nursing Advanced Clinical Practice

This advanced clinical course requires the student to integrate concepts from all previous courses in the management of groups of clients facing complex health alterations. Students will have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized. Prerequisite(s): Must be admitted to the Nursing (10-543-1) or the LPN-RN Progression (10-543-10) programs. Completion of or currently enrolled in NRSAD-113 and NRSAD-114.

NRSAD-116 Credits: 2

Nursing Clinical Transition

This clinical experience integrates all knowledge learned in the previous courses in transitioning to the role of the graduate nurse. The course promotes relatively independent clinical decisions, delegation, and works collaboratively with others to achieve client and organizational outcomes. Continued professional development is fostered. Prerequisite(s): Must be admitted to the Registered Nursing program (10-543-1) or the LPN-RN Progression program (10-543-10). Completion of or currently enrolled in NRSAD-113, NRSAD-114 and NRSAD-115.

NRSAD-191 Credits: 2

Nursing: Clinical Skill Development

The course focuses on development or enhancement of clinical skills and physical assessment across the lifespan. The course includes review of mathematical calculations and conversions related to clinical skills, skills competencies and physical assessment. In addition, the nursing process, role transition and concept mapping will be presented. Prerequisite(s): Must be admitted to the Practical Nursing LPN program (10-543-1.21.P).

NRSNA – Nursing Assistant (Department 543)

NRSNA-300 Credits: 2

Nursing Assistant

This course prepares the student for employment as an entry-level caregiver in healthcare facilities such as hospitals, clinics, nursing homes and home health service. Graduates of the course are eligible to take the National Nurse Aide Assessment Program Examination and gain entry into the Wisconsin Nurse Aide Registry. This program meets all state and federal training

requirements and is approved by the Wisconsin State Department of Health and Family Services. Prerequisite(s): Must be admitted to the Nursing Assistant program (30-543-1).

NRSPN – Practical Nursing (Department 543)

NRSPN-301 Credits: 2

Nursing Fundamentals

This course focuses on basic nursing concepts to provide evidence-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients.

NRSPN-302 Credits: 3

Nursing Skills

This course focuses on development of evidence-based clinical skills and physical assessment across the lifespan. Content includes mathematical calculations and conversions related to clinical skills. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach. Prerequisite(s): Must be admitted to Practical Nursing program (31-543-1).

NRSPN-303 Credits: 2

Nursing Pharmacology

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

NRSPN-304 Credits: 2

Nursing: Introduction to Clinical Practice

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation and medication administration. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1). Completion of or currently enrolled in NRSPN-301, NRSPN-302 and NRSPN-303.

NRSPN-305 Credits: 3

Nursing Health Alterations

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management. Prerequisite(s): Complete NRSPN-301, NRSPN-302, NRSPN-303 and NRSPN-304. Must be admitted to the Practical Nursing program (31-543-1).

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

NRSPN-306 Credits: 3

Nursing Health Promotion

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. Recognizing the spectrum of healthy families, we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles and stages of development. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1). Completion of or currently enrolled in NRSPN-301, NRSPN-302, NRSPN-303 and NRSPN-304.

NRSPN-307 Credits: 2

Nursing: Clinical Care Across the Lifespan

This clinical experience applies nursing concepts and therapeutic interventions to patients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1). Completion of or currently enrolled in NRSPN-305 and NRSPN-306.

NRSPN-308 Credits: 2

Nursing: Introduction to Clinical Management

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management and team building. Prerequisite(s): Must be admitted to the Practical Nursing program (31-543-1). Completion of or currently enrolled in NRSPN-305, NRSPN-306 and NRSPN-307.

NURSAD – Associate Degree Nursing (Department 510)

NURSAD-161 Credits: 1

Fundamentals of Medication Calculation

This one-credit course introduces the learner to basic math strategies for calculating medication dosages. In a low anxiety setting, the learner will review basic operations with decimals and fractions. Other topics include measurement systems and conversions and using ratio, proportion and formula methods for dosage calculations.

OFTECH-Office Technology (Department 106)

OFTECH-101 Credits: 3

Office Technologies 1

Using a hands-on approach, students will be introduced to computer technology used in an office environment. Units of instruction include file management and an introduction to the latest version of MS Office applications.

OFTECH-102 Credits: 3

Office Technologies

Students will continue to build their skills in the MS Office environment using Word, Excel, Access and PowerPoint. In addition, students will be introduced to integration applications using these programs. File management skills will also be reviewed. Prerequisite(s): Complete OFTECH-101.

OFTECH-103 Credits: 1

Keyboard and Keypad

Using a computer and web-based software, students learn keyboarding using the touch method. Emphasis is placed on correct fingering skills, accuracy and speed. Passing a Challenge Exam (30 words per minute with no more than three errors on a two-minute timing) may be completed in lieu of taking this course. Contact the Business & Management Pathway advisors for exam information.

OFTECH-104 Credits: 3

Budget Basics Support Personnel

Students will review basic mathematical operations and survey accounting principles and practices with an emphasis on applying them to administrative professional tasks: payroll, bank reconciliation, budgeting, accounts payable/receivable, and invoicing.

OFTECH-111 Credits: 3

Workplace Communication Support Personnel

Students in this course study the principles, strategies, and techniques of effective written, oral, and digital business communication. Emphasis is placed on applying grammar and mechanics to create written messages including e-mails, memos, letters, reports, and resumes. Students learn productive techniques for business meetings, presentations, and interviews, as well as communicating professionally in an increasingly global, digital workplace.

OFTECH-119 Credits: 3

Information Management

Students learn the basic principles and procedures of creation, storage, retrieval, retention and disposal of records. The management of electronic and image records is included. Rules for alphabetic, numeric, geographic, and subject filing are applied.

OFTECH-122 Credits: 3

Business English Essentials

This course is designed to improve oral and written communication skills. Study of English

fundamentals, including parts of speech, agreement, sentence types and plurals and possessives, as well as rules for punctuation, capitalization, number usage and spelling and vocabulary, are emphasized.

OFTECH-123 Credits: 3

Proofreading and Editing

This course is designed to help the student improve upon proofreading and editing skills using hard copy and computerized materials. The course will also introduce the student to basic transcription skills where the student will be required to apply proper proofreading and editing techniques. Prerequisite(s): Complete OFTECH-122 with minimum grade of C and OFTECH-133.

OFTECH-133 Credits: 3

Business Document Production 1

This course is designed to enhance keyboarding skills and to develop basic document formatting techniques while applying decision-making skills. Students will demonstrate specific document formatting and keying speed competencies. Prerequisite(s): Complete OFTECH-103.

OFTECH-137 Credits: 3

Business Document Production 2

Students acquire proficiency in producing documents, editing and composing more complicated business documents, making decisions, following directions and performing realistic office tasks through simulation. Prerequisite(s): Complete OFTECH-133.

OFTECH-146 Credits: 1

Keyboarding Skill Development 2

Using a computer and web-based software, this course is designed to improve keying speed and accuracy. Passing a Challenge Exam (50 words per minute with no more than five errors on a five-minute timing) may be completed in lieu of taking this course. Contact MATC's Business & Management Pathway for exam information. Prerequisite(s): Complete OFTECH-136.

OFTECH-153 Credits: 1

Collaboration Tools

Students will learn, compare, and analyze the successful use of collaboration and social media tools used in organizations today. Topics include online calendaring, online document editing and file sharing, social media, and video conferencing. Prerequisite(s): Complete OFTECH-105 or COMPSW-106.

OFTECH-165 Credits: 3

Administrative Office Procedures 1

This course is designed to develop administrative professional skills and attitudes needed in today's global business environment. Topics include communicating in a business environment, making ethical decisions, working independently and as a team member, and managing time. Learners are introduced to meeting, travel and event planning, mail processing, telecommunications and ergonomics. Prerequisite(s): Complete OFTECH-122 and OFTECH-133.

OFTECH – PHOTO

OFTECH-170 Credits: 3

Meeting Event Planning Support Personnel

This course introduces students to the basics of project planning as an administrative assistant. Students plan and execute meetings and business events. Meeting and event preplanning activities, facilitating events, producing meeting/event documentation, coordinating equipment, facility, and food and beverage needs will be discussed. Students plan travel for business executives as well as prepare a travel itinerary. Prerequisite(s): Complete OFTECH-101 and OFTECH-122.

OFTECH-182 Credits: 3

Customer Service Skills

Students will receive an introduction to customer service principles including the concepts and practices needed by today's support personnel for providing effective customer satisfaction in any business organization, domestic or international. Customer service strategies covered in this course include effective listening, oral and written communication, analytical and problem-solving skills, and teamwork.

OFTECH-183 Credits: 3

Bilingual Customer Service Skills

Overview of the behavior exhibited by successful customer service professionals featuring simulated business settings. Includes conventional behaviors of the workplace, professional communication in the customer service setting, grooming and clothing for a business setting, telephone and email etiquette basics, effective answers to sales questions, punctuality and the work ethic, professionalism in the workplace, basic qualitative activities, behavior with co-workers, customer service challenges, exceptional customer service, and career advancement strategies in customer service. In addition, learners will study and train in organizational communication within a multicultural global environment. Interpersonal communication skills in a culturally diverse workforce.

OFTECH-184 Credits: 3

MS Office: Word, Excel, Access and PowerPoint

This course offers skill development in PowerPoint including such items as multiple-page documents with attributes, spreadsheet with formulas and functions, database with tables, queries, forms/reports, presentations, internet and email. Prerequisite(s): Complete OFTECH-101.

OFTECH-185 Credits: 3

MS Office – Intermediate

This course offers skill development in intermediate and integrated applications in Word, Excel, Access, PowerPoint, and other technologies including online networking tools. Prerequisite(s): Complete OFTECH-184.

OFTECH-190 Credits: 1

Bilingual Office Assistant Internship

This course will be a cooperative training program that allows bilingual students to utilize

skills and knowledge in an approved business office, under the supervision and guidance of a teacher and a cooperating employer that serves a diverse population. Prerequisite(s): Complete OFTECH-183 and INTRN-796 with minimum grade of C.

OFTECH-196 Credits: 1

Administrative Professional Internship

This course is a cooperative training program that allows students to utilize skills and knowledge in an approved business office, under the supervision and guidance of a teacher-coordinator and a cooperating employer. Prerequisite(s): Complete INTRN-796. Completion of or currently enrolled in OFTECH-165 and OFTECH-184.

OTASST – Occupational Assistant (Department 514)

OTASST-171 Credits: 3

Introduction to Occupational Therapy

Provides an overview of history, philosophy, ethics and scope of occupational therapy practice. The course examines legal responsibilities, professional resources and organization. Students practice basic skills related to therapeutic relationships and determine their own suitability to a career in occupational therapy. Prerequisite(s): Must be admitted to the Occupational Therapy Assistant program (10-514-1).

OTASST-172 Credits: 3

Medical and Psychosocial Conditions

This course introduces medical and psychosocial conditions as they relate to occupational therapy practice. Topics include etiology, symptomology, treatment and contraindications. Prerequisite(s): Must be admitted to the Occupational Therapy Assistant program (10-514-1). Completion of or currently enrolled in OTASST-171 and OTASST-173.

OTASST-173 Credits: 2

Activity Analysis and Application

Provides instruction in activity analysis with hands-on experience in activities across the lifespan. Students apply the teaching/learning process and adhere to safety regulations. Prerequisite(s): Must be admitted to the Occupational Therapy Assistant program (10-514-1).

OTASST-174 Credits: 4

OT Performance Skills

The emphasis of this course is on the development of skills related to assessment and intervention in the areas of sensory, motor, cognition and communication. Prerequisite(s): Complete OTASST-171, OTASST-172 and OTASST-173.

OTASST-175 Credits: 3

Psychosocial Practice

Examines the role of the OTA in the service delivery to individuals affected by mental health conditions. Provides an opportunity for development of skills related to psychosocial

assessment and interventions. Prerequisite(s): Complete OTASST-174, OTASST-176 and OTASST-178.

OTASST-176 Credits: 3

OT Theory and Practice

Examines the theoretical foundations that guide OT practice. Apply group dynamics and demonstrate leadership skills. Prerequisite(s): Complete OTASST-171, OTASST-172 and OTASST-173.

OTASST-178 Credits: 3

Geriatric Practice

This course provides opportunities for the learner to examine the role of the OT in the service delivery to elders in a variety of settings. The course includes analysis of the impact of age-related changes and disease processes on the function of the elderly. Prerequisite(s): Complete OTASST-171, OTASST-172 and OTASST-173.

OTASST-179 Credits: 2

Community Practice

Explores practice options and interventions for occupation-based community practice. Students articulate the unique role of occupational therapy within the community. Prerequisite(s): Complete OTASST-171 OTASST-172 and OTASST-173.

OTASST-184 Credits: 2

OTA Fieldwork I

Integrate classroom theory and practice into a field work Level I experience. Provides experiences to assist in the development of communication, professional and observational skills. Prerequisite(s): Completion of or currently enrolled in OTASST-175, OTASST-189 and OTASST-190.

OTASST-185 Credits: 2

OT Practice and Management

Provides opportunities to practice clinical management skills, continuous quality improvement measurement and administrative concepts and procedures. Students create a professional development plan. Prerequisite(s): Complete OTASST-175, OTASST-179, OTASST-189, OTASST-190 and OTASST-184.

OTASST-186 Credits: 5

OTA Fieldwork IIA

Develop skills and behaviors necessary for entry-level occupational therapy assistant practice. Provides a different clinical practice setting than OTA Fieldwork IIB. Prerequisite(s): Complete OTASST-175, OTASST-179, OTASST-184, OTASST-189 and OTASST-190.

OTASST-187 Credits: 5

OTA Fieldwork IIB

Develop skills and behaviors necessary for entry-level occupational therapy assistant practice. Provides a different clinical practice setting than OTA Field IIB. Prerequisite(s): Completion of or currently enrolled in OTASST-185 and OTASST-186.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

OTASST-189 Credits: 4

OT Physical Rehab Practice

Explores interventions relative to major physical disability diagnoses seen in OT practice. Evaluation, treatment interventions, assistive technology and documentation are emphasized relative to the biomechanical, neurodevelopmental and rehabilitative approaches to practice. Prerequisite(s): Complete OTASST-174, OTASST-176 and OTASST-178.

OTASST-190 Credits: 4

OT Pediatric Practice

Explores interventions relative to major pediatric diagnoses seen in OT practice. Evaluation, treatment interventions, assistive technology and documentation are emphasized within the context of the child's occupations. Prerequisite(s): Complete OTASST-174, OTASST-176 and OTASST-178.

PHARMT – Pharmacy Technician (Department 536)

PHARMT-300 Credits: 1

Orientation to Pharmacy Operations

Technical aspects of pharmacy are introduced with special emphasis on community pharmacy practices. Topics include drug distribution systems, routes of administration, dosage forms, drug standards, label format, prescription processing, prescription insurance, inventory and nonsterile compounding. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).

PHARMT-302 Credits: 2

Pharmaceutical Calculations

Basic math computations are reviewed, including addition, subtraction, multiplication and division of whole numbers, fractions and decimals. The course covers specific areas of the avoirdupois, apothecary and metric systems of measurement used in dosage calculations. Formulas and methods used in the preparation of pharmaceutical products are presented. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).

PHARMT-303 Credits: 2

Introduction to Drug Classification

This course introduces the principles of pharmacology, including therapeutic classification of medications, their actions and adverse reactions. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).

PHARMT-306 Credits: 2

Pharmacy Clinical Experience 1

This course provides practical application of knowledge and technical skills covered in didactic and laboratory portions of the program. Students observe, assist and perform assigned duties in a community pharmacy setting. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307, PHARMT-395 and HEALTH-107. Completion of or currently enrolled in HEALTH-104.

PHARMT-307 Credits: 1

Community Pharmacy Lab

This laboratory course applies theory through performance of technical pharmacy tasks in a community pharmacy setting. Emphasis is on outpatient prescription processing. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1). Completion of or currently enrolled in PHARMT-300, PHARMT-302, PHARMT-303 and PHARMT-395.

PHARMT-310 Credits: 1

Institutional Pharmacy Practice

Topics specific to institutional pharmacy practice are presented. In addition, the course assists students to prepare for employment as a pharmacy technician. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307 and PHARMT-395.

PHARMT-312 Credits: 3

Pharmacy Operations Laboratory

This laboratory course applies theory through performance of technical pharmacy tasks in an institutional pharmacy setting. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307 and PHARMT-395.

PHARMT-314 Credits: 2

Pharmacy Clinical Experience 2

This course provides the practical application of knowledge and technical skills covered in didactic and laboratory portions of the program. Students observe, assist and perform assigned duties in an institutional pharmacy setting. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-395, HEALTH-107 and PHARMT-307. Completion of or currently enrolled in PHARMT-310, PHARMT-311, PHARMT-312 and PHARMT-306.

PHARMT-315 Credits: 1

Advanced Pharmacy Tech Lab

This laboratory course applies theory through performance of technical pharmacy tasks. Emphasis is on advanced pharmacy technician roles. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307 and PHARMT-395. Must be admitted to the Pharmacy Technician program (31-536-1).

PHARMT-317 Credits: 1

Orientation to Sterile Solutions

This course focuses on introductory material related to techniques for safe preparation of sterile solutions. Application of basic principles of microbiology, aseptic technique and the operation of both the vertical and horizontal laminar flow hoods to acceptable pharmacy practice standards is presented. Prerequisite(s): Complete PHARMT-300, PHARMT-302, PHARMT-303, PHARMT-307, and PHARMT-395.

PHARMT-395 Credits: 1

Federal Laws, Ethics and Customer Service

This course introduces the student to the practice of pharmacy including the history of the profession and a description of the roles of

the pharmacist and the pharmacy technician in various practice settings. Federal laws, ethics, professional standards, and customer service are addressed. Prerequisite(s): Must be admitted to the Pharmacy Technician program (31-536-1).

PHOTO – Photography (Department 203)

PHOTO-100 Credits: 1

Introduction to Digital Photography

Using a digital camera to create consistent and good photographs requires knowledge and understanding of complex skills. If you have little experience with your camera these can be daunting. Setting the proper shutter speed and knowing how different aperture settings, or ISO, effect your image is critical to successful photography. Knowing how to achieve proper digital files with your camera is an important step in this process. Learn to select the right lens and to properly plan how you compose photographs. Having photographs printed will be discussed.

PHOTO-101 Credits: 3

Digital Fundamental Photography

Students will use their digital SLR camera to develop their creative thought while learning the technical and mechanical aspects of photography. Students are required to own a Canon or Nikon D-SLR with manual exposure controls, adjustable apertures and shutter speeds, and interchangeable lens capabilities.

PHOTO-103 Credits: 3

Digital Photography

The theory and application of professional digital original photography will be studied. Students will use assorted high-end professional digital camera systems and output images via professional caliber, continuous-tone, digital printing systems. Prerequisite(s): Complete PHOTO-108, PHOTO-139, PHOTO-141 and PHOTO-130.

PHOTO-106 Credits: 3

View Camera Techniques

Students will learn how to use a view camera to control the perspective, form and rendition of photographic subjects. Also emphasized are elements of composition and visual organization of the photographic image. Additionally, students learn black-and-white film processing, scanning, inkjet printing and finishing techniques. Prerequisite(s): Complete PHOTO-108, PHOTO-139, PHOTO-130 and PHOTO-141.

PHOTO-107 Credits: 1

Photographic Trends

Photography has been used to create portrait and pictorial photographs, record history-making events and influence social change. To understand how the medium has evolved, students learn about important photographs and the photographers who created them.

PHOTO – PLEGAL

PHOTO-108 Credits: 3

Photographic Lighting

Many light sources are used in professional photography, including natural, incandescent and electronic flash. Students learn the theory of these and other light sources and become competent in their use through practical application. Prerequisite(s): Complete PHOTO-101.

PHOTO-114 Credits: 3

Photographic Portfolio

This course is designed as the keystone to the completion of the Photography program. The thrust is the development of a working portfolio in preparation for employment. The resume, interviewing and job search techniques, as well as business basics, are also stressed. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124 and PHOTO-142.

PHOTO-121 Credits: 3

Commercial Photography

Effective photography for advertising requires special considerations, including psychological motivation and appeals used in selling. In addition, students learn how to control subject form and tonality, and the function of the photographer as director. Both film and digital processes will be incorporated. Prerequisite(s): Complete PHOTO-108, PHOTO-139 and PHOTO-130.

PHOTO-124 Credits: 3

Portraiture

Students work with a variety of subjects in both studio and location settings to produce pleasing likenesses and character studies. Dealing with people as subjects in a relaxed fashion and photographer/subject interaction are stressed. The presentation of the final product is also covered. Prerequisite(s): Complete PHOTO-108, PHOTO-139, PHOTO-141 and PHOTO-130.

PHOTO-125 Credits: 2

Conceptual Photography Projects

This course will help students focus on one photographic project that will be conceived, developed and finished in book form. Students will produce a new cohesive group of images created specifically for this class. This class is for hobbyists, aspiring professionals, fine art photographers or professionals intending to produce a “personal” project. Prerequisite(s): Complete PHOTO-101, PHOTO-141, PHOTO-107, PHOTO-130 and PHOTO-108.

PHOTO-126 Credits: 3

Advanced Lighting

Advanced Studio Lighting is a study and execution of modern lighting techniques. Students learn how to apply these techniques in order to produce progressive studio work in a variety of studio situations. Prerequisite(s): Complete PHOTO-103 and PHOTO-108.

PHOTO-130 Credits: 3

Photographic Composition

This course is designed as a critical study of traditional/contemporary composition

considerations and of the importance of the photographic critique. Students will be dealing with a photographic dialogue that will emphasize the visual elements and effects of color, line, value, texture, volume, time and form. Prerequisite(s): Complete PHOTO-101.

PHOTO-139 Credits: 3

Measurement Techniques

Students learn to control photographic technique by utilizing the digital zone system. This controlled system will enable students to accurately pre-visualize the finished photograph before capture. Emphasis is on the testing of light meters, camera sensors, lenses and setting up of a calibrated workflow with their own DSLR camera. Once a calibrated system is in place, proper workflows will allow accuracy from capture to final output. Prerequisite(s): Complete PHOTO-101.

PHOTO-141 Credits: 3

Photoshop for Photographers 1

Photoshop for Photographers 1 is a fundamental Photoshop course. Emphasis is placed on Photoshop tools and techniques, color theory and understanding preference settings. Students will use a digital camera to develop their awareness of color and enhance their technical skills. Photoshop and other digital imaging editing software and film scanning are introduced using professional equipment.

PHOTO-142 Credits: 3

Photoshop for Photographers 2

Photoshop for Photographers 2 is an advanced Photoshop course. Students continue to develop skills utilizing Photoshop tools and apply color management, compositing and planning into multilayered projects. Students use digital cameras to develop awareness of color control and to enhance technical skills. Emphasis is placed on complex Photoshop composites and advanced selection methods. Prerequisite(s): Complete PHOTO-141.

PHOTO-166 Credits: 1

Photographic Management

This course is designed to provide students with the basic understanding of the activities and principles for managing photography-related enterprises including the challenges and responsibilities of operating a business. The emphasis is on communication skills, estimating, management, marketing, finance and negotiation. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124 and PHOTO-142.

PHOTO-173 Credits: 3

Photo Journalism

This course is designed to develop the necessary skills to make concise photos that convey a message, either news or documentary, with emphasis placed on the deadline nature of photo journalism. Topics include ethical and legal considerations and the electronic darkroom. Prerequisite(s): Complete PHOTO-108 and PHOTO-139.

PHOTO-180 Credits: 3

DSLR Video

Lectures outline the work performed by in-house industrial or corporate photographers. Studio and location assignments enforce the skills required to function in today’s commercial climate. Students incorporate color and black-and-white film media as well as digital capture methods to complete assignment work. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124, and PHOTO-142.

PHOTO-190 Credits: 1

Photography Internship

This course is designed to offer the advanced photography student an opportunity to experience “real-life” work situations in the photographic community. Students will share their on-the-job experiences with the class. Prerequisite(s): Complete PHOTO-103, PHOTO-121, PHOTO-124 and PHOTO-142. Complete INTRN-796 with minimum grade of C.

PHYED – Physical Education (Department 807)

PHYED-203 Credits: 1

Hatha Yoga for Wellness 1

This Hatha Yoga class focuses on a path toward wellness. It includes postures and meditation techniques that are designed to develop symmetry and balance for the body, mind and spirit. Its exercise disciplines create challenges for self-improvement and control of stress.

PHYED-210 Credits: 3

An Active Approach to Wellness and Fitness

This lecture and lab course provides students with a contemporary approach to the total wellness concept, which includes physical fitness, exercise, nutrition and stress management. The relationship of physical fitness and activity to healthy lifestyles and wellness is examined. Students also learn CPR, make realistic appraisals of their health and identify and use physical techniques and wellness concepts to develop personal plans for lifetime wellness.

PHYED-233 Credits: 1

Stretch and Stability Techniques

Instruction is given in basic fundamentals and techniques of stretch exercises set to music. This involves a full range of muscle activity, with emphasis on body mechanics, flexibility and body toning.

PHYED-245 Credits: 1

Cardiopulmonary Resuscitation (CPR) and First Aid

This course develops skills needed to certify individuals in the techniques for rescue breathing, choking emergencies and other related breathing emergencies. The skills will also include training for resuscitation of the adult, child and infant along with proper techniques in two-person CPR, use of masks for rescue breathing and the proper instruction of an automated external defibrillator

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(AED). Successful course completion will give the individual office certification in CPR/AED for the Professional Rescuer and certification in First Aid Basics.

PHYED-248 Credits: 1 **Weight Training and Aerobic Fitness 1**

This course provides an individualized approach to various types of weight resistance training and aerobic conditioning. Specific training using machines, free weights and floor exercises is included. A diverse variety of cardiovascular exercise methods is also covered.

PHYED-249 Credits: 1 **Weight Training and Aerobic Fitness 2**

This course provides students with advanced strategies to improve their overall fitness. Included are demonstrations and activities involving warm-up procedures, stretching, resistance training, aerobic training and recovery.

PHYED-255 Credits: 1 **Body Toning and Resistance Training 1**

Specific techniques of body toning, along with progressive resistance exercises, are the focus of this course. A series of rhythmic exercises are taught to enhance muscular specificity for developing body shaping and muscular endurance, and improve physical appearance.

PHYED-256 Credits: 1 **Body Toning and Resistance Training 2**

This course is designed to teach advanced strategies of body toning and progressive resistance training. Select exercises are presented to enhance muscular specificity for developing body shaping and muscular endurance to improve physical appearance, as well as prepare for the physical demands of everyday living.

PHYED-266 Credits: 1 **Earth-Friendly Fitness**

In this course, students explore and participate in practical green (Earth-friendly) physical activities that help to utilize human energy to reduce our carbon footprint from mechanical and industrial behaviors.

PHYED-268 Credits: 1 **Fitness Walking 1**

This course introduces proper guidelines and techniques used in indoor and outdoor fitness walking. Students will learn proper walking mechanics and develop a lifelong walking program. Various forms of walking and related exercises are presented.

PHYS – Physics (Department 806)

PHYS-139 Credits: 3 **Survey of Physics**

This course emphasizes understanding basic physics concepts through laboratory investigation and applications. Topics include kinematics, dynamics, work, energy, power, temperature, heat, waves, electricity, magnetism, electromagnetic waves, optics, and atomic and nuclear physics.

PHYS-221 Credits: 4 **College Physics 1**

College Physics is a first-semester physics course to study the principles of mechanics and heat. Calculus is not required. Laboratory work involves the analysis of data using computers. Prerequisite(s): Complete MATH-202 or MATH 230.

PHYS-222 Credits: 4 **College Physics 2**

This is a second-semester physics course to study the principles of electricity, magnetism, light, optics and the basics of modern physics. Lab work will include experiments related to the above topics and data analysis via computer. Calculus is not required. Prerequisite(s): Complete PHYS-221.

PHYS-225 Credits: 3 **Introductory Astronomy**

This introductory course covers the principles, theories and understandings related to astronomy. Topics to be covered include the history of astronomy, telescopes, the earth and the solar systems, the sun as a star and other stars, galaxies, and theories of the universe.

PHYS-226 Credits: 1 **Observational Astronomy**

This course is designed to provide hands-on experience in the application of the laws of physics to astronomy. Using computers as well as other technological instruments in the field of astronomy, students observe phenomena and experience astronomical events. This course focuses on identification of the tools of astronomy and their use in solving basic problems in astronomical theory. This laboratory should be taken only in conjunction with, or subsequent to GEOSCI-225.

PHYS-274 Credits: 4 **Calculus-Based Physics 1**

This is the first part of a two-part sequence of calculus-based physics for prospective engineering students. Topics covered include theoretical and experimental treatment of motion, material properties, fluids and heat. Prerequisite(s): Completion of or currently enrolled in MATH-232.

PHYS-275 Credits: 4 **Calculus-Based Physics 2**

This is the second part of a two-part sequence of calculus-based physics. Topics include electricity, magnetism, optics and some modern physics. Prerequisite(s): Complete PHYS-274 with minimum grade of C.

PLEGAL Paralegal (Department 110)

PLEGAL-101 Credits: 3 **Introduction to Paralegalism**

This course offers an orientation to the American judicial system, the growth and development of the paralegal profession, ethics, and skills

required to practice such as interviewing, investigation, legal reasoning, and writing and document preparation.

PLEGAL-103 Credits: 3 **Legal Research**

This course provides an understanding of the law library through projects that develop research skills by using digests, legal encyclopedias, reporter systems, treatises and practice manuals. Students also become familiar with computerized legal research. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-105 Credits: 3 **Civil Procedure**

This course covers the fundamental principles used in civil litigation. Students apply the procedural concepts discussed by reviewing forms and drafting pleadings and other documents used in civil litigation. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-107 Credits: 3 **Legal Writing**

This course involves the use of principles that apply to effective legal writing. Students draft memoranda, briefs, letters and other forms of correspondence to gain skills in communicating legal concepts in various areas of the law. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-111 Credits: 3 **Litigation Practice Systems**

This course is a study of the procedures involved and the documents that may be used in a civil lawsuit prior to filing, during the resolution of the matter and after the judgment. Included in the study is the paralegal's role in interviewing and investigative techniques, settlement procedures and trial preparation. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-114 Credits: 3 **Trusts and Estates – Probate Systems**

Students learn the fundamental principles of estate planning, wills and trusts as well as the essential processes of formal and informal probate using Wisconsin law as a perspective. Estate and gift taxation are also explored by the student. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL – POWENG

PLEGAL-116 Credits: 3

Real Estate Law and Practice

This course examines the law of real property, real estate interests, transactions and processes. Forms used in Wisconsin real estate transactions will be used. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-118 Credits: 3

Criminal Practice

The course concentrates on the sources and purposes of criminal law, the meaning of criminal responsibility, elements of crimes, defenses and criminal procedures. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-121 Credits: 3

Domestic Relations and Divorce Practice Systems

This course is a study of actions that affect the family such as divorce, legal separation, annulment, paternity and adoption. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-123 Credits: 3

Corporate Practice Systems

Students are introduced to the various types of business organizations with special emphasis on the limited liability company and the corporation. Topics include formation of business entity, required recordkeeping, securities regulations and organizational maintenance. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-127 Credits: 3

Debtor-Creditor Law

This course examines the law relating to creation of debt, collection of debt and bankruptcy. Forms used in Wisconsin collection practice and U.S. Bankruptcy Court will be used. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLEGAL-140 Credits: 3

Legal Interviewing/Investigation

This course instructs students how to access public records, interview witnesses, locate missing persons and use the internet as an investigative tool. Prerequisite(s): Complete PLEGAL-101. Must be admitted to the Legal Studies/Paralegal program (10-110-1) or Post-Baccalaureate Legal Studies/Paralegal program (30-110-2).

PLUMB – Plumbing (Department 427)

PLUMB-300 Credits: 3

Plumbing Theory 1

This fundamental course presents the theory of basic methods of plumbing and piping installation practices. It is intended to complement the course PLUMB-302 Plumbing and Piping Shop 1.

PLUMB-301 Credits: 2

Applied Drawing for Plumbers 1

This course covers basic principles that are essential for visualization and training in the interpretation of blueprints and freehand sketches of simpler plumbing and piping jobs. This includes drawing scales, piping symbols and architectural symbols.

PLUMB-302 Credits: 3

Plumbing and Piping Shop 1

Students will be able to apply the knowledge they have gained and the skills they have learned to practical design and construction of complete plumbing installations. They will also be able to develop systemized methods of plumbing installation practices, as well as learn the use and care of plumbing fixtures, appliance equipment and power tools.

PLUMB-304 Credits: 3

Plumbing Theory 2

This course is designed to present the general rules, definitions and principles of the Uniform Wisconsin State Plumbing Code. Students will learn about the code and its regulations. Additionally, students learn the design and installation of various plumbing systems. Prerequisite(s): Complete PLUMB-300.

PLUMB-305 Credits: 2

Plumbing and Pipe Joining Process 2

This course is designed to provide students with advanced pipe joining processes associated with the plumbing field. Specifically, students learn fundamentals of ARC welding, gas welding and wire welding. The course also includes plastic pipe joining methods for potable water, waste and vent systems. Prerequisite(s): Complete PLUMB-308.

PLUMB-306 Credits: 3

Plumbing and Piping Shop 2

This course is designed to provide students with an opportunity to apply plumbing practices in a shop or actual work setting. The course requires students to combine theory and drawing skills to demonstrate their installation ability. Prerequisite(s): Complete PLUMB-302.

PLUMB-308 Credits: 2

Plumbing and Pipe Joining Process 1

This course is designed to provide students with basic pipe joining processes associated with the plumbing field. Specifically, students will learn fundamentals of cutting, reaming, threading, soldering and brazing. The course also includes oxygen/acetylene cutting methods.

PLUMB-309 Credits: 2

Applied Drawing for Plumbers 2

This course is designed to provide students with experience in drawing. This includes design and layout work, which then leads students to plan view elevations and isometric drawings. Prerequisite(s): Complete PLUMB-301.

PLUMB-310 Credits: 1

First Aid/Safety in Plumbing

This course is designed to provide students with first aid/CPR according to the American Red Cross. Additionally, students will cover U.S. Occupational Safety and Health Administration (OSHA) guidelines.

PLUMB-312 Credits: 1

Computer Applications/Plumbing

This course is designed to provide students word processing, PowerPoint, spreadsheet and internet skills. Students will have an opportunity to apply computer skills in various learning activities.

POLICE – Police Science (Department 504)

POLICE-115 Credits: 3

Criminal Evidence

This course describes the constitutional principles and the federal and state laws governing the admissibility of evidence into the judicial system. It also describes the procedures used in the collection, preservation, examination and presentation of evidence in a trial. Prerequisite(s): Complete POLICE-901.

POLICE-144 Credits: 3

Law Enforcement Internship 1

This course provides students with the opportunity to observe, identify and possibly assist in law enforcement theory, skills and techniques covering the broad spectrum of law enforcement issues, including problem-solving tools, legal procedures and avenues within the law enforcement community. All students must submit to a criminal background check, driver's license check and provide medical documentation of fitness signed by a physician prior to participation in this course. Prerequisite(s): Complete POLICE-900, POLICE-901 and POLICE-902 with minimum grade of C.

POLICE-145 Credits: 3

Law Enforcement Internship 2

This course provides students with the opportunity to continue to observe, identify and possibly assist in law enforcement theory, skills and techniques covering the broad spectrum of law enforcement issues, including problem-solving tools, legal procedures and avenues within the law enforcement community. Required: 15 credits with a GPA of 3.0 or better earned within the MATC Criminal Justice-Law Enforcement program core classes and with consent of Associate Dean of Protective Services. All students must submit to a criminal background check, driver's license check and provide medical documentation of fitness signed by a physician

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

prior to participation in these training courses. Prerequisite(s): Complete 15 credits of POLICE coursework with minimum grade of C.

POLICE-163 Credits: 3

Interview and Interrogation

Student will learn the legal issues that define the interviewing of subjects, both in public or in custody, and various techniques to enhance information obtained including analysis of verbal and nonverbal actions and how they relate to truth or deception of persons during the interview process. Prerequisite(s): Complete POLICE-900, POLICE-902 and POLICE-905.

POLICE-380 Credits: 2

Overview of Investigations

Through classroom lecture, on-campus lab and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Interviews and Report Writing I. The DOJ Phase I Written Examination will be administered in this course.

POLICE-381 Credits: 3

Principles of Tactics

Through classroom lecture, on-campus lab and integration exercises, students will learn and apply skills addressed in the following Phase II topics from the Wisconsin Department of Justice 720 Academy curriculum frameworks: Professional Communication Skills II, DAAT, Firearms II, Tactical Response and Tactical Emergency Critical Care For Law Enforcement Officers.

POLICE-382 Credits: 2

Application of Investigations

Through classroom lecture, on-campus lab, and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Phase III topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Conduct, Cultural Competence II, Interrogations, Testifying in Court, Crimes III and Physical Evidence Collection.

POLICE-383 Credits: 2

Principles of Investigation

Through classroom lecture, on-campus lab, and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Phase II topics of the Wisconsin Department of Justice 720 Academy curriculum framework: Constitutional Law II, Physical Evidence Collection and Crisis Management. The Phase II Written Exam will be given in this course.

POLICE-384 Credits: 1

Overview of Tactics

Through classroom lecture, on-campus lab and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum

framework Phase I topics: Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness I and DAAT I.

POLICE-385 Credits: 2

Overview of Patrol Response

Through classroom lecture, on-campus lab and Wisconsin Department of Justice integration exercises, students will learn and apply skills addressed in the following Wisconsin Department of Justice 720 Academy curriculum framework Phase I topics: Critical Thinking and Decision-Making, Basic Response (RESPOND), Radio Procedures, Introduction to TraCS, Traffic Law Enforcement I, First Aid, CPR/AED, Naloxone/Narcan and Physical Fitness. This course will also include the Wisconsin DOJ 720 Academy Integration Exercises.

POLICE-386 Credits: 2

Application of Traffic Response

Through classroom lecture, on-campus lab and Wisconsin Department of Justice integration exercises, students will learn and apply skills addressed in the following Phase III topics from the Wisconsin Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement - Core and Radar, Traffic Crash Investigations and Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), Hazardous Materials and Weapons of Mass Destruction (WMD), Incident Command Systems and NIMS, and Report Writing.

POLICE-387 Credits: 1

Health and Fitness

Through classroom lecture and on-campus lab, students will apply Phases I-III Physical Fitness Wisconsin Department of Justice 720 Academy curriculum framework program requirements and Officer Wellness Suicide Prevention.

POLICE-388 Credits: 2

Principles of Patrol Response

Through classroom lecture, on-campus lab and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Wisconsin Department of Justice 720 Academy curriculum framework Phase II topics: Professional Communication Skills II, Incident Command Systems and NIMS, Hazardous Materials and WMD, Tactical Response, Crisis Management, and Tactical Emergency Casualty Care.

POLICE-389 Credits: 2

Principles of Emergency Vehicle Response

Through classroom lecture, on-campus lab, and Wisconsin Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.

POLICE-390 Credits: 1

Overview of Criminal Justice

Through classroom lecture and Wisconsin Department of Justice 720 Academy integration

exercises, students will learn and apply skills addressed in the following Wisconsin Department of Justice 720 Academy Phase I curriculum framework topics: Academy Orientation, Fundamentals of Criminal Justice, Ethics I, Cultural Competency, Agency Policy, and Professional Communication Skills 1.

POWENG – Power Engineering (Department 428)

POWENG-330 Credits: 1

Low Pressure Boilers

This course covers the basic operation of low pressure boilers and prepares the student for a Facilities Operating license 3rd Class (low pressure boiler license up to 15 psi). Curriculum includes boiler systems – fuel, draft, steam and feedwater. Absorption chillers, hot water boiler systems and operating procedures are covered. Licensing agency is the American Society of Power Engineers.

POWENG-331 Credits: 2

High Pressure Boilers

This class will prepare students to write the American Society of Power Engineers Facility Operating 2nd class licensing exam. The High Pressure Boilers class will also prepare students to recognize boiler terminology, comprehend feedwater, steam, fuel and draft systems. Students will learn heat transfer principles using air heaters, shell and tube heat exchangers, steam, and radiant heat. Basic electricity, boiler operation, water treatment programs, cooling towers, traps, strainers and burner management systems.

POWENG-332 Credits: 1

Boiler Operation

Students will have a comprehensive understanding of boiler operations, from routine checks and maintenance to problem-solving and safety protocols. This blend of theoretical knowledge and hands-on experience will prepare the learner for roles as a Class 2 Facility Operating Engineer. In alignment with American Society of Power Engineers (ASOPE) guidelines, the successful completion of this course will be recognized as one year of experience.

POWENG-333 Credits: 3

Plant Maintenance and HVAC Basics

A hands-on class for repairing, maintaining and troubleshooting equipment found in commercial and industrial settings. Training includes belt drives (alignment, tension and care of belts), chain drives, fans, couplings, motor alignments, bearing removal and installation, lubrication, solenoid valves, packing, gaskets, regulating valves, piping, air compressors, pumps, and other mechanical fundamentals.

POWENG-334 Credits: 1

Blueprint Reading for Power Engineering

Building blueprints are studied along with symbols and piping diagrams. Students will be able to locate and identify common building systems. Some mechanical assembly prints will also be covered.

POWENG – QETECH

POWENG-335 Credits: 3

Instrumentation and Controls

This course covers a wide variety of boiler and HVAC controls. Thermostats, pneumatic and electronic controls, and building automation systems, pressure transmitters, thermocouples, and gauges are just some of the instrumentation covered in this class.

POWENG-336 Credits: 1

Math for Power Engineers

This class contains practical applications commonly used in a variety of industries and trades. The class covers math concepts and how they are applied in boiler operation, HVAC, construction and manufacturing. Measuring in whole numbers and fractions are studied. Percentages and word problems are geared toward the everyday situations the working person finds him/herself in. Weekly quizzes and a comprehensive final exam are part of the learning experience.

POWENG-395 Credits: 3

Electricity for Power Engineering

Basic fundamentals of electricity in the power engineering field of facility maintenance, equipment operation and repair, and power generation.

PSYCH – Psychology (Department 809)

PSYCH-159 Credits: 3

Abnormal Psychology

The course addresses the foundations of abnormal psychology and psychological disorders, including their characteristics, possible causes, assessments, diagnostic processes and treatments. The course includes examination of major historical and theoretical perspectives, research, sociocultural considerations and elements of psychological wellness.

PSYCH-188 Credits: 3

Developmental Psychology

Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

PSYCH-198 Credits: 3

Introduction to Psychology

This science of psychology course is a survey of multiple aspects of behavior and mental processes. It provides an overview of topics such as research methods, theoretical perspectives, learning, cognition, memory, motivation, emotions, personality, abnormal psychology, physiological factors, social influences and development.

PSYCH-199 Credits: 3

Psychology of Human Relations

Explores the relationship between the general principles of psychology and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding enables students to improve their relationships with others at work, in the family, and in society.

PSYCH-230 Credits: 3

Cultural Psychology

This course is designed to provide a survey of psychological issues across a variety of cultures. Students will analyze how different aspects of culture affect human behavior, emotion and cognition and consider a variety of issues that are relevant to understanding and relating to people who are culturally different from one another. Prerequisite(s): Complete PSYCH-199, PSYCH-231 or PSYCH-238.

PSYCH-231 Credits: 3

Introductory Psychology

This introductory psychology course presents a contemporary survey of the multiple aspects of human behavior. It includes various theoretical foundations of human functioning in areas such as methodology, physiological factors, memory, human development, motivation, stress management, personality and pathology.

PSYCH-232 Credits: 3

Abnormal Psychology

This course surveys systematically the essential features, possible causes, assessment and treatment of the various types of abnormal behavior from the viewpoint of the major theoretical perspectives in the field of abnormal psychology. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

PSYCH-233 Credits: 3

Social Psychology

This course deals with perception, attitudes, values, communication and roles with relation to the community. Various contemporary social problems are examined, including racism. Emphasis is given to the sociology and psychology concerned with groups. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

PSYCH-237 Credits: 3

Child Psychology

Students are introduced to children's behavioral development from conception to adolescence. A comprehensive view of the child at each stage of growth is presented with the main focus on the interaction of heredity, physical constitution, maturation and socio-environmental factors. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

PSYCH-238 Credits: 3

Life-Span Psychology

Life-Span Psychology is the study of human development throughout the life span. This course explores developmental theory and research with an emphasis on the interactive

nature of the biological, cognitive and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

PSYCH-240 Credits: 3

Health Psychology

Students examine how psychosocial and behavioral factors influence health and disease processes. They will also analyze the relationship of individual and environmental factors to the development and management of specific diseases. Prerequisite(s): Complete PSYCH-199 or PSYCH-231.

PSYCH-270 Credits: 3

Educational Psychology

Educational Psychology is the study of how students learn, the effectiveness of particular teaching techniques, the dynamics of school populations and the psychology of teaching.

PTASST – Physical Therapy Assistant (Department 524)

PTASST-139 Credits: 4

PTA Patient Interventions

An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant. Prerequisite(s): Must be admitted to the Physical Therapist Assistant program (10-524-1).

PTASST-140 Credits: 2

PTA Professional Issues 1

Introduces the history and development of the physical therapy program, legal and ethical issues, the interdisciplinary healthcare team, and professional communications skills. Prerequisite(s): Must be admitted to the Physical Therapist Assistant program (10-524-1).

PTASST-142 Credits: 3

PTA Therapeutic Exercise

Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt and assess responses to therapeutic exercises. Prerequisite(s): Complete PTASST-156 and either BIOSCI-177 or both BIOSCI-201 and BIOSCI-202.

PTASST-143 Credits: 4

PTA Biophysical Agents

Develops the knowledge and technical skills necessary to perform various biophysical agents likely to be utilized as a PTA. Prerequisite(s): Complete PTASST-139 and PTASST-156. Must be admitted to the Physical Therapist Assistant program (10-524-1).

PTASST-144 Credits: 4

PTA Principles of Neuromuscular Rehabilitation

Integrates concepts of neuromuscular pathologies, physical therapy interventions and data collection in patient treatment. Prerequisite(s): Complete PTASST-139, PTASST-142 and PTASST-157.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

PTASST-145 Credits: 4

PTA Principles of Musculoskeletal Rehabilitation

Integrates concepts of musculoskeletal pathologies, physical therapy interventions and data collection in patient treatment. Prerequisite(s): Complete PTASST-156 and PTASST-139.

PTASST-146 Credits: 3

PTA Management of Cardiopulmonary and Integumentary Conditions

Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions and data collection in patient treatment. Prerequisite(s): Complete PTASST-139, PTASST-142 and PTASST-157.

PTASST-147 Credits: 2

PTA Clinical Practice 1

Provides a part-time clinical experience to apply foundational elements, knowledge and technical skills pertinent to physical therapy practice. Prerequisite(s): Completion of or concurrent enrollment in PTASST-139 and PTASST-157.

PTASST-148 Credits: 3

PTA Clinical Practice 2

Provides another part-time clinical experience to apply foundational elements, knowledge and technical skills required of the entry-level physical therapist assistant in various practice settings. Prerequisite(s): Complete PTASST-157.

PTASST-149 Credits: 2

PTA Rehabilitation Across the Lifespan

A capstone course that integrates concepts of pathology, physical therapy interventions and data collection across the lifespan. In addition to the PTA's role in health, wellness and prevention; reintegration, and physical therapy interventions for special patient populations will be addressed. Prerequisite(s): Complete PTASST-144, PTASST-145, PTASST-146 and PTASST-148.

PTASST-150 Credits: 2

PTA Professional Issues 2

Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communications strategies. Prerequisite(s): Complete PTASST-140 and PTASST-148.

PTASST-151 Credits: 5

PTA Clinical Practice 3

Provides a full-time clinical experience to apply foundational elements, knowledge and technical skills required of the entry-level physical therapist assistant in various practice settings. Prerequisite(s): Complete PTASST-144, PTASST-145, PTASST-146, and PTASST-148.

PTASST-156 Credits: 4

PTA Applied Kinesiology 1

Introduces basic principles of musculoskeletal anatomy, kinematics and clinical assessment. Students locate and identify muscles, joints and other landmarks of the lower quadrant, in addition to assessing range of motion and

strength. Prerequisite(s): Complete BIOSCI-177 or both BIOSCI-201 and BIOSCI-202 with minimum grade of B-. Must be admitted to the Physical Therapy Assistant program (10-524-1).

PTASST-157 Credits: 3

PTA Applied Kinesiology 2

Applies basic principles from PTA Kinesiology 1 to the axial skeleton and upper quadrant, including location and identification of muscles, joints and other landmarks. Assess range of motion and strength of the axial skeleton and upper quadrant. Integrate analysis of posture and gait. Prerequisite(s): Complete PTASST-156, PTASST-139 and PTASST-140.

QETECH – Quality Engineering Technology (Department 623)

QETECH-116 Credits: 3

Engineering Economic Analysis

Basic financial accounting principles, cost systems, interpretation and use of accounting reports, discounted cash flow techniques, capital budgeting, return on investment, cost/benefit analysis, project selection, and opportunity assessment will also be covered.

QETECH-118 Credits: 3

Lean Principles

Students will identify and apply Lean tools to streamline business processes. Topic areas include Value Stream Mapping, Layout, 5S Workplace Organization, Point of Use Storage, Visual Controls, Standard Work, Cellular and Flow Concepts, Lean Culture, Pull/Kanban Systems, Error-Proofing, and Total Productive Maintenance.

QETECH-132 Credits: 3

Lean Six Sigma Green Belt 1

This course is the first part of the Lean Six Sigma Green Belt curriculum. This course details the Lean Six Sigma philosophy and terminology, and provides the necessary tools for completion of your Green Belt certification project. This course uses a combination of hands-on activities, lab exercises, presentations and lectures to provide a strong foundation with the Lean Six Sigma tools. The curriculum is structured around the well-known DMAIC methodology. Upon successful completion of this course, students will gain the necessary skills to lead Lean Six Sigma process improvement projects, work on teams led by Lean Six Sigma Black Belts and help your organization effectively implement Lean Six Sigma. Prerequisite(s): Complete BADM-104 or MATH-260.

QETECH-134 Credits: 3

Six Sigma Green Belt 2

This course is the second part of the Lean Six Sigma Green Belt curriculum. This course details the Lean Six Sigma philosophy and terminology and provides the necessary tools for completion of your Green Belt certification project. This course uses a combination of hands-on activities, lab exercises, presentations

and lectures to provide a strong foundation with the Lean Six Sigma tools. The curriculum is structured around the well-known DMAIC methodology. Upon successful completion of this course, students will gain the necessary skills to lead Lean Six Sigma process improvement projects, work on teams led by Lean Six Sigma Black Belts and help your organization effectively implement Lean Six Sigma. Prerequisite(s): Complete QETECH-132.

QETECH-138 Credits: 3

Introduction to Quality Engineering

Studies principles and techniques of quality engineering in management, production and assurance of quality. Emphasizes fundamentals of total quality assurance for products, service and process control including fundamentals of statistics, sampling, control charts, quality reporting, process capability analysis, tool and gage control, document control, standards and continuous improvement methods. Prerequisite(s): Complete MATH-260 or BADM-104.

QETECH-142 Credits: 3

Lean Six Sigma Green Belt Project

Data collection and methods capstone project. Student will apply the Six Sigma problem-solving methodology to a real problem in their place of employment or through service learning. An emphasis will be placed on team skills, project deliverables, project, time and constraint management, and selection of appropriate tools and statistical techniques. Students will select one or more of four concentrations in healthcare, manufacturing, business operations, or environmental and social responsibility. Prerequisite(s): Complete QETECH-132 and QETECH-134.

QETECH-144 Credits: 3

Supplier Quality Assurance

Provides students with the knowledge to determine acceptance criteria, evaluate and select new suppliers, assist in supplier development, monitor supplier performance, and risk management (price variances, quality variability or delivery slippages). Includes the process to develop, implement and maintain an effective supplier nonconformance program in the organization. Students should be proficient in using the internet and Microsoft Office applications, including Word, Excel and PowerPoint, in this program. Those students who are not proficient in these applications should take COMPSW-106 or CIVIL-105. Prerequisite(s): Complete MATH-260 or BADM-104.

QETECH-188 Credits: 3

Project Management

In this course, students apply the skills and tools necessary to design, implement and evaluate formal projects. Each student demonstrates the application of the role of project management, develops a project proposal, uses relevant software, works with project teams, sequences tasks, charts progress, and deals with variations, budgets and resources, implementation, and assessment.

QETECH – RESPC

QETECH-193 Credits: 1

Lean Principles 2

Students will identify and apply Lean tools to streamline business processes. Topic areas include Value Stream Mapping, Layout, 5S Workplace Organization, Point of Use Storage, Visual Controls, Standard Work, Cellular and Flow Concepts, Lean Culture, Pull/Kanban Systems, Error-Proofing, and Total Productive Maintenance.

QETECH-200 Credits: 3

Fundamentals of Engineering

In this course, students will ascertain how to be successful in an undergraduate engineering technology program. The student will acquire the fundamental skills related to engineering technology, such as sketching, geometries, units of measure, and common computer applications. They will explore problem-solving strategies and career paths for a variety of engineering specialties. Upon completion of this course, students will document engineering career goals and an educational path to attain those goals.

QLTYIN – Quality Interdisciplinary (Department 625)

QLTYIN-103 Credits: 1

MSSC Safety

This class prepares the student to successfully complete the Manufacturing Skill Standards Council (MSSC) Safety online assessment. The class will concentrate on the specific content covered in the MSSC Safety module, and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC Certified Production Technician Safety credential.

QLTYIN-104 Credits: 1

MSSC - Quality

This class prepares the student to successfully complete the Manufacturing Skill Standards Council (MSSC) Quality online assessment. The class will concentrate on the specific content covered in the MSSC Quality module, and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC Certified Production Technician Quality credential.

QLTYIN-105 Credits: 1

MSSC - Process

This class prepares the student to successfully complete the Manufacturing Skill Standards Council (MSSC) Manufacturing Processes online assessment. The class will concentrate on the specific content covered in the MSSC Manufacturing Processes module, and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC Certified Production Manufacturing Processes credential.

QLTYIN-106 Credits: 1

MSSC - Maintenance

This class prepares the student to successfully complete the Manufacturing Skill Standards Council (MSSC) Maintenance online assessment. The class will concentrate on the specific content covered in the MSSC Maintenance module, and students that successfully complete the associated national exam will be awarded the nationally recognized MSSC certified Production Maintenance credential.

RADT – Radiography Technology (Department 526)

RADT-149 Credits: 5

Radiographic Procedures 1

This course prepares radiography students to perform routine radiologic procedures on various parts of the body including the upper body, hip, pelvis and ankle. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired results. Prerequisite(s): Must be admitted to the Radiography program (10-526-1). Completion of or currently enrolled in BIOSCI-177 or BIOSCI-202.

RADT-158 Credits: 3

Introduction to Radiography

This course introduces students to the role of radiography in healthcare. Students apply legal and ethical considerations to patient care and pharmacology in the radiologic sciences. Prerequisite(s): Must be admitted to the Radiography program (10-526-1) and be CPR certified.

RADT-159 Credits: 3

Radiographic Imaging

This course introduces radiography students to the process of creating radiographic images. Students determine the factors that affect image quality including contrast, density and distortion. Students apply OSHA standards for health and safety in the darkroom. Prerequisite(s): Must be admitted to the Radiography program (10-526-1).

RADT-168 Credits: 2

Radiography Clinical 1

This beginning-level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. Prerequisite(s): Must be admitted to the Radiography program (10-526-1).

RADT-174 Credits: 2

ARRT Certification Seminar

This course provides preparation for the national certification examination prepared by the American Registry of Radiologic Technologists.

Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized. Prerequisite(s): Must be admitted to the Radiography program (10-526-1).

RADT-189 Credits: 1

Radiographic Pathology

Prepares radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications and prognosis, and locate the radiographic appearance of pathologies. Prerequisite(s): Complete RADT-191. Student must be admitted to the Radiography program (10-526-1).

RADT-190 Credits: 2

Radiography Clinical 5

This fifth-level clinical course prepares radiography students to perform radiologic procedures on patients with some supervision. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Prerequisite(s): Must be admitted to the Radiography program (10-526-1)

RADT-191 Credits: 5

Radiographic Procedures 2

This course prepares radiography students to perform routine procedures on various parts of the body including the skull and spine. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired results. Prerequisite(s): Complete RADT-149, RADT-158, RADT-159 and RADT-168.

RADT-192 Credits: 3

Radiography Clinical 2

This second-level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

RADT-193 Credits: 3

Radiography Clinical 3

This third-level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting. Prerequisite(s): Complete RADT-230, RADT-191 and RADT-192. Must be admitted to the Radiography program (10-526-1).

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RADT-194 Credits: 3

Imaging Equipment Operation

This course introduces radiography students to the principles and application of X-ray technology. Students analyze how X-rays are produced and determine the corrective actions necessary for common equipment malfunctions. Prerequisite(s): Student must be admitted to the Radiography program (10-526-1).

RADT-195 Credits: 2

Radiographic Image Analysis

Prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems including equipment malfunctions and procedural errors.

RADT-197 Credits: 3

Radiation Protection and Biology

This course prepares radiography students to protect themselves and others from exposure to radioactivity. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards and guidelines for radiation exposure. Prerequisite(s): Complete RADT-194, RADT-231 and RADT-199.

RADT-198 Credits: 2

Radiography Clinical 6

This final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high-quality radiographs in the clinical setting. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

RADT-199 Credits: 3

Radiography Clinical 4

This fourth-level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Prerequisite(s): Complete RADT-193. Student must be admitted to the Radiography program (10-526-1).

RADT-230 Credits: 2

Advanced Radiographic Imaging

Explores the factors that impact image acquisition, display, archiving and retrieval. Guidelines for selecting exposure factors and evaluating images within digital systems are discussed. Principles of digital system quality assurance and maintenance are presented. Prerequisite(s): Complete RADT-149, RADT-158, RADT-159 and RADT-168.

RADT-231 Credits: 2

Imaging Modalities

Introduces radiography students to imaging modalities with an emphasis in computed

tomography and cross-sectional anatomy.

Prerequisite(s): Complete RADT-230, RADT-191 and RADT-193. Student must be admitted to the Radiography program (10-526-1).

RBUS – Related Business (Department 105)

RBUS-102 Credits: 3

Mathematics of Business

Students develop techniques to efficiently and accurately calculate business applications of checking accounts, bank reconciliation, percentage formula, rate and amount of increase and decrease, payroll, invoices, trade discounts, cash discounts, markup, markdown, interest, credit, and loans.

RBUS-111 Credits: 3

Business Communications

Students analyze communication situations to plan, draft and complete effective messages for both print and electronic delivery (including IM, voice messaging and blogging). Emphasis is on the application of strategies to prepare ethical, receiver-oriented messages for diverse audiences. Students may participate in team activities to develop skills critical for today's business environment.

RESPC – Respiratory Therapy (Department 515)

RESPC-111 Credits: 3

Respiratory Survey

Examines the role of the respiratory therapist within the healthcare community. Reviews the ethical, legal and regulatory principles that guide practice across diverse populations. Introductory patient assessment and critical thinking processes used in the development of respiratory care plans are explored. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to Respiratory Therapist program (10-515-1).

RESPC-112 Credits: 2

Respiratory Airway Management

Provides a comprehensive exploration of airway management concepts and skills. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Completion of or currently enrolled in RESPC-174.

RESPC-113 Credits: 3

Respiratory Life Support

Focuses on management of adult ventilatory support. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete RESPC-172 and RESPC-175. Completion of or currently enrolled in RESPC-112.

RESPC-145 Credits: 3

Respiratory Care Registry Review

This course provides respiratory care practitioners with a review of essential knowledge and techniques required for the advanced practitioner written registry and clinical simulation examinations. Prerequisite(s): Complete RESPC-113.

RESPC-171 Credits: 3

Respiratory Therapeutics 1

Introduces the topics of medical gas administration and humidity and aerosol therapy. The learner will apply physics, math and patient assessment concepts to oxygen, aerosol and humidity therapy. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to Respiratory Therapist program (10-515-1). Completion of or currently enrolled in RESPC-111 and BIOSCI-177 or BIOSCI-202.

RESPC-172 Credits: 3

Respiratory Therapeutics 2

Introduces therapeutic procedures including arterial puncture, bronchial hygiene, lung expansion therapy and pulmonary rehabilitation. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to Respiratory Therapist program (10-515-1). Completion of or currently enrolled in RESPC-171.

RESPC-173 Credits: 3

Respiratory Pharmacology

Examines basic pharmacology principles, drug dosage, and calculations. Medications for inhalation including mucolytics, bronchodilators and anti-inflammatories. Also includes cardiac drugs, anesthetic drugs, neuromuscular blockers and antimicrobials. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete BIOSCI-177 or BIOSCI-202. Completion of or currently enrolled in RESPC-111.

RESPC-174 Credits: 3

Respiratory/Cardiac Physiology

Provides the student with an in-depth knowledge of the structure and function of the respiratory and circulatory systems necessary to function as a competent respiratory therapist. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete BIOSCI-177 or BIOSCI-202. Must be admitted to the Respiratory Therapist program (10-515-1).

RESPC – SOCSCI

RESPC-175 Credits: 2

Respiratory Clinical 1

Introduces respiratory therapy practice in the hospital setting. Includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction and communication. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in a minimum of five (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical. Prerequisite(s): Complete RESPC-111. Completion of or currently enrolled in HEALTH-101, RESPC-171 and RESPC-172.

RESPC-176 Credits: 3

Respiratory Disease

Exploration of signs, symptoms, causes, progression and treatment of diseases or disorders of the body that affect the respiratory cardiopulmonary system. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete RESPC-111. Completion of or currently enrolled in RESPC-174.

RESPC-178 Credits: 3

Respiratory Clinical 2

Continued development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 12 (required and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Complete RESPC-175.

RESPC-179 Credits: 3

Respiratory Clinical 3

Continued development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 19 (required

and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Complete RESPC-178. Must be admitted to Respiratory Therapist program (10-515-1.07).

RESPC-180 Credits: 2

Respiratory Neonatal/Pediatrics Care

Provides a comprehensive orientation to the field of neonatal and pediatric respiratory care to include fetal development, birth, neonatal physiology, pulmonary dynamics, abnormal cardiopulmonary conditions, diseases, and noninvasive and invasive therapeutic interventions. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Must be admitted to the Respiratory Therapist program (10-515-1). Completion of or currently enrolled in RESPC-113.

RESPC-181 Credits: 3

Respiratory/Cardio Diagnostics

Advanced invasive and noninvasive diagnostic cardiopulmonary procedures including pulmonary function, hemodynamics and rescue medicine. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. Prerequisite(s): Complete RESPC-173. Must be admitted to the Respiratory Therapy program (10-515-1). Completion of or currently registered for RESPC-113 and RESPC-176.

RESPC-182 Credits: 3

Respiratory Clinical 4

Continued development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 26 (required and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Must be admitted to Respiratory Therapist program (10-515-1). Complete RESPC-179. Completion of or currently enrolled in RESPC-113.

RESPC-183 Credits: 3

Respiratory Clinical 5

Focuses on the completion of respiratory therapy competencies and transition to employment.

Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in all of the required (and required/simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical. Note: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional. Prerequisite(s): Must be admitted to Respiratory Therapist program (10-515-1). Complete RESPC-182.

RLEST – Real Estate (Department 194)

RLEST-175 Credits: 3

Technical Writing for Home Inspectors

Students will engage in hands-on technical writing tasks in order to be able to plan, design and execute well-developed documents for real estate related transactions using construction terms. These include various forms, business letters and marketing materials to be used in the home inspection business.

RLEST-180 Credits: 3

Principles of Real Estate

This course, in addition to Real Estate Law (RLEST-182), satisfies the educational licensing requirement that must be met prior to taking the State of Wisconsin Real Estate Salesperson Exam. The content of the course will address agency/brokerage, title and deeds, finance appraisal, home ownership, economics of real estate government limitation, forms, and contracts.

RLEST-181 Credits: 3

Principles of Commercial Real Estate

This course covers the broad area of commercial property, which includes retail facilities, office buildings, mini-storage and warehouses, as well as apartment complexes. Areas to be addressed include listing, leasing, financing, marketing, buying, selling, valuation and the advantages of specialization. The difference between commercial and residential buildings, as a real estate professional and as an investor, will be emphasized.

RLEST-182 Credits: 3

Real Estate Law

This course, in addition to Principles of Real Estate (RLEST-180), will satisfy the educational requirements for the State of Wisconsin Real Estate Salesperson Exam. The course will cover the duties and responsibilities of a real estate professional. Disclosure requirements, all forms, contracts, addenda, amendments, deed options, and land contracts will be covered thoroughly. Closing a transaction, discrimination, landlord/tenant law, and environmental issues will also be covered.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

RLEST-183 Credits: 3

Real Estate Broker Preparation

The course satisfies the educational requirement for the State of Wisconsin Real Estate Brokers Exam. The course will focus on closing a transaction, as well as the responsibilities of a broker, including employer and human resources, supervision and leadership, managing liability and risk, and disclosure duties. A real estate business, as a business, includes trust accounts, special issues from Starker Exchanges, auctions, foreclosures, and short sales. Instruction also includes familiarity with all of the forms and contract options.

RLEST-184 Credits: 3

Real Estate Mortgage Processing

The fundamentals of mortgage lending and lending terminology are covered, along with the sources of mortgage money from conventional to governmental financing. Mortgage lending math, loan documents, government agencies, and the secondary mortgage market are also examined. Government controls from the HUD-1 to the RESPA rules are covered. This is an ever-changing industry with many opportunities and complications.

RLEST-185 Credits: 3

Real Estate Investment Principles

Real estate investment fundamentals are explained. Types of investment real estate, investment objectives and the investment process are discussed. Investment techniques are analyzed from the gross rent multiplier to the internal rate of return and cap rates. You will be able to compare properties, investment opportunities or limitations.

RLEST-187 Credits: 3

Broker Management

This course plus the Broker Preparation RLEST-183 will meet the requirements for the State of Wisconsin licensing as a Real Estate Broker. The course will cover in depth all the State of Wisconsin real estate forms, contracts and documents. A heavy focus will be on the management of a real estate brokerage business. This would include business management, financial management, office management and employee or agent management. Another important area that will be covered in depth is the duties of a broker and ethics. We will look at these components considering industry standards and regulatory requirements.

RLEST-188 Credits: 3

Listing Selling and Sales Tools

Broker/Salesperson relationships and office/listing procedures are studied. Client responsibility and property information disclosure are examined. Listing Contract, Offer to Purchase, advertising sales plans/presentation are also reviewed. Current sales and marketing of real estate is reviewed.

RLEST-189 Credits: 3

Introduction to Home Inspection

This course is designed to meet the need for inspection knowledge for the real estate market,

including inspectors, realtor buyers and sellers. The course covers the physical components of a home, including soils, foundations, structure, plumbing, electrical, heating, venting and air conditioning. Public policy, procedures and report writing are also addressed in this class.

RLEST-190 Credits: 3

Introduction to Property Management

Property management is discussed in regard to leases, rent scheduling, selling space and renting techniques. Tenant selection, supervision and relations with owners are covered, along with purchasing, budgets, reports, and legal and professional relationships. Also addressed is the industry of providing property management services to both residential and commercial clients.

RLEST-191 Credits: 3

Residential Plumbing for Inspectors

This course focuses on passing the State of Wisconsin Uniform Dwelling Code Plumbing Inspector Exam. All plumbing code material on the exam will be covered in class including pipe sizing, water distribution and waste systems and cross connection.

RLEST-192 Credits: 3

Uniform Dwelling Code Construction for Inspectors

This course focuses on the Uniform Dwelling Code of the State of Wisconsin Department of Commerce and prepares students for the Department of Commerce Uniform Dwelling Code-Construction Inspector Certification Exam.

RLEST-193 Credits: 3

Residential Electrical for Inspectors

This course follows the requirements of the National Electrical Code. It provides students with the required knowledge to take the State of Wisconsin Uniform Dwelling Code Electrical Inspector Exam. The material covered will include service sizing, electrical boxes and distribution systems, as well as shock resistance.

RLEST-194 Credits: 3

UDC Heating, Ventilating, and Air Conditioning for Inspectors

This course focuses on the Uniform Dwelling Code of the State of Wisconsin Department of Commerce and prepares students for the Department of Commerce Uniform Dwelling Code - Heating, Ventilating and Air Conditioning Inspector Certification Exam.

RLEST-197 Credits: 3

Commercial Building Code for Inspectors

This course focuses on the Wisconsin Commercial Building Code of the State of Wisconsin Department of Commerce and prepares students for the Department of Commerce Commercial Building Inspector Certification Exam.

SOCSCI – Social Science (Department 809)

SOCSCI-103 Credits: 3

Think Critically and Creatively

Provides instruction about critical and creative thinking that is in high demand in all occupations. Models, theories and processes provide the foundation for learning logical thinking strategies. Students will apply a systematic approach to problem-solving by analyzing the problem, assessing possible solutions and making effective decisions. In addition, students will generate ideas and analyze complex issues. This course assists students with developing a critical thinking mindset, which is essential at every level of personal and professional life.

SOCSCI-149 Credits: 3

Ethics for the Professions

This course surveys the range of ethical theories relevant in ethics today. Critical discussions cover a range of approaches to the ethical dilemmas of various professions, such as health, human services, and business and industry. Students will select an ethical theory to support the Code of Ethics for their profession.

SOCSCI-166 Credits: 3

Introduction to Ethics: Theory and Application

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior, and apply a systematic decision-making process to these situations.

SOCSCI-172 Credits: 3

Introduction to Diversity Studies

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

SOCSCI-197 Credits: 3

Contemporary American Society

Examine the network of interdependent social systems that affect learners as employees, family members, and citizens. In this interdisciplinary course, learners will study public policy issues that illustrate how our traditional institutions, such as family, education, government, work, and media are being changed by global, political, demographic, multicultural and technological trends. By exploring contemporary issues, learners will expand their use of creative and critical thinking skills in evaluating information, making decisions, advocating positions and participating in the democratic process.

SOCSCI – SURGT

SOCSCI-200 Credits: 3

Introduction to Ethical Issues

Introduction to Ethical Issues is a course that surveys the range of theories and principles that are relevant in ethical discussion and debate today. Thoughtful exploration and examination will address the range of moral views and approaches that are pertinent to ethical dilemmas in both personal and public life, and from community or local interest to the larger worldview.

SOCSCI-203 Credits: 3

Introduction to Sociology

This is the study of social relationships with emphasis on groups and the structure of society. The course details the various social processes and concepts that shape behavior, analyzing such phenomena as culture, roles, groups, stratification, deviance, race, population and social change.

SOCSCI-204 Credits: 3

Marriage and the Family

This course is designed to make students aware of relationships and marriage in contemporary society. The basic functions of the family are studied and sociological and psychological principles are applied to family living.

SOCSCI-206 Credits: 3

Introduction to Cultural Anthropology

Students survey the broad field of anthropology with a strong emphasis on culture and its expressions in human societies. Cross-cultural comparison and descriptions based on fieldwork are utilized in order to understand human behavior realistically and without bias.

SOCSCI-207 Credits: 3

Introduction to Criminology

An analysis is made of criminal behavior. Theories of crime causation are examined, as well as crime typologies and crime statistics. The course provides an overview of criminal justice agencies.

SOCSCI-208 Credits: 3

Global Cultures and Politics

The goal of the course is to introduce students to a wide range of issues and concepts related to globalization from a cultural perspective. Students will be exposed to some of the pressing problems related to globalization that face humanity. Through course readings and class discussions, students will explore how they can find solutions to these problems. Major theories and cross-cultural demonstrations of globalization will be examined. Central to the course is how social actors and their communities respond to globalization processes, and how globalization has affected cultural values, politics and human behaviors.

SOCSCI-209 Credits: 3

Sociology of Religion

This is an introductory course in the study of religions from the viewpoint of the social sciences. Religion is presented as a universal function of human societies and as an aspect of group behavior.

SOCSCI-210 Credits: 3

Death and Dying

This course will concentrate upon the historical and sociological background of the customs and practices related to death and dying in the United States and other countries; the emotional reactions and adjustments to death and dying; and identification of services and resources.

SOCSCI-211 Credits: 3

Introduction to Women's Studies

This course is an introduction to understanding the world through diverse experiences of women. Together we will examine gender experience in both the public and private realms of society, in popular culture, and in institutions such as the workplace, the family, and the state. The course focuses on the social construction of gender, race, class, and sexual identity and the interlocking nature of these forms of oppression. Students will become familiar with women's and gender studies scholarship and attain tools to connect what one learns to one's life and to further academic study. We will pay special attention to how gender and sexuality vary across ethnic, racial, and class lines. Reading assignments cover a wide range of perspectives and attempt to represent both classic writings in women's studies, recent women's studies scholarship and women's own accounts of their life experiences. Writing assignments will emphasize learning by doing. Students will come away with tools for both critical analysis of gender in society and for creating positive social change.

SOCSCI-214 Credits: 3

Gender and Society

Exploration of the social roles that are ascribed to females and males within society and the social behavior expected within the constraints of femininity and masculinity. Exploration of the social processes of creating, maintaining and changing sex/gender roles through the analysis of social institutions and social structures, using both theoretical and experiential perspectives. Students will become familiar with the social forces that help construct personal identity and consciousness and shape our belief systems as gendered beings. Gender will be explored on the personal level, the societal level and the global level, with cross-cultural perspectives, as well as the historical roots of gender, being presented. Sociological theories will be considered as explanatory tools for understanding the impact of gender and its resulting imperative responsibilities and problems.

SOCSCI-217 Credits: 3

Valuing Diversity

Emphasis is placed on common elements among individuals and groups of people. Programs provide sociological lessons dealing with race, social class, age, gender, sexual orientation and the sociology of minorities.

SOCSCI-221 Credits: 3

American National Government and Politics Today

This introductory course in political science is concerned with the American political process

and its institutions: the Constitution, civil rights and freedoms, Congress, the presidency, federal powers and policy-making, the federal judiciary and the election process in American political cultures.

SOCSCI-222 Credits: 3

American State and Local Government

This is a comprehensive course that deals with the organization and functions of state and local governments: state executive, legislative and judicial branches; state constitutions; contemporary intergovernmental relations; differences in regional, rural and urban governments; and the political process at the grassroots level.

SOCSCI-224 Credits: 3

Peoples and Cultures of the World

The course will introduce students to different cultures across the world. It will specifically examine human behaviors and the larger society cross-culturally. The course will be organized thematically, wherein students will explore various cross-cultural applications of social life in one semester. Possible themes of social life include AIDS and society, culture and international development, globalization and society, technology and culture, religion and society, kinship, marriage, art and culture, nationalism, and children and society.

SOCSCI-236 Credits: 3

Juvenile Delinquency

The history, philosophy and theoretical framework of juvenile delinquency and the justice system for juveniles is surveyed. Psychological, sociological, biological and environmental factors influencing juvenile delinquency are studied. Significant statutes and Supreme Court decisions are analyzed, along with significant research in ethnicity and gender.

SOCSCI-242 Credits: 3

African American Social Thought and Culture

This is an introduction to the diversity of African American social thought and culture. The course includes exploration into the ideologies of prominent African American social thinkers and sociologists and the underlying structure and patterns of African American culture.

SOCSCI-246 Credits: 3

Human Sexuality

This course focuses on the biological, psychological and social perspectives of human sexuality. It is a practical course designed to be applied to the everyday business of living, at home, in school and in the workplace.

SOCSCI-250 Credits: 3

Introduction to Philosophy

This course surveys the major figures and doctrines of Western philosophy from classical antiquity to present times. The course also involves discussions of fundamental philosophical questions, especially questions having practical socio-ethical implications.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

SPEECH (Department 810)

SPEECH-201 Credits: 3 **Elements of Speech 1**

The purpose of this course is the development of speaking skills. Stress is placed upon speech content, organization and delivery. Growth in poise and confidence is a major goal of this course.

SPEECH-203 Credits: 3 **Interpersonal Communication**

This course applies the theory and principles of one-to-one communication to personal and professional relationships. Topics include gender, self-awareness, verbal and nonverbal communication, conflict management, assertiveness, and perception.

SPEECH-206 Credits: 3 **Intercultural Communication**

The course offers an opportunity to learn how to identify and appreciate cultural differences in terms of communication styles. Students will improve their ability to communicate, both personally and professionally, with others of different cultures.

SPEECH-209 Credits: 3 **Business and Professional Communication**

This course is an introduction to business and professional communication. The course includes a rough discussion of intrapersonal, interpersonal, and/or sociocultural factors associated with individual behavior, collective action, or societal development. The course also aims to enhance students' ability to identify, apply and effectively communicate methodologies designed for conducting an inquiry into human behavior, collective action, societies, or cultures. Several practical elements are built into the course based on foregoing considerations (e.g., impromptu speaking, career interview and presentation). Prerequisite(s): Complete SPEECH-203.

SPEECH-210 Credits: 3 **Conflict and Communication**

The emphasis of this course is on developing communication behaviors that productively manage conflict; it is structured to integrate communication theory with practical application. Through readings, lectures, sample conflict cases and interviews, as well as through in-class discussion and exercises, this course will address both intrapersonal and interpersonal conflicts that occur in diverse settings, examine the sources of these conflicts, and analyze the factors that influence how we identify, define, manage and defuse these conflicts.

SPEECH-211 Credits: 3 **Introduction to Argumentation and Debate**

This course is designed to provide an introduction to the principles of argumentation, debate, and logic. Students will examine different models of argument, learn how to structure and support arguments, and practice those skills in individual speaking, partnered, and group contexts.

SPEECH-212 Credits: 3 **Introduction to Theater**

This course examines the history and development of theater in its various forms. Primarily the course examines the technical and artistic elements of theater to provide students with a general understanding and appreciation of this art form. Students attend and critique several theater productions.

SURGT – Surgical Technology (Department 512)

SURGT-125 Credits: 4 **Introduction to Surgical Technology**

This course provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced. Preoperative patient care concepts are simulated. Lab practice is included. Prerequisite(s): Prerequisite(s): Complete HEALTH-101 and BIOSCI-177 or BIOSCI-201. Must be admitted to the Surgical Technologist program (10-512-1) program. Completion of or currently enrolled in BIOSCI-197.

SURGT-126 Credits: 4 **Surgical Tech Fundamentals 1**

This course focuses on preparing the patient and operating room for surgery. Principles of sterile technique are emphasized as the student moves into the scrub role. Lab practice is included. Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Complete SURGT-125. Completion of or currently enrolled in SURGT-127.

SURGT-127 Credits: 2 **Exploring Surgical Issues**

This course explores a variety of issues related to surgical technology. Emphasis is placed on becoming a professional member of the surgical team. Prerequisite(s): Must be admitted to Surgical Technologist program (10-512-1). Completion of or currently enrolled in SURGT-125.

SURGT-128 Credits: 4 **Surgical Tech Fundamentals 2**

This course focuses on enhancing surgical technology skills while functioning as a sterile team member. Lab and/or clinical practice is included. Prerequisite(s): Complete HEALTH-101 (minimum grade C), SURGT-126, and SURGT-127. Completion of or currently enrolled in SURGT-129.

SURGT-129 Credits: 2 **Surgical Pharmacology**

This course is a basic study of drug classifications, care and handling of drugs and solutions, application of mathematical principles in dosage calculations, terminology related to pharmacology, anesthesia, and drugs used in surgery. Prerequisite(s): Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Complete BIOSCI-197 with (minimum grade of C+). Completion of or currently enrolled in SURGT-125 and either BIOSCI-179 or BIOSCI-202.

SURGT-130 Credits: 2 **Surgical Skills Application**

This course provides a transition from the academic to the clinical setting. Learners integrate the surgical technologist skills as they apply to various surgical procedures. Prerequisite(s): Must be admitted to the Surgical Technologist program (10-512-1). Completion of or currently enrolled in SURGT-128.

SURGT-131 Credits: 4 **Surgical Interventions 1**

Provides the foundational knowledge of surgical core and specialty procedure. Examines the pathophysiology, diagnostic interventions, health sciences and surgical techniques for a variety of procedures. Prerequisite(s): Complete SURGT-128 and SURGT-130. Completion of or currently enrolled in SURGT-132.

SURGT-132 Credits: 3 **Surgical Technology Clinical 1**

Students apply basic surgical theories, principles and procedural techniques in the operating room. They begin to function as team members under the guidance of the instructor and authorized clinical personnel. Prerequisite(s): Complete SURGT-128 and SURGT-130. Completion of or currently enrolled in SURGT-140.

SURGT-133 Credits: 3 **Surgical Technology Clinical 2**

Further experience in the clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. Prerequisite(s): Complete SURGT-132. Completion of or currently enrolled in SURGT-131.

SURGT-135 Credits: 3 **Surgical Technology Clinical 3**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. Prerequisite(s): Complete SURGT-131 and SURGT-133. Completion of or currently enrolled in SURGT-142.

SURGT-136 Credits: 3 **Surgical Technology Clinical 4**

During this clinical course the student will function relatively independently. Serves as a transition from a student perspective to an employee by utilizing advanced skills for an entry-level surgical technologist. Prerequisite(s): Complete SURGT-135. Completion of or currently enrolled in SURGT-142.

SURGT-142 Credits: 4 **Surgical Interventions II**

Expands knowledge of core and specialty surgical procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques. Prerequisite(s): Complete SURGT-131 and SURGT-133. Completion of or currently enrolled in SURGT-135.

TDMKG – TV

TDMKG – Tool and Die Making (Department 439)

TDMKG-360 Credits: 1 Basic Die Making Technology

This course introduces students to the theories necessary to properly construct basic stamping and forming dies. Part terminology and function are integrated into the format via lecture and discussion.

TDMKG-361 Credits: 1 Advanced Die Making Technology

This course is a continuation of the previous course, Basic Die Making Technology. This course explores the theories necessary for proper die construction of more advanced progressive, inverted and compound dies. Prerequisite(s): Complete TDMKG-360.

TDMKG-362 Credits: 1 Cavity Die Technology

This course introduces the student to the theories involved in proper mold construction in the three major areas of mold building: plastics (thermoset and thermoplastic), diecasting and rubber molds.

TDMKG-366 Credits: 1 CNC Programming 2

This course instructs students in the techniques necessary for proper construction and transmission of a computerized numerical control program via a computer-aided graphics system as it is used in the field of tool and die making. Prerequisite(s): Complete MACHTL-304.

TDMKG-367 Credits: 1 Basic CAD CAM

Students are introduced to the basic components of a CAD/CAM system, drawing creation and editing using CAD, layering and drawing management, CAD and CAM system interface, file transfer and tool path creation using CAD files on a CAM system. Prerequisite(s): Complete TDMKG-366.

TDMKG-371 Credits: 4 Stamp Die Making 1

Skills and knowledge are developed through the production of compound die components. Die clearance, alignment, and component function are taught through practical application. Conversational CNC programming skills are introduced and developed. Prerequisite(s): Complete MACHTL-301, MACHTL-304, MACHTL-310, MACHTL-320, MACHTL-322 and MACHTL-325.

TDMKG-372 Credits: 4 Stamping Die Making 2

This course is a continuation of Stamping Die Making 1 with the students mounting their compound die. Students are also required to set up the die and do a trial run in an OBI press. Components for a progressive die are machined while continuing to develop skills in CNC machining, conventional machining, and surface grinding. Prerequisite(s): Complete TDMKG-371.

TDMKG-373 Credits: 4 Stamping Die Making 3

Students' knowledge increases as they complete a progressive die. They learn advanced surface grinding along with wire EDM programming, setup, and operation. Die mounting skills are enhanced as they align and mount pierce, blank and cutoff punches. Prerequisite(s): Complete TDMKG-372.

TDMKG-381 Credits: 4 Moldmaking 1

Skills and knowledge are enhanced through the machining of various mold components. A variety of conventional and CNC machine tools are utilized with instruction that focuses on tolerance, fitting, and final assembly. Setup and operation of the RAM EDM is introduced. Prerequisite(s): Complete TDMKG-373.

TDMKG-382 Credits: 4 Moldmaking 2

This course is a continuation of Moldmaking 1 with a focus on CNC VMC programming, setup, and operation, as well as mold polishing. Mold components will be produced utilizing conversational CNC mills and surfacing grinding. Mold component relationship and function are stressed. As with other moldmaking courses, the student must trial run the completed mold. Prerequisite(s): Complete TDMKG-381.

TDMKG-383 Credits: 4 Moldmaking 3

Students will expand upon the moldmaking knowledge developed in the first two courses as they develop CNC programs and construct a mold that will run in a master unit die. Essential moldmaking practices are further developed as students produce all of the mold components required for their capstone project. Prerequisite(s): Complete TDMKG-382.

TRCKDR – Truck Driving (Department 458)

TRCKDR-345 Credits: 5 Truck Driving 1

This course covers the general rules and laws pertaining to the CDL and operation of a commercial motor vehicle (CMV) including transporting hazardous materials (HazMat). Vehicle systems, maintenance and servicing issues are also explained. In this course, students learn how to properly inspect a CMV and how to operate one safely. Basic operations, specific to tractor semi-trailer, will be discussed and performed including fundamentals of the defensive driving techniques. Prerequisite(s): Must be admitted to the Truck Driving program (30-458-1) in accordance with the program admission process.

TRCKDR-346 Credits: 5 Truck Driving 2

This course further prepares students to obtain a commercial driver's license and safely perform professional driver's duties as required in the transportation industry. Course focuses on improving driving skills and expanding

defensive driving abilities in various situations and different environments. Additionally, this course covers several non-driving related topics. During this course, students must demonstrate proficiency as described by FMCSA Entry-Level Driver Training (ELDT) rule and must successfully obtain a commercial driver's license to complete this course. Prerequisite(s): Complete TRCKDR-345 course within the last six months.

TV – Television and Video Production (Department 701)

TV-101 Credits: 4 TV/Video Studio Production Techniques

This course is a survey of the principles of studio and field television operations, including camera techniques, lighting, sound, control rooms, settings, scenery, properties, floor directing and scripting as applied to operations within the television industry. Prerequisite(s): Completion of or currently enrolled in DCC-150 and TV-181.

TV-104 Credits: 2 TV Studio/Field Set Design

Students learn techniques in planning and creating appropriate settings for digital visual capture. Utilizing Milwaukee PBS studios, theaters and typical location scenarios, the students will understand how to create a proper visual environment for video. Prerequisite(s): Completion of or currently enrolled in TV-101. Must be admitted to the TV and Video Production (10-701-1) or Digital Content Creation (10-701-3) or TV Field Assistant (31-701-1) programs.

TV-105 Credits: 4 TV/Video Field Production Techniques

To provide the student with a general understanding of equipment and techniques used in field-based video and television and their functions in visual communications and broadcasting. To prepare the student for general field, on-location and other remote production assignments. Prerequisite(s): Complete TV-101. Completion of or currently enrolled in TV-112.

TV-106 Credits: 2 Grip/Gaffing and Camera Support

This course explores and provides hands-on experience in the craft of field lighting. Students will focus on the principles, best practices and equipment used for successfully lighting non-studio field environments for either broadcast or digital video delivery. This includes understanding, choosing and operating portable field lighting kits, becoming familiar with grip and gaffer roles on a set and with field camera support tools, as well as learning how to troubleshoot/optimize lighting in unpredictable environments. Students will practice lighting in a variety of situations, producing projects and participating in field shoots designed to showcase solid, purposeful lighting. Prerequisite(s): Complete TV-105. Completion of or currently enrolled in TV-142.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

TV-107 Credits: 3

Script Writing for Visual Media

Basic concepts of script writing for television, radio and film are presented. Students are encouraged to think in visual terms and to utilize the unique properties of the medium to communicate these visual impressions. Prerequisite(s): Must be admitted to the Television and Video Production program (10-701-10) or Digital Content Creation program (10-701-3). Completion of or currently enrolled in TV-105.

TV-108 Credits: 2

TV Studio Lighting Techniques

Students learn the basic principles and practical applications of television lighting techniques for in-studio production situations. Attention is given to television production enhancement through lighting, understanding the common tools of studio lighting, familiarization with tools, fixtures and lighting boards, the use of settings, and their design. Prerequisite(s): Must be admitted to Television and Video Production (10-701-1) or Digital Content Creation (10-701-3) programs. Completion of or currently enrolled in TV-101.

TV-109 Credits: 2

Techniques for Field Audio Acquisition

This course focuses on the principles, best practices and equipment used for successfully acquiring pristine, effective audio for video/TV/digital media production. This includes understanding, choosing and operating field audio acquisition equipment (microphones, booms, mixers, etc.) as well as learning how to troubleshoot and optimize audio in the unpredictable environment of the field. Students will create their own mixes and produce projects designed to showcase solid, impactful sound. Prerequisite(s): Complete TV-105. Must be admitted to the Television and Video Production (10-701-1) or Digital Content Creation (10-701-3) programs. Completion of or currently enrolled in TV-142.

TV-110 Credits: 4

Advanced Production Techniques

Training is provided in the responsibilities of the television producer/director in planning and producing television shows. These relate to program formats, advanced production techniques, costs, technical facilities, crew management and talent selection. Prerequisite(s): Complete TV-105, TV-112 and TV-121. Completion of or currently enrolled in TV-119.

TV-112 Credits: 3

Storytelling Via Post-Production

Students are introduced to editing concepts and techniques and are taught to assess and assemble visual sequences into completed segments. Training is provided in pulse-count and time code editing, backspace and computer-based systems, external triggering, list management and simple programming. Prerequisite(s): Completion of or currently enrolled in TV-105.

TV-115 Credits: 4

Advanced Broadcast Program Production

All elements of television production are combined to enable students to utilize a wide range of broadcast equipment in the production of both open and closed-circuit television materials. Emphasis is also placed on applied media aesthetics. Prerequisite(s): Complete TV-110 and TV-119.

TV-119 Credits: 3

Operational Broadcast Engineering

This course is a study of basic television systems and equipment embracing the techniques of camera video operations (registration, color balancing, maintenance, video level control), audio and videotape systems, switchers, audio consoles, microphones, character generators and time-code editors. Prerequisite(s): Completion of or currently enrolled in TV-110.

TV-121 Credits: 3

TV and Video Production Workshop 1

Students are assigned to floor crew positions on WMVS/WMVT programs so that they may obtain "on-the-air" experience in areas where limited TV experience is required. Prerequisite(s): Completion of or currently enrolled in TV-105.

TV-122 Credits: 3

TV and Video Production Workshop 2

Students are assigned to responsible crew positions such as floor director, property supervisor, teleprompter operator, microphone boom operator and camera operator on WMVS/WMVT productions. Each student has the opportunity for "on-the-air" experience. Prerequisite(s): Complete TV-121.

TV-123 Credits: 3

TV and Video Production Co-Op 1

Advanced practical video experience may be obtained through positions directly related to the student's career goals. Students may enhance their educational skills through supervised work experience in conjunction with the local broadcast, cable and/or corporate video community. Prerequisite(s): Completion of or currently enrolled in TV-121.

TV-124 Credits: 3

TV and Video Production Co-Op 2

Additional video work experience may be obtained through entry-level positions that lead to advancement and provide experiences in relevant work situations. Prerequisite(s): Complete TV-123 or instructor waiver.

TV-132 Credits: 3

Advanced Nonlinear Editing

This course is designed to build upon the techniques learned in TV-142 and to provide students with hands-on experience in high-end, nonlinear edit systems utilized in both online and finishing situations. Techniques and practice include system overview, advanced editing, color grading and effects, storage and MAM

management techniques, advanced project management, advanced practice in storytelling via editing and self, client, and system diagnostics. Prerequisite(s): Complete TV-142.

TV-142 Credits: 3

Intermediate Nonlinear Video Editing

This course will focus on intermediate techniques in editing video footage in a nonlinear world and adapting that output for multiversioned purposes. Students will learn a new NLE platform and more advanced digital editing techniques and skills. Integration of Milwaukee PBS station facilities, using Avid Media Composer, Mass and shared storage systems, Media Access Management and remote offline editing via Avid Media Central, plus preparing and outputting finished sequences for delivery, will be emphasized. Prerequisite(s): Complete TV-112.

TV-144 Credits: 3

Graphic Design for Video Integration

This course will focus on creating graphics for use in broadcast, as well as other video applications, from tape to DVD to web. Integration of station facilities, using FX/DEKO platform for TV graphics techniques, plus understanding how to use popular software, such as Photoshop, in creating video graphics. Prerequisite(s): Complete WEBDEV-102.

TV-149 Credits: 3

MCA CO-OP 1

Advanced practical media experience may be obtained through positions directly related to student career goals. Students may enhance their educational skills through projects and assignments in collaboration with MATC's Television and Video Production students. MCA Co-op 1 focuses on integration of students in visual and audio related degree programs into comparable professional departments and projects. Prerequisite(s): Complete TV-123 or TV-124 or instructor consent.

TV-160 Credits: 1

Introduction to Operational Engineering

This course is a survey of basic television systems and equipment embracing the technologies and techniques of video operations associated with broadcast stations, studio and remote productions, and professional TV approaches to transmission of audio and video content. It introduces the student to engineering concepts associated with video cameras, AV files, signal flow and operational understanding, incorporating broadcast engineering approaches. (Registration, color balancing, maintenance, video level control), audio and videotape systems, switchers, audio consoles, microphones, character generators and timecode editors. Prerequisite(s): Complete TV-101. Must be admitted to the TV and Video Production program (10-701-1). Completion of or currently enrolled in TV-105 and TV-121.

TV – WELD

TV-161 Credits: 2

Intermediate Operational Engineering

This course follows TV-160 as the hands-on complement to operation broadcast engineering. It builds on the basics of TV engineering for production and creative content professionals, and introduces the tools, techniques and processes associated with a variety of technical operations at a broadcast facility. Students utilize the production and engineering systems employed at Milwaukee PBS studios and in remote trucks with training designed to familiarize the student with tools they will encounter and operate, troubleshoot, and maintain at a large television station. Prerequisite(s): Complete TV-160. Completion of or currently enrolled in TV-110.

TV-181 Credits: 1

Video in Society

This orientation course is designed to familiarize the entering student with some of the employment and career opportunities and skills that he or she would acquire through the Television and Video Production program. Prerequisite(s): Completion of or currently enrolled in TV-101 and DCC-150.

WEBDEV – Web Development/Commercial Art (Department 201)

WEBDEV-102 Credits: 3

Introduction to Digital Media

An introductory course, students work with software used in the development of media projects. An overview of graphics software, such as Photoshop and Illustrator, are presented. Project-based assignments provide a basic understanding of the interactive media production process.

WEBDEV-114 Credits: 3

Web Development With HTML/CSS

Students develop HTML5 and CSS3 skills needed for the development of functional websites. Emphasis is placed on writing code, designing with Cascading Style Sheets, file management, debugging and publishing of websites. The final project is a complete website that students will develop by writing the necessary HTML and CSS code.

WEBDEV-119 Credits: 3

Web Design Overview

This course focuses on web design trends and best practices. Students are introduced to the fundamental concepts as well as the technical, creative and aesthetic aspects of web design and development. Some of these concepts include project research, information architecture, web analytics, responsive web design, web typography, graphic file formats, frameworks and content management systems. Students are encouraged to collect and utilize online resources that parallel industry standards.

WEBDEV-120 Credits: 3

Audio and Video Production for the Web

This course provides an overview of audio and video production techniques for developing media for the web. Deployment for YouTube as well as HTML5 audio and video controls will be covered.

WEBDEV-123 Credits: 3

Interactive Design

This course will explore the core design components that make up the majority of interactive visual media. Focus will be placed on the process of user-centered design, the issues of usability and the methods for evaluating various interactive interfaces. Students will be expected to participate in critiques. Prerequisite(s): Complete WEBDEV-102.

WEBDEV-124 Credits: 3

Database Web Design With PHP and MySQL

Students will learn the development techniques of creating a database-driven website. Concepts will be taught in PHP and MySQL to communicate with the database and display dynamic information. Publishing a website with database capabilities is the goal of this course. Prerequisite(s): Complete WEBDEV-128 or WEBDEV-114, and WEBDEV-108 or ITDEV-117.

WEBDEV-132 Credits: 3

Rich Media for the Web

This course provides students the knowledge and hands-on practice needed to integrate rich media solutions into websites. This course focuses on web marketing principles and effective integration of animation, sound and video to implement advertising solutions. The course utilizes WYSIWYG software as well as introduces development concepts to create animation and interactivity for the web. Prerequisite(s): Completion of or currently enrolled in WEBDEV-119, WEBDEV-114 and WEBDEV-123.

WEBDEV-133 Credits: 3

Content Management Systems

Students learn web development concepts as they apply to content management systems (CMS). Students will develop websites using a variety of open-source CMS tools such as WordPress and Joomla. The final project is a website that students will develop using an open-source CMS tool. Prerequisite(s): Complete WEBDEV-114.

WEBDEV-134 Credits: 3

Responsive Web Design

Students learn responsive web design concepts for adaptive display on mobile devices, such as smartphones and tablets, as well as traditional monitors with various screen resolutions. Students learn about HTML5 and CSS3 media queries. Some topics include popular responsive frameworks such as Bootstrap and Foundation. The final project is the development of a complete responsive website. Prerequisite(s): Complete WEBDEV-114, WEBDEV-119 and WEBDEV-123.

WEBDEV-135 Credits: 3

User Experience for the Web

This course provides a conceptual and practical overview of the processes of creating a user centered design by focusing on the research, content strategy and design phases specific to implementing a user-friendly solution for web design. Students will engage in the research phase to understand business and user needs, goals and tasks by utilizing various research methods to develop a solid content strategy and interactive prototype to deliver a compelling user experience.

WEBDEV-140 Credits: 3

Web Dev With JavaScript/jQuery

Students learn JavaScript and how to connect to the jQuery library to develop more interactive websites. Students will learn about functions, event handlers, decision statements and other advanced coding techniques. Some topics include image carousels, lightboxes and other dynamic features. The final project is a website that students will develop incorporating JavaScript and jQuery. Prerequisite(s): Complete WEBDEV-114.

WEBDEV-143 Credits: 3

User Experience – UE 2.0

This course will focus on user experience (UE) in determining the level of successful communication and retention realized by the consumer and client; whether it be web interface, exhibit design, 3D environment, mobile platform, etc.

WEBDEV-198 Credits: 1

Internship

This course prepares students to work in their field of study by giving them practical real-job experiences. The fundamentals of resume writing, interviewing, networking and job search techniques are discussed. Students are expected to search, interview and obtain an internship during this time. Prerequisite(s): Complete WEBDEV-134 or WEBDEV-126, and INTRN-796.

WEBDEV-199 Credits: 3

Portfolio

Students prepare to market themselves in the workplace by creating a professional web-based portfolio. Students are expected to research and implement online self-promotional best practices. Ideally this class is taken during the student's final semester. Participation in an annual portfolio exhibit is required. Some independent research is expected during this process. Prerequisite(s): Complete WEBDEV-133, WEBDEV-134 or WEBDEV-126. Completion of or currently enrolled in WEBDEV-140.

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

WELD – Welding (Department 442)

WELD-300 Credits: 1 **Fundamentals of Arc Welding**

The student develops fundamental knowledge and skill in the safe use of shielded metal arc welding equipment. Emphasis is on consistent bead development in the flat position with several different types of commonly used electrodes.

WELD-301 Credits: 2 **General Arc Welding**

This course involves welding in multiple positions on carbon steel using E6013, E6010 and E701B electrodes. Emphasis is on following written directions for exercises and learning to visually assess your performance to AWS standards. Prerequisite(s): Complete WELD-300.

WELD-302 Credits: 2 **Specialized Arc Welding**

Emphasis is placed on joint preparation and welding procedures. Proper techniques of using shielded metal arc alloyed electrodes are presented. In addition, preparation, treating and evaluation of coupons which pertain to structural codes are covered. Prerequisite(s): Complete WELD-301.

WELD-305 Credits: 1 **Fundamentals of Oxyfuel Welding**

Students develop a fundamental understanding and skill in the use of oxyacetylene welding equipment with an emphasis on safety. Basic joint configurations in the flat and horizontal position and oxyfuel torch cutting will be used.

WELD-306 Credits: 2 **Fundamentals of Gas Tungsten Arc Welding (TIG)**

The purpose of this course is to give students a fundamental knowledge of the gas tungsten arc welding process. The basic principles of equipment setup and operation are taught. Instruction is provided on the proper techniques of welding mild steel sheet metal in and out of position.

WELD-307 Credits: 2 **Advanced Gas Tungsten Arc Welding (TIG)**

This course is designed to give students instruction in the art of TIG welding plate and pipe. Proper equipment operation and setup for nonferrous alloys such as aluminum are also taught. Students also weld stainless steel sheet metal in and out of position. Prerequisite(s): Complete WELD-306.

WELD-313 Credits: 5 **Shielded Metal ARC Welding**

Provides industrial application of shielded metal arc welding in all positions on carbon steel. Provides industrial application of thermal cutting on carbon steel. Students apply safety according to industry standards and ANSI A49.1 Safety in

Welding and Cutting. This course is designed in accordance with AWS SENSE national standard: AWS ANSI QC-10:2004 Specification for Qualification and Registration of Level 1-Entry Level Welders. SMAW is one of the four areas of welding concentration in the one-year technical diploma program.

WELD-314 Credits: 5 **Gas Tungsten ARC Welding**

Provides basic skills in oxyfuel welding, brazing and cutting on carbon steel. Provides industrial application of gas tungsten arc welding in all positions on carbon steel, stainless steel, and aluminum in a lab setting. Students apply safety according to industry and ANSI Z49.1 Safety in Welding and Cutting. This course is designed in accordance with AWS SENSE national standard: AWS/ANSI QC-10:2004 Specification for Qualification and Registration of Level 1-Entry Level Welders. GTAW and oxyfuel welding are one of four areas of welding concentration in the one-year technical diploma program.

WELD-315 Credits: 5 **Gas Metal ARC Welding Practice**

Provides industrial application of gas metal arc welding in all positions on carbon steel. Provides industrial application of flux cored arc welding in all positions on carbon steel. Students apply safety according to industry standards and ANSI A49.1 Safety in Welding and Cutting. This course is designed in accordance with AWS SENSE national standard AWS/ANSI QC-10:2004 "Specification for Qualification and Registration of Level 1-Entry Level Welders." GMAW and FCAW are two of the four areas of welding concentration in the one-year technical diploma program.

WELD-316 Credits: 5 **Layout and Setup Practices**

Provides a focus on the development of layout and basic fabrication skills through a sequence of industrial and AWS SESE weldments that involve the use of GMAW, GTAW, FCAW and SMAW. Students will learn to utilize industrial equipment, power tools, hand tools and layout tools. Students will apply advanced welding skills. Students apply safety according to industrial standards and ANSI A49.1 Safety in Welding and Cutting. This course is designed in accordance with AWS SENSE national standard AWS/ANSI QC-10:2004 Specification for Qualification and Registration of Level 1-Entry Level Welders. Layout and Setup Practices is the final area of concentration in the one-year welding diploma program.

WELD-325 Credits: 5 **Basic Heavy Plate Processes**

Students who complete this basic heavy plate welding course along with Advanced Heavy Plate (WELD-329) are eligible for entry-level employment in some of the leading heavy plate employers in the MATC District. Emphasis will be FCAW with 1/16th and 3/32 diameter electrodes. Air carbon arc cutting and gouging

will also be addressed. Employment is not guaranteed to anyone — you must prove your welding skills and core abilities such as showing up every day and on time. Most employers engage in strict preemployment drug testing. Prerequisite(s): WELD-327 or WELD-315.

WELD-326 Credits: 1 **Fundamentals of Semi-Automatic Wire Welding**

The student develops fundamental knowledge and skill in the safe use of semi-automatic wire welding equipment. Topics discussed include joint details and distortion control, GMAW weld faults, welding, metallurgy, and weld symbol interpretation.

WELD-327 Credits: 2 **Specialized Semi-Automatic Wire Welding**

Welding skills are developed through the use of the semi-automatic solid and cored wire welding processes such as gas metal arc, flux cored and submerged arc. Prerequisite(s): Complete WELD-326.

WELD-328 Credits: 2 **Flux Core Arc Welding**

This is a continuation of the concepts and skills in wire welding learned in WELD-327. Emphasis is on out-of-position welding on common joints. Prerequisite(s): Complete WELD-327.

WELD-329 Credits: 5 **Advanced Heavy Plate**

This course is a continuation of WELD-325 Basic Heavy Plate Processes. There is an emphasis on advanced welding techniques using 1/16th and 3/32nd electrodes with FCAW. Students will complete full penetration welds utilizing carbon arc gouging and finish grinding techniques. The training will mimic practical situations one would encounter working in the heavy plate industry today. Employment is not guaranteed to anyone upon completion. You must prove your welding skills and core abilities such as showing up every day and on time. Most employers engage in strict drug testing that can go back as far as six months. Prerequisite(s): Complete WELD-325.

WELD-340 Credits: 2 **Welding for Auto Body Technicians**

Skills for the auto body shop are stressed during instruction on the use of the oxyacetylene torch and arc and wire welding equipment to complete bead, butt, lap and fillet welds.

WELD-350 Credits: 1 **GTAW Processes**

Safe working habits in handling oxyfuel and gas tungsten arc equipment are developed. The principles for applying oxyfuel on different types and sizes of materials in various joint configurations are stressed. Commercial production, handling and storage of compressed gases that are used in GTA, and oxyfuel processes are discussed. Introduction to metallurgy is given.

WELD – WELDTC

WELD-351 Credits: 1

Shielded Metal Arc Welding Processes

Instruction is offered in the principles of shielded metal arc welding as applied to different types and thicknesses of metals in various joint configurations. The principles of various testing methods for assuring weld quality are also presented, along with the proper techniques and applications of the SMAW process. Introduction to the weldability of metals is given.

WELD-352 Credits: 1

Gas-Shielded Arc Welding Processes

The principles and theory of the semi-automatic wire welding processes as applied to different types and thicknesses of metals in various joint configurations are emphasized. Various testing methods used for assuring weld quality are covered.

WELD-354 Credits: 2

Layout and Print Reading Practices

Develops advanced skills in print reading through utilization of complex industrial prints that feature AWS welding symbols, ISO welding symbols, American Standard dimensions, SI Metric dimensions, isometric drawings, section drawings, material lists and assembly drawings. Students get hands-on experience working with prints related to the work environment for welding. Students will learn to create drawings by utilizing dividers, square, scales and protractors from existing drawings, written

directions and sample mock-ups. The skills in this course transfer to the Layout and Setup course in the lab. Prerequisite(s): Complete WELD-360 or WELD-361 and WELD-362 and WELD-380.

WELD-360 Credits: 2

Blueprint Reading for Welders

Develops fundamental skills in print reading through the use of basic lines and views, basic sketching, dimensioning techniques, title block, notes, sections and details and types of prints. Emphasis is placed on orthographic projection and isometric views to help the learner develop the visual relationship between an object and a print in the first weeks of the course. Students get hands-on experience with prints for analysis of dimensions, welding symbols, material list, parts of a print and all the conventions used in the workplace. Students will learn basic weld joints, welding symbols and knowledge of AWS standards for welding symbols.

WELD-380 Credits: 1

Welding Trades Mathematics

Provides a focus on mathematics used in industry including fractions, decimals, percent, tolerance, various measurements, the metric system and geometry. Students apply contextual word problems while learning numeric functions. Basic mathematical processes and use of a calculator should be known prior to taking this course.

WELDTC – Welding Technology (Department 621)

WELDTC-101 Credits: 2

Welding Theory 1

This course covers the theory and application of the gas tungsten arc welding and oxyfuel welding and cutting processes. The major safety standard, ANSI Z49.1 Safety Welding and Cutting, is studied in detail.

WELDTC-102 Credits: 3

Welding Theory 2

This course covers theory and process control of the major consumable arc welding processes: SMAW, GMAW, FCAW and SAW. Computer-based information systems are used to identify, research and write four technical papers in the lab portion of the course.

WELDTC-105 Credits: 3

Weldability of Materials

This course examines the characteristics of weldable materials and their properties that affect weldability: “the capacity of a material to be welded under the imposed fabrication conditions into a specific, suitably designed structure and to perform satisfactorily in the intended service” (AWS A3.0). Students gain the theoretical and technical knowledge needed to research and develop preliminary welding

DEGREE/DIPLOMA/CERTIFICATE COURSE DESCRIPTIONS

procedures for joining the major weldable materials. Prerequisite(s): Completion of or currently enrolled in WELDTTC-102.

WELDTTC-107 Credits: 3

Fabrication Graphics

The skills needed to interpret and apply the information conveyed by conventional and computer-generated fabrication blueprints are developed. Student receives hands-on experience in operating a CAD system to generate and manipulate fabrication databases.

WELDTTC-111 Credits: 4

Welding Practice 1

The purpose of this course is to give students hands-on experience in the setup and operation of welding with the gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW) processes. Students will complete various lab exercises demonstrating the ability to use both processes to perform welds that meet AWS D1.3 welding code for materials under 1/8-inch in thickness. Upon completion of this course, students will be able to understand a written welding procedure, read weld symbols, properly set up welding equipment and perform welds in all positions on various light gauge materials. Prerequisite(s): Completion of or currently enrolled in WELDTTC-101.

WELDTTC-112 Credits: 4

Welding Practice 2

The purpose of this course is to give students hands-on experience in the setup and operation of shielded metal arc, gas metal arc and flux-cored arc processes to weld the basic joints in all positions to commercial and code quality standards. Prerequisite(s): Completion of or currently enrolled in WELDTTC-102.

WELDTTC-113 Credits: 3

Welding Techniques 1

The purpose of this course is to give the theoretical and technical knowledge needed to develop, write and qualify welding procedures and welders to written specifications and codes and to pass the National Certified Welding Inspector's Exam. Prerequisite(s): Complete WELDTTC-102.

WELDTTC-114 Credits: 3

Welding Techniques 2

This course gives students hands-on experience in developing, writing and testing welding procedures to the major welding codes. Students also test and qualify welders to the major codes. Prerequisite(s): Complete WELDTTC-102.

WELDTTC-135 Credits: 4

Automated Welding Processes

Students gain hands-on experience in fixturing, setting up, troubleshooting, programming and operating automated welding equipment including robots and computer-controlled plasma-cutting systems. Prerequisite(s): Complete WELDTTC-112. Completion of or currently enrolled in WELDTTC-140.

WELDTTC-140 Credits: 4

Manufacturing Applications for Robots

Robots used in manufacturing are studied. Students receive hands-on experience in programming a tool-manipulating robot. Basic mechanisms, hydraulics and pneumatics are covered.

WELDTTC-181 Credits: 1

Welding Technology Orientation

This course is designed to assist the students in becoming acquainted with the educational and vocational opportunities at MATC and to help them make satisfactory adjustments to their school environment. It also gives them an overview of technical careers in the welding field.

COMMUNITY EDUCATION

Whether you are a working adult interested in completing high school or learning English, MATC has programs that can help. The college offers Adult High School, GED and HSED, and other options. In addition, students can learn English at community-based organizations conveniently located throughout the district. In the following pages, learn about these programs and the courses available.

ADULT HIGH SCHOOL

Earn a High School Diploma at MATC

If you are age 16 or older and want to earn your high school diploma, MATC's Adult High School is the place. Students under the age of 18 must attend a school district that has a partnership agreement or contract with MATC. Our comprehensive high school is accredited by Cognia (9115 Westside Parkway, Alpharetta, GA 30009; 1-888-413-3669), and offers a full range of academic and student support services. Courses meet face-to-face on the Downtown Milwaukee Campus and are offered online.

Students with no previous high school experience complete 46 credits* of coursework. Students who have earned credits at other schools get advanced standing and complete the remaining credits needed for graduation. At least six credits must be taken at MATC.

*Each Adult High School credit is equal to one-half of a Carnegie Unit, which is the credit system most commonly used by U.S. high schools. Classes are 76-80 hours per quarter or semester.

See matc.edu and search Adult High School for information on getting started.

ADDITIONAL MATC ADULT HIGH SCHOOL OPPORTUNITIES FOR TEENS AND ADULTS

Credit Recovery

High school students ages 16 and older may register for classes to make up high school credits.

College Prerequisites

High school graduates who need high school credits in biology, algebra, geometry or chemistry as prerequisites for college programs can take these courses through Adult High School.

Emerging Scholars Program

Through this program, students age 16 years or older who meet certain requirements may take classes leading to a high school diploma at MATC.

For more information about the Adult High School, email communityed@matc.edu.

Adult High School Credits

Communications <i>One course must be a writing course</i>	8
Mathematics <i>Two credits must be in algebra</i>	6
Social Studies <i>Two credits must be in American history/government</i>	6
Science	6
Computers	1
Career Education	1
Technical/Occupation	1
Success Strategies	1
Financial Literacy	1
Physical Education/Health	3
Electives	12
TOTAL CREDITS	46

GED AND HSED

If you need preparation before taking the General Educational Development (GED) Exams, MATC offers classes to help you learn what you need to know.

Classes are offered at MATC campuses and at community-based organizations (CBOs).

See matc.edu and search **GED and HSED** for details on getting started, or email communityed@matc.edu.

For GED information in Spanish, call 414-302-2683.

To earn a High School Equivalency Diploma (HSED), you will complete all of the steps for the GED certificate, plus:

- Complete a health requirement by either passing a test, completing half of a credit in health while in high school, or completing an MATC Adult High School health course.
- Complete MATC's Employability Skills course.

There are more methods of earning an HSED too. Email communityed@matc.edu for more information.

MATC HSED 5.09 – HIGH SCHOOL COMPLETION OPTION PROGRAM

This competency-based high school completion option is designed to be completed in one to two semesters and awards a Wisconsin HSED. In addition, students have the

opportunity to waive courses based on prior learning (such as test-out options and high school credits).

Students will demonstrate mastery of competencies identified by the Wisconsin Technical College System in the areas of communication, social studies, science, math, health, civics, and employability along with six additional competencies added by MATC designed to prepare students for college or the workforce.

HSED 5.09 program requirements:

- At least age 18½ years old
- Good attendance history
- Completion of the TABE 11/12 test with a scale score of 519 in reading
- Need for an alternative to the GED 2014 test
- Face-to-face interview

For more information, contact Holly Thielen, West Allis Campus: thielenh@matc.edu, 414-456-5399.

For information about the HSED 5.09 in Spanish, email barillbl@matc.edu.

BRIDGE TO PATHWAY PROGRAMS

Bridge programs are designed for students who are enrolled in Adult High School or GED/HSED courses. Students will take college credit courses leading to a college credential while enrolled in Adult High School, GED or HSED programs. Students may choose from several Bridge programs. See matc.edu and search Bridge to Pathway for current programs.

BASIC SKILLS

Basic Skills instruction is geared to those who do not have a high school diploma. Instruction levels range from grades 0-12. Courses are useful for those who plan to enter a college program at MATC, pass the GED test, or enter MATC's Adult High School program to earn a high school diploma.

Basic Skills subjects include reading, mathematics, science and writing. Courses are offered at MATC campuses and at community-based organizations (CBOs) throughout metro Milwaukee. Spanish-language courses are offered at some locations. For information, email veleza@matc.edu or call 414-297-7923.

ENGLISH AS A SECOND LANGUAGE

Learn English: English as a Second Language (ESL)/English Language Learners (ELL) programs

MATC's programs help students learn English so they may function more effectively at work, at home and in the community. The ESL program also prepares students for college coursework.

MATC provides English language instruction to a linguistically diverse (more than 30 languages) and culturally diverse (50 countries) population. The student population comes from all educational and ethnic backgrounds. The

program serves students living in Milwaukee and includes resident immigrants, refugees and U.S. citizens.

ESL/ELL students learn in a variety of ways including group or individualized, computer-assisted language learning, weekend classes and online.

A student may choose courses in oral language development, vocabulary improvement, reading and writing skills, preemployment English, and computer skills. Students also can get help in preparing for citizenship.

Outreach programs for business and industry are available.

ESL/ELL CONTACT INFORMATION

Downtown Milwaukee Campus
700 West State Street
414-297-6578
eslmilw@matc.edu

Mequon Campus
5555 West Highland Avenue
262-238-2238
eslmequon@matc.edu

Oak Creek Campus
6665 South Howell Avenue
414-571-4503
esloakcreek@matc.edu

Walker's Square
816 West National Avenue
414-297-8822

West Allis Campus
1200 South 71st Street
414-456-5302
eslwest@matc.edu

Community Outreach Sites

English as a Second Language classes are offered at various community-based organizations (CBOs) in the Milwaukee area. Visit matc.edu/ESL.

Bilingual Classes and Programs

To meet employer and community needs of the growing Hispanic and Hmong populations within the Milwaukee area, MATC offers courses and programs taught in Spanish/Hmong and in English.

For example, classes assist students who are obtaining their GED in Spanish. Occupational English-language-acquisition courses help students acquire the English language skills needed to transition into MATC's bilingual degree, diploma and certificate programs. Bilingual courses also are offered in business, health, liberal arts, childhood education and other areas.

For the list of bilingual classes offered in a semester, see matc.edu and search **Course Catalog**; under Course Type, select Bilingual.

For information about bilingual programs, call 414-297-8882. Also visit matc.edu and search Bilingual Services.

700-LEVEL COURSES

ALPHABETICAL LIST OF SUBJECTS (DEPARTMENT NUMBERS ARE IN PARENTHESES)

BIOSCI	Biological Science (856)	INTRN	Internship (862)
CAREER	Career Education (862)	MATH	Mathematics (854)
CHEM	Chemistry (856)	MATHB1	Math/Basic Skills Level 1 (854)
COMMB1	Communications/Basic Skills Level 1 (851)	MATHB2	Math/Basic Skills Level 2 (854)
COMMB2	Communications/Basic Skills Level 2 (851)	MATHB3	Math/Basic Skills Level 3 (854)
COMMB3	Communications/Basic Skills Level 3 (851)	MATHB4	Math/Basic Skills Level 4 (854)
COMMB4	Communications/Basic Skills Level 4 (851)	MATHB5	Math/Basic Skills Level 5 (854)
COMMB5	Communications/Basic Skills Level 5 (851)	MATHB6	Math/Basic Skills Level 6 (854)
COMMB6	Communications/Basic Skills Level 6 (851)	MATHCR	Mathematics Co-Requisite (854)
COMMHS	Communications – Adult High School (851)	MATHHS	Math – Adult High School (854)
COMPUB	Computer Basics – Adult Basic Education/ABE (860)	MATHPH	Math – Post High School (854)
ENG	English (851)	OFFTEC	Office Technology (862)
ENGCR	English Co-Requisite (851)	READPH	Reading – Post High School (858)
ENGE	English Enhanced (851)	SCIHS	Science – Adult High School (856)
ESL	English as a Second Language (861)	SCIPH	Science – Post High School (856)
HISTHS	History – Adult High School (853)	SOCGED	Social Science for GED (859)
HLTHHS	Health – Adult High School (857)	SOCHS	Social Science – Adult High School (859)

In this catalog, a course is identified by a grouping of two to six letters or letters and a numeral, followed by a hyphen and three numbers. For example, **CAREER-710**: The letters **CAREER** form the alphabetical code to identify the course's subject: Career Education.

BIOSCI – Biological Science (Department 856)

BIOSCI-700 **Credits: 1** A & P Prep Course

This course prepares students for entrance to and success in General Anatomy and Physiology (BIOSCI 177) and Anatomy and Physiology I (BIOSCI 201) by offering a general review of study skills, basic math, chemistry, cell biology and terminology, all concepts essential to success in anatomy and physiology.

CAREER – Education (Department 862)

CAREER-710 **Credits: 3** Exploring Technical Careers

Through presentations in training labs, hands-on shop assignments, and on-site employer visits, students acquire familiarity with skills, job opportunities, and salary expectations in the electricity/electronics industry. Emphasis is placed on technical careers in the above areas.

CAREER-719 **Credits: 3** Healthcare Concepts and Careers

This course examines the healthcare industry and explores various health careers. Concepts related to the various health careers, such as medical terminology, anatomy, and physiology, are also included.

CAREER-725 **Credits: 1** Career Exploration Seminar

Students engage in self-assessment activities that match their strengths and needs to career choices. Using web-based information, students research and compare careers with special attention to educational preparation needed for success. Students will tour MATC, interview counselors, staff and/or faculty as they prepare a career portfolio. Nontraditional employment receives special attention.

CAREER-740 **Credits: 3** Success Strategies for School

Students identify the characteristics of a successful student, identify which characteristics they lack, and work to develop those traits. Students identify their learning styles and how they can use their styles to aid themselves in learning.

CAREER-741 **Credits: 3** Career Preparation and Exploration

Analysis of strengths, weaknesses, personalities, aptitudes, attitudes, etc., is covered. Students match their strengths and needs to job opportunities, and assess job availability. Up-to-date job openings are examined, and students research two careers.

CAREER-750 **Credits: 1** GED Orientation Career Planning

In this class, participants are provided with an overview of the various options available to

those persons seeking high school equivalency diplomas. This class, which must precede the taking of the GED/HSED tests, also includes interest inventory and career decision-making activities that help participants develop a better focus on career options based on backgrounds, skills and job trends.

CAREER-757 **Credits: 1** GED 2 Employability Skills

This course is designed to acquaint high school equivalency diploma students with major employment trends in the 21st century. In conjunction with the review and completion of sample applications, students are introduced to varied types of resume and cover letter formats. Opportunities to explore the interview process are also provided, coupled with information on available resources pertaining to the development of academic, personal management, and teamwork skills.

CHEM – Chemistry (Department 856)

CHEM-701 **Credits: 1** Science Prep

This course is designed to prepare students for a rigor of science classes. This prep course will teach you fundamental math required for sciences, analytical reading and study skills.

Communications (Department 851)

COMMUNICATIONS BASIC SKILLS LEVEL 1

COMMB1-711 Credits: 4

Basic Communications 1

Level 1 Communication emphasizes writing simple notes and messages on familiar situations. Learners who successfully complete Level 1 Communication achieve beginning basic education benchmarks according to NRS guidelines.

COMMUNICATIONS BASIC SKILLS LEVEL 2

COMMB2-721 Credits: 4

Basic Communications 2

Level 2 Communication emphasizes basic writing tasks related to life roles, such as completing medical forms, order forms, and job applications. Learners write short reports and messages to fellow workers. Learners self-edit and peer-edit for spelling and punctuation. Learners who successfully complete Level 2 Communication achieve low intermediate education benchmarks according to NRS guidelines.

COMMUNICATIONS BASIC SKILLS LEVEL 3

COMMB3-731 Credits: 4

Basic Communications 3

Level 3 Communication emphasizes writing simple narrative descriptions and short essays on familiar topics. Learners complete forms, such as job applications, and strive for consistent use of basic grammar and punctuation. Learners who successfully complete Level 3 Communication achieve high intermediate education benchmarks according to NRS guidelines.

COMMUNICATIONS BASIC SKILLS LEVEL 4

COMMB4-741 Credits: 4

Basic Communications 4

Level 4 Communication emphasizes writing complete compound and complex sentences, personal notes, and letters that accurately reflect thoughts. Learners strive for writing that is organized and cohesive with few mechanical errors. Learners who successfully complete Level 4 Communication achieve low adult secondary education benchmarks according to NRS standards.

COMMUNICATIONS BASIC SKILLS LEVEL 5

COMMB5-751 Credits: 4

Basic Communications 5

Level 5 Communication emphasizes using varied and complex sentence structure with

few mechanical errors. Learner's writing is cohesive with clearly expressed ideas supported by relevant detail. Learners who successfully complete Level 5 Communication achieve high adult secondary education benchmarks according to NRS guidelines.

COMMUNICATIONS BASIC SKILLS LEVEL 6

COMMB6-761 Credits: 4

Basic Communications 6

Level 6 Communication emphasizes creating written documents, including a research paper. Learners express both written and spoken ideas in a clear, concise manner in a variety of settings. Learners who successfully complete Level 6 Communication are prepared to enter postsecondary education and/or obtain and maintain employment.

COMMUNICATIONS – ADULT HIGH SCHOOL

COMMHS-703 Credits: 3

World Literature 1

The major focus is short fiction, poetry and drama. Students will learn literary terms and story elements. Students will develop an understanding of the characteristics of various literary genres. Students will explore the works of culturally diverse authors, playwrights and poets.

COMMHS-705 Credits: 3

American Literature 1

During this junior-level English course, American literature from the American Colonial Period to post-Civil War days is studied. A sampling of authors studied will include Nathaniel Hawthorne, Henry Wadsworth Longfellow, Louisa May Alcott and Chief Joseph. The mechanics of writing is reviewed as applied to story responses through word-processed compositions.

COMMHS-706 Credits: 3

American Literature 2

During this junior-level English course, the study of American literature is continued covering the mid-1800s to modern times. Authors studied include Langston Hughes, Robert Frost, Walt Whitman and Richard Wright. A review of writing complete and effective sentences is done in order to enhance word-processed composition.

COMMHS-711 Credits: 3

Multicultural Literature 1

This course will study the rich literary genres of a variety of cultures such as African American, Chinese, Indian, Japanese, Jewish, Korean, Latino/Hispanic and Native American. Biographies, essays, poetry and short fiction readings may be supplemented by films to provide a broader appreciation of the literary contributions made by a variety of noted world authors.

COMMHS-713 Credits: 3

Science Fiction Literature

This English class reads, discusses and analyzes science fiction short stories, novels and films. This course is designed to help students think about the impact rapid changes in medicine, technology and science will have on their future. Great science fiction classics by Isaac Asimov, Ray Bradbury, H.G. Wells, George Orwell, Arthur Clarke and other noted science fiction writers are introduced to students. Based on their readings, students will complete three written reports.

COMMHS-725 Credits: 3

Composition

Prepares students to compose materials for common purposes and audiences. It provides instruction in the process of writing and the practice of the specific skills needed to communicate effectively for writing in academic and occupational settings. The student will review basic grammar, sentence structure and paragraph development to serve as a stepping stone for perfecting writing skills. Students further develop essay writing skills.

COMMHS-730 Credits: 3

Language Arts Communication 1

This English class is a combination of literature, grammar and writing. Short stories, poems and plays will be read and discussed. Grammar lessons of sentence structure, parts of speech, punctuation and spelling will be taught and incorporated into writing activities. Students learn to understand and appreciate literature and to develop their writing skills.

COMMHS-731 Credits: 3

Language Arts Communication 2

This English class is a combination of literature, grammar and writing. Short stories, poems and plays will be read and discussed. Grammar lessons of the parts of speech, phrases, clauses, sentences and punctuation will be reviewed and incorporated into writing activities. Students learn to understand and appreciate literature and to develop their writing skills.

COMMHS-732 Credits: 3

English Review and Mastery

This English class is an intense review of grammar, punctuation, capitalization, phrases, clauses, sentence structure, spelling and vocabulary with a writing component. Writing assignments will include writing paragraphs, business letters, a resume, reports and a research paper.

COMMHS-750 Credits: 3

Speak for Yourself

This is a speech class designed to emphasize the importance of speaking well to facilitate effective communication. It will give students an opportunity to prepare and deliver speeches. The speeches will focus on everyday situations that one might encounter in family living, at school, at church, at work, in the community and in the world. It will stress that effective communication skills are relevant and very pertinent to being successful.

700-LEVEL COURSES

COMPUTER BASICS (DEPARTMENT 860)

COMPUB-701 Credits: 1 Computer Basics - Adult Basic Education

This introductory course to computers requires no prior experience. Students learn basic functions, terminology, applications, and use of the keyboard and mouse. Topics covered are the history of the computer, computer terminology, operating system, hardware components, software packages and mouse dexterity. Students create simple documents in Microsoft Word. Prerequisite(s): Must be enrolled in a basic skills course.

COMPUB-768 Credits: 3 Digital Literacy for GED

This course introduces and develops targeted digital literacy skills needed for GED coursework and GED testing and is enhanced with academic computer and technology essentials. Focus is on computer and technology topics and skill sets for GED success that include access, familiarity, and ease of use of GED software and tools. GED computer-based testing fundamentals, Google Drive and Blackboard, and computer basics (e.g., navigation, word processing, and file management).

COMPUB-798 Credits: 1 Online Student Readiness

Course introduces skills and methods regarding technology literacy and self-management for first-time, online college students. Course learning outcomes focus on skills development for distance learning student success at Milwaukee Area Technical College by exploring the following tools: Blackboard, Self-Service, myMATC and Gmail. Prepares students to be engaged and self-directed in asynchronous learning environments by addressing time management and best practices for online student success.

ENGLISH (DEPARTMENT 851)

ENG-700 Credits: 2 Introduction to English Foundations

This is a reading- and writing-intensive course that prepares students to succeed in a gateway English course. Learners who successfully complete the English Foundations course will learn active reading strategies, writing strategies, intermediate vocabulary development strategies and written communication skills.

ENGE-701 Credits: 1 English Foundations 1

This course is designed to help students strengthen their college-level reading, communication and writing skills. This is a reading- and writing-intensive co-requisite course that prepares students to succeed in ENGE-195. This course focuses on building and enhancing reading, communication and writing skills with an emphasis on critical thinking and analysis and facilitating competence in

English grammar and paragraph development. Prerequisite(s): Student must be registered in ENGE-195.

ENGE-702 Credits: 1 English Foundations 2E

The English 201-E CR session is designed to help students strengthen their college-level reading and writing skills. This is a reading- and writing-intensive co-requisite course that prepares students to succeed in ENG-201. This course focuses on college-level reading and writing skills with an emphasis on critical thinking and analysis. Prerequisite(s): Students must be registered in ENGE-201.

ENGLISH AS A SECOND LANGUAGE (DEPARTMENT 861)

ESL-700 Credits: 3 ESL Workshop

The ESL Workshop provides students with an opportunity to improve their English skills by working one-on-one with an instructor and independently at their own pace. Students can be placed in CALL (computer-assisted language learning) programs in which they can work on listening, speaking and pronunciation, grammar, reading, writing, or integrated skills.

ESL-711 Credits: 5 Beginning ESL Literacy

This course is designed for those students who have minimal reading and writing skills in their native language and have no proficiency in oral or written English.

ESL-721 Credits: 5 Low Beginning ESL

This course is designed for those students who have minimal proficiency in oral or written English.

ESL-731 Credits: 5 High Beginning ESL

This course is designed for students who have some ability to function in a limited capacity in oral or written English but still need assistance.

ESL-751 Credits: 5 Low Intermediate ESL

Individualized instruction and group study options offer opportunities for improvement in oral and written English for nonnative speakers of the language. A preemployment and/or preacademic focus is offered using a variety of instructional strategies.

ESL-771 Credits: 5 High Intermediate ESL

This course is designed for students who function independently in oral and written English but need more consistency in the control of language skills.

ESL-791 Credits: 5 Advanced ESL

Individualized and group study options offer opportunities for improvement of oral and written English for more advanced nonnative speakers of English.

ESL-792 Credits: 3 Citizenship Preparation

This course is structured for those who wish to become U.S. citizens. Instruction will focus on important events in U.S. history and on the organization and functions of federal, state and local governments. There will be practice in writing basic English sentences needed for the citizenship test.

HISTORY – ADULT HIGH SCHOOL (DEPARTMENT 853)

HISTHS-705 Credits: 3 American History 1

The history of the American people from 1400 to 1876 is covered. The course includes a careful study of the sectional controversy and the Reconstruction period that followed the Civil War.

HISTHS-706 Credits: 3 American History 2

In covering major developments in United States history from the 1870s to today, the following topics are surveyed: Industrialization, the Progressive Era, Imperialism, World War I, the 1920s, the Depression and World War II.

HLTHHS/HEALTH – ADULT HIGH SCHOOL (DEPARTMENT 857)

HLTHHS-700 Credits: 3 Wellness and Fitness Education

This lecture and lab course provides students with a contemporary approach to the total wellness concept, which includes physical, emotional, occupational, spiritual and environmental components. Students develop personal plans for lifetime wellness.

HLTHHS-711 Credits: 2 Adult Recreation 1

Adult recreation class is designed to introduce students to the benefits of participation in fitness and sports activities. The course will expose students to a broad array of recreational opportunities, emphasize instruction and participation rather than competition, and introduce concepts that have potential for lifetime use.

HLTHHS-712 Credits: 2 Adult Recreation 2

This course is designed to further develop recreational skills and individual fitness techniques. Prerequisite(s): Complete HLTHHS-711.

HLTHHS-730 Credits: 2
Health for Adults

This lecture course helps students make a realistic appraisal of their health and supplies them with strategies to improve nutritional awareness, stress management and physical fitness.

HLTHHS-744 Credits: 2
CPR and First Aid

This course develops lifesaving skills needed to become certified in American Heart Association Heartsaver and First Aid. Skills include techniques for adult, child and infant victims. Successful course completion will result in a two-year certification.

HLTHHS-751 Credits: 1
Body Conditioning 1

This activity class provides students with specific training techniques that are used to develop and enhance muscular strength and endurance. The focus is on improving fitness as well as preparing for the physical demands of daily living.

HLTHHS-752 Credits: 1
Body Conditioning 2

This course is designed to teach advanced strategies of body toning and progressive resistance training. Prerequisite(s): HLTHHS-751

INTERNSHIP
(DEPARTMENT 862)

INTRN-796 Credits: 1
Employment Success

With an emphasis on polishing your job search and career management skills, this workshop presents practical strategies that prepare students to complete their required internship and to lay the foundation for successful career development. Assignments include researching prospective employers, preparing resumes and cover letters, networking and a practice interview.

MATHEMATICS
(DEPARTMENT 854)

MATH-700 Credits: 1
Math Fundamentals in Context

This course is designed to prepare students for successful completion of entry-level college math courses and will provide a hands-on, contextualized approach to learning mathematics that will help students improve their math skills.

MATHEMATICS – BASIC
SKILLS LEVEL 1

MATHB1-714 Credits: 4
Basic Arithmetic 1

Level 1 Mathematics develops number concepts, mathematical language and whole number topics. Participants learn to count, add and subtract three-digit numbers, and perform multiplication through 12. Learners identify simple fractions and perform other simple arithmetic operations. Learners achieve beginning basic education benchmarks according to NRS guidelines.

MATHEMATICS – BASIC
SKILLS LEVEL 2

MATHB2-724 Credits: 4
Basic Arithmetic 2

Level 2 Mathematics emphasizes the four basic math operations and using whole numbers up to three digits. Learners can identify and use all basic mathematical symbols. Learners use critical thinking skills to solve problems, perform computations, estimate results, and apply mathematics to real-world situations. Learners achieve low intermediate basic education benchmarks according to NRS guidelines.

MATHEMATICS – BASIC
SKILLS LEVEL 3

MATHB3-734 Credits: 4
Basic Arithmetic 3

Level 3 Mathematics emphasizes the four basic math operations, using whole numbers and fractions. Learners can determine the correct operation for solving narrative math problems and can convert fractions to decimals and decimals to fractions. Learners achieve high intermediate basic education benchmarks according to NRS guidelines.

MATHEMATICS – BASIC
SKILLS LEVEL 4

MATHB4-744 Credits: 4
Basic Arithmetic 4

Level 4 Mathematics emphasizes all basic math functions and introduces simple algebraic equations. Learners can perform all basic math functions with whole numbers, decimals and fractions. Learners can interpret and solve simple algebraic equations, tables and graphs and can develop their own tables and graphs. Learners can use math in business transactions. Learners achieve low adult secondary education benchmarks according to NRS guidelines.

MATHEMATICS – BASIC
SKILLS LEVEL 5

MATHB5-754 Credits: 4
Basic Arithmetic 5

Level 5 Mathematics emphasizes applying mathematical concepts, including algebra, geometry, trigonometry and probability. Learners make mathematical estimates of time and space and apply the principles of geometry to measure angles, lines and surfaces. Learners achieve high adult secondary education benchmarks according to NRS guidelines.

MATHEMATICS – BASIC
SKILLS LEVEL 6

MATHB6-764 Credits: 4
Basic Arithmetic 6

Level 6 Mathematics emphasizes analyzing non-routine problems and arriving at a solution by various means. Learners apply algebraic, geometric and trigonometric functions to solve problems.

MATHCR-701 Credits: 2
Math Foundations 1

This course is designed as additional support for students taking a specific section of a 100-level math class and is required for students taking co-requisite sections of 100-level math classes. Student learn the skills needed for success in math. Prerequisite(s): Student must register in MATH-107.

MATHCR-702 Credits: 2
Math Foundations 2

This course is designed as additional support for students taking a specific section of a 200-level math class and is required for students taking co-requisite sections of 200-level math classes. Student learn the skills needed for success in math. Prerequisite(s): Student must register in MATH-200.

MATHEMATICS – ADULT
HIGH SCHOOL

MATHHS-705 Credits: 3
Survey of Math Concepts

Are you experiencing difficulty remembering your basic (but important) math skills? If so, this course is for you. Topics covered include a review of the properties of the operations on whole numbers, decimals and fractions. Ratios, proportions and percents are reviewed. Also covered are some algebraic topics such as algebraic terminology, exploration of exponents, practice with the order of operations and an introduction to simple linear equations. Top it all off with applications of these tools to daily life situations.

MATHHS-707 Credits: 3
Consumer Math

This course is designed to help you with everyday consumer math skills — math you should and do use all the time. You will learn a wide variety of personal and business math skills.

MATHHS-716 Credits: 3
Algebra 1A

This course is equivalent to the first semester of first-year algebra. It begins with performing the basic operations (addition, subtraction, multiplication and division) on signed (+ and -) numbers. The course covers basic algebraic terminology, evaluating expressions, solving equations and inequalities with one variable (letter), and performing the basic operations on expressions.

MATHHS-717 Credits: 3
Algebra 1B

This course is equivalent to the second semester of first-year algebra. It begins with the different methods of factoring and applying these methods to solve quadratic equations and work with rational expressions (algebraic fractions). This work includes simplifying (reducing) them, setting up and solving proportions, and performing the basic operations of addition, subtraction, multiplication and division on them. Prerequisite(s): Complete MATHHS-716.

700-LEVEL COURSES

MATHHS-721 Credits: 3 **Geometry 1**

Geometric concepts covered include points, lines, planes, conditional statements, angles, symbols, triangles and proof writing. Tools, techniques and procedures covered include: algebraic properties, deductive reasoning, inductive reasoning, definitions, theorems and postulates. Prerequisite(s): Complete MATHHS-717.

MATHHS-722 Credits: 3 **Geometry 2**

Geometric concepts covered include volume and surface area of three-dimensional shapes, circles, chords, arcs and tangents, and right triangle trigonometry. Tools, techniques and procedures covered include algebraic properties, deductive reasoning, inductive reasoning, definitions, theorems and postulates.

MATHHS-745 Credits: 3 **Advanced Algebra 1A**

This course is equivalent to the first semester of second-year algebra. The course begins with the graphing of lines. Topics include graphing of linear inequalities in two variables; solving linear systems (two lines) using the graphic, elimination, and substitution methods; exploring other methods of solving equations; and the study of roots and radicals.

MATHHS-755 Credits: 3 **Advanced Algebra 1B**

This course is equivalent to the second semester of the second year of algebra. Topics include counting techniques and probability, a study of quadratics (the parabola, circle, ellipse and hyperbola), the solution of three equation systems of lines and of nonlinear systems, and the study of matrices, determinants and exponential and logarithmic functions.

MATHEMATICS – POST HIGH SCHOOL

MATHPH-707 Credits: 3 **Financial Literacy**

This course is designed to help you with everyday consumer math skills, math you should do use all the time. You will learn a wide variety of personal and business math skills.

MATHPH-716 Credits: 3 **Algebra 1A**

This course has a brief review of fractions and decimals. The main course consists of the basic operations with real numbers, evaluating algebraic expressions, solving equations and inequalities with one variable, and operations with algebraic expressions.

MATHPH-717 Credits: 3 **Algebra 1B**

This course begins with factoring and the solution of quadratic equations by factoring. It also includes rational expressions, and ratio and proportion, and concludes with operations with algebraic expressions involving fractions. Prerequisite(s): Complete MATHHS-716 or MATHPH-716.

MATHPH-722 Credits: 3 **Geometry 2**

Geometry 1 is extended to include similar polygons, right triangles, circles, construction and logic. Sets that describe areas and volumes, as well as the formulas for such sets, are presented.

MATHPH-745 Credits: 3 **Advanced Algebra 1A**

This course is equivalent to the first semester of second-year algebra. The course begins with the graphing of lines. Topics include graphing of linear inequalities in two variables; solving linear systems (two lines) using the graphic, elimination, and substitution methods; exploring other methods of solving equations; and the study of roots and radicals.

MATHPH-755 Credits: 3 **Advanced Algebra 1B**

This course offers a sampling of matrix algebra, trigonometry, conic section, probability, statistics, progression and series. It is designed to whet the appetite for future mathematical studies.

OFFICE TECHNOLOGY (DEPARTMENT 862)

OFFTEC-735 Credits: 3 **Keyboard, Keypad and Windows**

This is a competency-based course for learning the alphabetic and numeric keyboard using the touch method. In addition, the numeric keypad is presented. Students experience hands-on practice using a mouse, menus and Windows accessories. Furthermore, the student will format, type, print, edit and save simple documents using Microsoft Word.

OFFTEC-737 Credits: 3 **Business Operations Co-Op Part 2**

Class time consists of a variety of work-related sections designed to improve skills necessary for work with portfolio. Areas covered include database, spreadsheets, math concepts and financial recordkeeping. Prerequisite(s): Complete OFFTEC-735.

OFFTEC-738 Credits: 2 **Business Co-Op Work Experience 1**

Class time consists of a variety of work-related sections designed to improve entry-level clerical skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based, and business portfolio completion.

OFFTEC-739 Credits: 3 **Business Operations Co-Op Part 1**

Class time consists of a variety of work-related sections designed to improve skills necessary for work with portfolio. Areas covered include interpersonal relationships and concepts, technology, and international business.

OFFTEC-742 Credits: 2 **Business Co-Op Work Experience 2**

Class time consists of a variety of work-related sections designed to improve entry-level clerical

skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based and business portfolio completion. Prerequisite(s): Complete OFTECH-738.

OFFTEC-743 Credits: 2 **Business Co-Op Work Experience 3**

Class time consists of a variety of work-related sections designed to improve entry-level clerical skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based and business portfolio completion. Prerequisite(s): Complete OFFTEC-742.

OFFTEC-744 Credits: 2 **Business Co-Op Work Experience 4**

Class time consists of a variety of work-related sections designed to improve entry-level clerical skills as defined by the portfolio. Among areas covered are a meeting preparation project, a project either accounting-based or technology-based and business portfolio completion. Prerequisite(s): Complete OFFTEC-743.

READING – POST HIGH SCHOOL

READPH-772 Credits: 5 **READPH2: Advanced Comprehension**

The Reading Post High School Course is designed for students who have graduated from high school or have earned a GED or HSED. This course emphasizes adapting strategies and skills to a variety of reading tasks and becoming a critical reader. Learners apply prior experience and knowledge, use study skills, and transfer reading and vocabulary skills to a variety of printed and illustrative materials found in the workplace, school and everyday life. Learner responds to reading in written form. Learners who successfully complete the course are prepared to enter postsecondary education and/or obtain and maintain employment. The class assumes competence in use of basic reading strategies.

SCIENCE – ADULT HIGH SCHOOL

SCIHS-701 Credits: 3 **General Science 1**

Designed to give students a better understanding of the environment, this course demonstrates the importance of the sciences in everyday life. Topics include matter, energy, electricity and heat. Includes class demonstrations and group experiments.

SCIHS-702 Credits: 3 **General Science 2**

This course is a study of our changing planet and the makeup of our living world. Topics include geology, weather, climate, the universe, life on earth, ecology, our human body and environmental problems.

SCIHS-703 Credits: 3
Biology 1

Students obtain an overview of biology and learn about the basic tools for biology, the chemical and structural basis of life, genetics, and microbiology through lecture and labs.

SCIHS-704 Credits: 3
Biology 2

Students develop an understanding of the anatomy and physiology of animals with an emphasis on human biology, through lecture, dissections and experiments.

SCIHS-705 Credits: 3
Chemistry 1

The language and logic of chemistry are developed by studying elements, compounds and mixtures; atomic structure; the periodic table and the Periodic Law; chemical bonding; the naming of compounds; the writing of formulas; and other topics. Prerequisite(s): Complete MATHHS-716 or MATHPH-716.

SCIHS-706 Credits: 3
Chemistry 2

Instruction is continued in the laws and principles of chemistry through a study of oxygen, hydrogen, carbon, the properties of gases, the kinetic theory of matter, ionization, solutions, oxidation-reduction, radioactivity and other topics. Prerequisite(s): Complete SCIHS-705 or SCIPH-705.

SCIHS-750 Credits: 3
Physical Science 1

Physical Science 1 teaches the nature of science while incorporating physics, chemistry, earth science and space science. Topics include nonliving matter, scientific problem-solving, metric measurement, nature of chemicals, periodic tables, force, acceleration, momentum, work, power and machines.

SCIHS-751 Credits: 3
Physical Science 2

Physical Science 2 is a course designed to teach the nature of science while incorporating physics, chemistry, Earth science and space science. Topics include heat and temperature, waves, communication and technology, the solar system, the universe, planet Earth, the atmosphere and using natural resources.

SCIENCE – POST HIGH SCHOOL

SCIPH-703 Credits: 3
Biology 1

Students will obtain an overview of biology and learn about the basic tools for biology, the chemical and structural basis of life, genetics and microbiology through lecture and labs.

SCIPH-704 Credits: 3
Biology 2

Students will develop an understanding of the anatomy and physiology of animals, with an emphasis on human biology, through lecture, dissections and experiments.

SCIPH-705 Credits: 3
Chemistry 1

The language and logic of chemistry are developed by studying elements, compounds and mixtures; atomic structure; the periodic table and the Periodic Law; chemical bonding; the naming of compounds; the writing of formulas; and other topics. Prerequisite(s): Complete MATHHS-716 or MATHPH-716.

SCIPH-706 Credits: 3
Chemistry 2

Instruction is continued in the laws and principles of chemistry through a study of oxygen, hydrogen, carbon, the properties of gases, the kinetic theory of matter, ionization, solutions, oxidation-reduction, radioactivity and other topics. Prerequisite(s): Complete SCIHS-705 or SCIPH-705.

SCIPH-750 Credits: 3
Physical Science 1

Physical Science 1 teaches the nature of science while incorporating physics, chemistry, Earth science and space science. Topics include nonliving matter, scientific problem-solving, metric measurement, nature of chemicals, periodic tables, force, acceleration, momentum, work, power and machines.

SOCIAL SCIENCE – ADULT HIGH SCHOOL

SOCHS-701 Credits: 3
American Government

A study is made of American democracy. Topics include political principles, documents, and the development of rights of a free people. Emphasis is placed upon three major areas: the Congress, the presidency and the Supreme Court.

SOCHS-704 Credits: 3
Economics

A study of our great challenge to use our limited resources to satisfy unlimited human wants for goods and services. This course attempts to explain how humans and nations resolve this problem.

SOCHS-709 Credits: 3
World Geography I

World Geography I helps students understand that the world has systems that can be compared, analyzed and evaluated through the study of landforms, climates, ecosystems and their interactions. Students will learn that the five themes of place, location, movement, region and human environmental interactions can be applied throughout the globe. In addition, students will look at world events and their impact on countries, cultures, environments and individuals. World Geography I will study the geography of the following regions of the world: North America, Central America and South America.

SOCHS-710 Credits: 3
World Geography II

World Geography II helps students understand that the world has systems that can be compared,

analyzed and evaluated through the study of landforms, climates, ecosystems and their interrelationships. Students will learn that the five themes of place, location, movement, region and human environmental interactions can be applied throughout the globe. In addition, students will look at world events and their impact on countries, cultures, environments and individuals. World Geography 2 will study the geography of the following regions of the world: Asia, Africa Australia, Europe and Antarctica.

SOCHS-714 Credits: 3
Personal Economics

Personal Economics will utilize the appropriate resources to research, plan, implement and assess a learner's individual short-term and long-term personal economic future. Learners will focus on practical skills that can be applied to improving their personal finances.

SOCHS-720 Credits: 3
Psychology

The basic concepts, methods and applications of psychology in the daily life of the individual are studied. The student receives a broad introduction to the field of psychology as the science of human behavior.

SOCHS-750 Credits: 2
Civic Literacy

In this course, the student learns the basic principles expressed in important political documents in U.S. history as well as the relationships between national, state and local governments.

SOCHS-761 Credits: 3
Sociology

This course develops an awareness of the social structures, social processes and institutions that make up society. By analyzing the various societal processes and structures, it enables the student to relate to group experiences.

APPRENTICESHIPS

Earn a wage while you learn a trade. Apprenticeships are formal training agreements for hands-on learning. Employers teach skills of the trade on the job, and classroom instruction reinforces this knowledge. To become an apprentice you need to be registered with the Bureau of Apprenticeship Standards and have an employer sponsor your attendance in classes for one day per week. For more information, visit matc.edu and search Apprenticeships.

WHAT IS AN APPRENTICESHIP?

The Process

The process of becoming an apprentice starts with employment at an apprentice sponsoring company or with a trade union. An apprenticeship is an “earn while you learn” program with a built-in formal training agreement (Apprentice Contract) providing on-the-job training and related classroom instruction provided by MATC. The training is received on-the-job where the employer teaches the skills of the occupation. The classroom instruction is theoretical knowledge pertaining to a specific occupation and usually taught at MATC. When unavailable, factory training schools or correspondence courses can be substituted. The term of training may vary from two to five years, depending on the occupation.

Prospective Earnings

Wages in various occupations vary. Most apprentices begin at approximately 50% of the current skilled wage rate. It has been the practice in most occupations to provide a periodic step increase every month or 1,040 hours and apprentices wages must average 60% of the skilled wage rate during the term of the apprenticeship program.

TYPES OF APPRENTICESHIPS

Areas of Interest

To learn more about construction, industrial, information technology (IT) and service apprenticeships – including bilingual options.

BILINGUAL APPRENTICESHIPS

Bilingual Barber And Cosmetologist Apprenticeship Program

This program is offered by MATC to help Spanish-speaking students strengthen their English language skills while preparing for a career as a barber or cosmetologist. The first year of instruction is held at MATC’s Education Center at Walker’s Square, 816 West National Avenue, Milwaukee. The students later attend traditional barber/cosmetologist apprentice classes at MATC’s Downtown Milwaukee Campus for an additional year or two after the first year of bilingual classes.

CONSTRUCTION REGISTERED APPRENTICESHIPS

How Do I Apply?

Construction registered apprenticeships are sponsored by local committees, not individual employers. Follow the steps below to jump-start your apprenticeship.

1. Search for a local committee that fits your apprenticeship occupation.
2. Apply directly to the local committee by visiting their website. Satisfy the committee’s minimum entry requirements, which may include an aptitude test, interview, and more.
3. The committee will notify qualified applicants as to the next steps.
4. The committee will place apprentices in jobs using a rank order list or letter of introduction.
5. The rank order lists candidates by their accumulative scores. When an employer requests an apprentice, the committee contacts the next apprentice on the list.
6. The committee will provide a letter of introduction stating that the applicant has fulfilled the entry requirements for an apprenticeship. It is then the responsibility of the applicant to find an employer to sponsor their apprenticeship. The committee may provide a list of employers who work with that committee to the applicant to use.

Apprenticeships

- Construction Electrician
- Environmental Service Technician
- Residential Wirer
- Sheet Metal Worker
- Steamfitter (Construction)
- Steamfitter (Refrigeration)
- Telecommunications (VDV) Installer/Technician

INDUSTRIAL REGISTERED APPRENTICESHIPS

How Do I Apply?

The Department of Workforce Development lists featured sponsors that have apprenticeship opportunities, but applicants apply directly with the employer. Each application process varies depending on occupation and the business. Follow the steps below to begin your journey into apprenticeship.

1. Search for employers that meet your apprenticeship interests and visit JobCenterofWisconsin.com to find job openings and apprenticeships.
2. Satisfy the minimum entry requirements for the individual trade and for the employer.
3. Apply directly to the company that operates an apprenticeship program.

Note: Some employers may limit apprenticeships to current employees, so consider taking another position with the company in the meantime.

Apprenticeships

- Facilities Maintenance Technician
- Industrial Electrician (Maintenance Electrician)
- Industrial Maintenance Mechanic
- Industrial Manufacturing Technician
- Industrial Pipe Fitter
- Machine Repair
- Machine Tool (Machinist)
- Mechatronics
- Tool and Die Maker (Patternmaker)

INFORMATION TECHNOLOGY REGISTERED APPRENTICESHIPS

How Do I Apply?

The Department of Workforce Development lists featured sponsors that have apprenticeship opportunities, but applicants apply directly with the employer. Each application process varies depending on occupation and the business. Follow the steps below to begin your journey into apprenticeship.

1. Search for employers that meet your apprenticeship interests and visit JobCenterofWisconsin.com to find job openings and apprenticeships.
2. Satisfy the minimum entry requirements for the individual trade and for the employer.
3. Apply directly to the company that operates an apprenticeship program.

Note: Some employers may limit apprenticeships to current employees, so consider taking another position with the company in the meantime.

Apprenticeships

- IT Data Analyst

SERVICE REGISTERED APPRENTICESHIPS

How Do I Apply?

The Department of Workforce Development lists featured sponsors that have apprenticeship opportunities, but applicants apply directly with the employer. Each application process varies depending on occupation and the business. Follow the steps below to begin your journey into apprenticeship.

1. Search for employers that meet your apprenticeship interests and visit JobCenterofWisconsin.com to find job openings and apprenticeships.
2. Satisfy the minimum entry requirements for the individual trade and for the employer.
3. Apply directly to the company that operates an apprenticeship program.

Note: Some employers may limit apprenticeships to current employees, so consider taking another position with the company in the meantime.

Apprenticeships

- Arborist
- Barber
- Cosmetologist
- Culinary Cook
- Early Childhood Educator
- Pharmacy Technician

ACCREDITATION INFORMATION

MATC is accredited by the **Higher Learning Commission**

230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1411, 800-621-7440; info@hlcommission.org

Specific MATC academic programs are accredited, approved and/or certified by the following organizations and agencies.

Aesthetician

State of Wisconsin Department of Safety and Professional Services
4822 Madison Yards Way
Madison, WI 53705
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>

Aesthetician Skin Care Therapist

State of Wisconsin Department of Safety and Professional Services
4822 Madison Yards Way
Madison, WI 53705
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Aesthetician/Default.aspx>

Air Conditioning and Refrigeration Technology

HVAC Excellence
P.O. Box 521
Mt. Prospect, IL 60056
800-726-9696

escogroup.org/accreditation/

Anesthesia Technology

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
9355 - 113th Street N, #7709
Seminole, FL 33775
727-210-2350

caahep.org (search for Anesthesia Technology)

Automotive Maintenance Technician

ASE Education Foundation
1503 Edwards Ferry Road NE, Suite 401
Leesburg, VA 20176
703-669-6650

aseeducationfoundation.org

Automotive Technology – Comprehensive

ASE Education Foundation
1503 Edwards Ferry Road NE, Suite 401
Leesburg, VA 20176
703-669-6650

aseeducationfoundation.org

Aviation Maintenance Technician – General

U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue SW
Washington, DC 20591
866-835-5322

www.faa.gov

FAA (Federal Aviation Administration)
CFR (Code of Federal Regulations)
Part 147 Aviation Maintenance Technician School

Aviation Technician – Airframe

U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue SW
Washington, DC 20591
866-835-5322

www.faa.gov

FAA (Federal Aviation Administration)
CFR (Code of Federal Regulations)
Part 147 Aviation Maintenance Technician School

Aviation Technician – Powerplant

U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue SW
Washington, DC 20591
866-835-5322

www.faa.gov

FAA (Federal Aviation Administration)
CFR (Code of Federal Regulations)
Part 147 Aviation Maintenance Technician School

Baking and Pastry Arts

American Culinary Federation Education
Foundation Accrediting Commission
(ACFEFAC)
6816 Southpoint Pkwy Ste 400
Jacksonville, FL 32216
904-824-4468

acfcchefs.org/accreditation

Barber

State of Wisconsin Department of Safety and Professional Services
4822 Madison Yards Way
Madison, WI 53705
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Barber/Default.aspx>

Cardiovascular Technology - Echocardiography

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
9355 - 113th Street N, #7709
Seminole, FL 33775
727-210-2350

<https://www.jrccvt.org/>

Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).

Cardiovascular Technology - Invasive

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
9355 - 113th Street N, #7709
Seminole, FL 33775
727-210-2350

<https://www.jrccvt.org/>

Accreditation is based upon a recommendation by the Joint Review Committee (JRC-CVT).

Civil Engineering Technology

Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors

Department of Safety and Professional Services
4822 Madison Yards Way
Madison, WI 53705
608-266-2112

<https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>

Computer Numerical Control (CNC) Technician

National Institute for Metalworking Skills
10565 Fairfax Boulevard, Suite 10
Fairfax, VA 22030
703-352-4971

<https://www.nims-skills.org/index.php/accreditation>

Cosmetology

State of Wisconsin Department of Safety and Professional Services
4822 Madison Yards Way
Madison, WI 53705
608-266-2112

<https://dsps.wi.gov/Pages/Professions/Cosmetologist/Default.aspx>

Criminal Justice Studies

Wisconsin Department of Justice
Training and Standards Bureau
P.O. Box 7857
Madison, WI 53707-7857

608-266-1221

www.doj.state.wi.us/dles/training-and-standards-bureau

Culinary Arts

American Culinary Federation Education
Foundation Accrediting Commission
(ACFEFAC)
6816 Southpoint Pkwy Ste 400
Jacksonville, FL 32216
904-824-4468

acfcchefs.org/accreditation

Dental Hygiene

Commission on Dental Accreditation
211 East Chicago Avenue
Chicago, IL 60611
800-232-6180

coda.ada.org/accreditation

Diesel and Powertrain Servicing

ASE Education Foundation
1503 Edwards Ferry Road NE, Suite 401
Leesburg, VA 20176
703-669-6650

aseeducationfoundation.org

Dietary Manager

Program is approved by the Association of Nutrition & Foodservice Professionals (ANFP)
 P.O. Box 3610
 St. Charles, IL 60174
 800-323-1908
anfponline.org

Early Childhood Education

National Association for the Education of Young Children (NAEYC)
 1401 H Street NW, Suite 600
 Washington, DC 20005
 800-424-2460
naeyc.org/accreditation

Emergency Medical Technician – Paramedic

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
 Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)
 8301 Lakeview Parkway, Suite 111-312
 Rowlett, TX 75088
 214-703-8445
coaemsp.org

Funeral Service

American Board of Funeral Service Education
 992 Mantua Pike, Suite 108
 Woodbury Heights, NJ 08097
 816-233-3747
abfse.org/html/committee.html

Health Information Technology

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
 200 East Randolph Street, Suite 5100
 Chicago, IL 60601
 312-235-3255
cahiim.org

Legal Studies/Paralegal

Program is approved by the American Bar Association
 321 North Clark Street
 Chicago, IL 60654
 800-285-2221
americanbar.org/groups/paralegals/

LPN to ADN Progression

Accreditation Commission for Education in Nursing (ACEN)
 3390 Peachtree Road NE, Suite 1400
 Atlanta, GA 30326
 404-975-5000
acenursing.org

Medical Assistant

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
 2020 N. California Ave. #213 Suite 7
 Chicago, IL 60647
maerb.org
 The Medical Assistant diploma program is accredited by the Commission on Accreditation of Allied Health Education Programs <https://www.caahep.org/> upon the recommendation of the Medical Assisting Education Review Board.

Medical Laboratory Technician

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
 5600 North River Road, Suite 720
 Rosemont, IL 60018-5119
 773-714-8880
naacls.org

Nail Technician

State of Wisconsin Department of Safety and Professional Services
 4822 Madison Yards Way
 Madison, WI 53705
 608-266-2112
<https://dsps.wi.gov/Pages/Professions/Manicurist/Default.aspx>

Nutrition and Dietetic Technician

Accreditation Council for Education in Nutrition and Dietetics (ACEND)
 120 South Riverside Plaza, Suite 2190
 Chicago, IL 60606-6995
 800-877-1600, ext. 5400
acend@eatright.org
<https://www.eatrightpro.org/acend>

Occupational Therapy Assistant (OTA)

Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA)
 6116 Executive Boulevard, Suite 200
 North Bethesda, MD 20852-4929
 301-652-6611
acoteonline.org

Paramedic Technician

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)
 8301 Lakeview Parkway, Suite 111-312
 Rowlett, TX 75088
 214-703-8445
coaemsp.org

Pharmacy Technician

ASHP/ACPE Pharmacy Technician Accreditation Commission
 4500 East-West Highway, Suite 900
 Bethesda, MD 20814
 301-664-8835
<https://www.ashp.org/professional-development/technician-program-accreditation>

Phlebotomy

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
 5600 North River Road, Suite 720
 Rosemont, IL 60018-5119
 773-714-8880
naacls.org

Physical Therapist Assistant

Commission on Accreditation of Physical Therapy Education (CAPTE)
 3030 Potomac Avenue, Suite 100
 Alexandria, VA 22305-3085
 800-999-2782
capteonline.org

Practical Nursing

Accreditation Commission for Education in Nursing (ACEN)
 3390 Peachtree Road NE, Suite 1400
 Atlanta, GA 30326
 404-975-5000
acenursing.org

Radiography

Joint Review Committee on Education in Radiologic Technology (JRCERT)
 20 North Wacker Drive, Suite 2850
 Chicago, IL 60606-3182
 312-704-5300
jrcert.org

Real Estate

State of Wisconsin Department of Safety and Professional Services
 4822 Madison Yards Way
 Madison, WI 53705
 608-266-2112
<https://dsps.wi.gov/Pages/Professions/RESalesperson/Default.aspx>

Refrigeration, Air Conditioning and Heating Service Technician

HVAC Excellence
 P.O. Box 521
 Mt. Prospect, IL 60056
 800-726-9696
<https://www.escogroup.org/accreditation/default.aspx>

Registered Nursing

Accreditation Commission for Education in Nursing (ACEN)
 3390 Peachtree Road NE, Suite 1400
 Atlanta, GA 30326
 404-975-5000
acenursing.org

Respiratory Therapy

Commission on Accreditation for Respiratory Care (CoARC)
 264 Precision Boulevard
 Telford, TN 37690
 817-283-2835
coarc.com
 Accreditation is based on recommendation of the Commission on Accreditation for Respiratory Care.

Surgical Technology

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
 9355 - 113th Street N, #7709
 Seminole, FL 33775
 727-210-2350
<https://arcstsa.org/>
 Accreditation is based on recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting.

Surveying and Mapping

Professional Land Surveyor Section of the Wisconsin Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Professional Land Surveyors
 Department of Safety and Professional Services
 P.O. Box 8366
 Madison, WI 53708-8366
 608-266-2112
<https://dsps.wi.gov/Pages/BoardsCouncils/AE/LandSurveyor/Default.aspx>

DIRECTORY

President's Office

Martin, Vicki J.

President, B.A., University of Wisconsin – Milwaukee; M.A., University of North Dakota; M.S., Cardinal Stritch University; Ph.D., University of Wisconsin – Madison.

Schultz, Elizabeth

Senior Executive Assistant to the President and MATC District Board, B.A., Carroll University – Waukesha; M.B.A., Thunderbird School of Global Management at Arizona State University – Glendale.

Executive Leadership Team

Bonds, Laquitha

Vice President, Human Resources, B.S., Concordia University; M.S., Cardinal Stritch University.

Bray, Laura M.

Vice President of College Advancement and External Communications, B.A., M.B.A., Marquette University.

Hamlett, Debbie

Vice President and General Manager, Milwaukee PBS, B.A., University of South Carolina.

Kuether, Eva

Acting Vice President, Finance, B.A., University of Wisconsin – Milwaukee; Certified Public Accountant.

King, Phillip

Executive Vice President, Student Success, B.S., M.S., Portland State University; Ed.D, Ferris State University.

Manion, Christine M.

Vice President, Institutional Effectiveness, B.A., St. Norbert College; M.A., Ph.D., Marquette University.

Rogers, Michael

Interim Vice President, Diversity, Equity & Inclusion, B.A., Augustana College; M.S., Western Illinois University.

Terrell-Webb, Sherry

General Counsel, B.S., University of Illinois Urbana-Champaign; J.D., Marquette University Law School.

President's Cabinet

Includes the aforementioned and the following:

Cannell, Barb

Executive Dean, Academic Learning, B.S., Western Illinois University; M.S., Northern Illinois University.

Dakwar, Mohammad

Vice President, Learn, B.S., Winona State University; M.S., Ed.D., Cardinal Stritch University.

Isahaku, Sadique

Executive Dean, Academic Strategy and Innovation, B.S., Ahmadu Bello University, Zaria, Nigeria; B.A., M. Phil., University of Tromsø, Norway; Ph.D., Norwegian University of Science & Technology, Trondheim, Norway.

Martinez Powless, Eva

Vice President, Enrollment and Retention, B.A., Alverno College; M.A., Ph.D., Marquette University.

Rowe, David M.

Chief Information Officer, B.S., M.I.T., Griffith University, Australia.

Tagliavia, Anthony J.

Chief Marketing Officer, B.S., M.S., Northwestern University.

Business & Management Faculty

Meredith, Carl C.

Dean, Business & Management Pathway, M.S., Marian College; M.D.V., Regent University.

Blechacz, Philip G.

Accounting, B.S., Marquette University; M.S., University of Wisconsin – Milwaukee; Certified Public Accountant.

Brown, Judith S.

Office/Systems Technology, Diploma, Milwaukee Area Technical College; B.B.A., University of Wisconsin – Whitewater; M.S., Cardinal Stritch University; Licensed Cosmetologist; Certified Cosmetology Instructor.

Burleson, Steven M.

Marketing, B.S., M.A., University of Wisconsin – Oshkosh; M.B.A., Keller Graduate School of Management.

Caselius, Nicole K.

Business Related Health, A.A.S, B.A., Herzog University; M.H.A., University of Phoenix.

Curtis, Nell H.

Accounting, B.S., University of Minnesota; M. Acc., Ohio State University; Certified Public Accountant.

Davidson, Gretchen A.

Marketing, B.A., University of Wisconsin – Madison; M.B.A., Purdue University Global

Dischler, Erin R.

Accounting, B.S., M.B.A., Edgewood College.

Goodwyn, Walter

Business Administration, B.S., M.B.A., Appalachian State University.

Guerin, Corrinne A.

Leadership Development, B.S., Cardinal Stritch University, M.A., Concordia University.

Hadjinian, Armen D.

Small Business, B.S., M.B.A, Marquette University.

Jatczak, Jessica A.

Business Administration, B.S., University of Wisconsin – Madison; M.B.A. Marquette University; Six Sigma Black Belt - Johnson Controls.

Javers, John R.

Accounting, B.S., University of Nevada – Las Vegas; M.B.A., University of Wisconsin – Milwaukee.

Johnson, Beverly G.

Hotel & Hospitality, A.A.S., Fashion Technical College; B.A., Ottawa University; M.S., University of Wisconsin – Stout.

Kapfhammer, Jo L.

Business Administration, B.S., University of Wisconsin – Madison; M.B.A., Marquette University.

Kinlow, Cheryl L.

Office/Systems Technology, B.A., University of Wisconsin – Milwaukee; M.B.A., Ph.D., Cardinal Stritch University.

Kopel, Rachael K.

Marketing, B.B.A., University of Wisconsin – Madison; M.B.A., Concordia University Wisconsin.

Le Blanc, Dean F.

Supervision & Leadership Development, B.S., M.B.A, Cardinal Stritch University; Six Sigma Green Belt – Motorola University; Supply Chain Management – APICS.

Leazer, Naryan

Business Administration, B.S., M.S., Cardinal Stritch University.

Lehnen, Emily S.

Marketing, B.S., M.B.A., University of Wisconsin – Madison.

Librizzi, Natasha

Accounting, B.B.A., University of Wisconsin – Milwaukee; M.B.A., Marquette University, Certified Public Accountant.

Lorino, Jay P. Jr.

Business Administration, B.S., M.B.A., University of Wisconsin – Whitewater.

Medcalf, Michael

Small Business, B.A., M.A., University of Wisconsin – Whitewater.

Metzke, Tammy M.

Accounting, B.B.A., M.B.A., University of Wisconsin – Milwaukee.

Nowak, Elaine M.

Office/Systems Technology, B.S., Northland College; M.A., Silver Lake College of Holy Family.

Olson, Danica E.

Accounting, B.S.; M.S., Marquette University; Certified Public Accountant.

DIRECTORY OF CREDENTIAL INFORMATION

Paur, Richard P.

Real Estate, B.S., M.S., Marquette University; Professional Engineer; Licensed Wisconsin Commercial Building Inspector; Licensed Wisconsin UDC – Construction Inspector; Licensed Wisconsin UDC – HVAC Inspector; Licensed Wisconsin Real Estate Broker; Licensed Wisconsin Home Inspector.

Reyes, Erika

Office/Systems Technology, B.A., Alverno University; M.B.A., Ottawa University.

Rupnick, Rochelle A.

Hospitality, B.A., University of Wisconsin – Milwaukee; M.B.A., Cardinal Stritch University; Certified Meeting Professional; Certified Meeting Manager.

Scott, Talaya J.

Accounting, B.S., Cardinal Stritch University; M.S.F.M.; Keller Graduate School of Management.

Smalley, Carmen M.

Hospitality, B.A., M.B.A., Concordia University Wisconsin; Certified Meeting Professional; Certified Hospitality Educator.

Smith, Albert L.

Leadership, B.A., University of Wisconsin – Whitewater; M.B.A., Cardinal Stritch University.

Socol, Lois J.

Human Resources Management, B.A., M.B.A., Concordia University Wisconsin.

Spredemann, Doris

Business Management, B.B.A., Universidad Nacional Mayor de San Marcos; M.B.A., Concordia University Wisconsin – Mequon

Toledo, Rebecca G.

Accounting, B.S., University of Philippines; M.B.A., San Francisco State University.

Van Wieringen, Laurie.

Business Management, A.A.S., Milwaukee Area Technical College; B.A., Lakeland College; M.S., Southern New Hampshire University; Certified Public Accountant.

Voge, Kevin D.

Human Resources Management, M.S., Marquette University.

Wakley, Del P.

Marketing, B.A., University of Wisconsin – Madison; M.B.A., University of Wisconsin – Milwaukee; Ed. S., Nova Southeastern University; Ph.D., Nova Southeastern University.

Ward Dodds, Marlena R.

Business Administration, B.A., University of Wisconsin – Milwaukee; M.B.A., Concordia University; Ed.D., Ed.S., Liberty University.

Community & Human Services Faculty

Brown, Valencia

Dean, Community & Human Services Pathway, A.A.S., Milwaukee Area Technical College; B.S., Upper Iowa University; M.S. Concordia University; Ph.D., Cardinal Stritch University.

Adams, Toshiba L.

Child Development B.S., M.S., Ph.D., University of Wisconsin – Milwaukee.

Ardis, Yvette N.

Childhood Development, B.S., University of Wisconsin – Whitewater; M.S., University of Wisconsin – Milwaukee.

Bates, Kathleen S.

Environmental Health, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – Stevens Point; M.S., University of Wisconsin – Eau Claire; Certified Hazardous Materials Manager; Registered Sanitarian.

Bodden, Jacob

Emergency Medical Services, A.A.S., Milwaukee Area Technical College; Licensed Paramedic; EMS Instructor I.

Brady, Carol

Paralegal, B.A., University of Wisconsin Eau Claire; J.D., Southern University & A & M College.

Brooks, Kelsey

Emergency Medical Services, Diploma, EMS, Waukesha Community Technical College; B.S., University of Wisconsin – La Crosse; ACLS; NREMT; EMS Instructor II.

Braun, Douglas A.

Police Technology, B.A., Marquette University; M.A., Concordia University.

Buck, Latrice D.

Human Services, B.S., Alabama State University; M.S.W., University of Wisconsin – Milwaukee; D.S.W., Capella University.

Cahoon, Alyssa M.

Emergency Medical Services-Paramedic, Technical Diploma, Gateway Technical College; A.A.S., Fox Valley Technical College; A.S.N., Excelsior College; B.S., M.P.H., Columbia Southern University; Registered Nurse; NRP – Paramedic. EMS Instructor II.

Cary, Megan

Child Development, B.A., St. Norbert College; M.S., Erikson Institute.

Chavez, Sandra A.

Human Services, B.A., Wayne State University; M.S.W., University of Wisconsin – Milwaukee.

Citchen, Darrell L.

Human Services, B.A., University of Wisconsin – Whitewater; M.S., University of Wisconsin – Milwaukee.

Cole Jr, Richard A.

Police Technology, B.S., University of Wisconsin – Milwaukee; J.D., Marquette University.

Echeveste, Celina M.

Child Development, B.A., Alverno College; M.S., University of Wisconsin - Milwaukee.

Espinoza, David A.

Child Development, B.S., M.S., University of Wisconsin – Milwaukee.

Gonzalez de Carrillo, Maria

Child Development, B.S., Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico; M.S., University of Wisconsin – Milwaukee.

Groszczyk, Allen

Police Technology, A.A.S., Milwaukee Area Technical College; B.S., Cardinal Stritch University.

Heard, Nathaniel Ellis

Emergency Medical Services, B.A., University of Wisconsin – Oshkosh; EMT-Paramedic; EMS Instructor II.

Her, Choua Y.

Child Development, A.A., Milwaukee Area Technical College; B.S., University of Wisconsin – Milwaukee; M.S., Concordia University Milwaukee.

Irzyk, Andrew J.

Emergency Medical Services, A.S.N., Owens Community College; Registered Nurse; EMT-Paramedic; EMS Instructor II.

Jackson, Megan A.

Barbering/Cosmetology, B.A., University of Wisconsin – Milwaukee; M.B.A., Lakeland University; Licensed Cosmetologist; Certified Cosmetology Instructor.

Jackson, Nicole L.

Human Services, B.A., Alverno College; M.S., Mount Mary College.

Janus, Ryan

Emergency Medical Services, Diploma, Gateway Technical College; B.S., University of Wisconsin – Milwaukee; EMT-Paramedic; EMS Instructor II.

Jasper, Julian E. Jr.

Funeral Services, A.A.S., Milwaukee Area Technical College; B.A., Cardinal Stritch University; M.Ed., Concordia University; Licensed Funeral Director.

Klaybor, Randal P.

Fire Technology, A.A.S., Milwaukee Area Technical College; B.S., Mount Scenario College; Fire and Emergency Services Instructor II.

Klis, Justin A.

Emergency Medical Services, A.A.S., Milwaukee Area Technical College; B.S., Columbia Southern University; M.P.A., Columbia Southern University; NREMT – Paramedic. EMS Instructor II; National Certified EMS Instructor (NCEE).

DIRECTORY

Koerner, Erin T.

Emergency Medical Services, B.S., University of Wisconsin – Stevens Point; M.S., Columbia Southern University; NREMT-Paramedic; EMS Instructor II.

Kornblum, Lori S.

Paralegal, B.A., Yale College; J.D., University of California, Berkeley.

Monroe, Kelly J.

Funeral Services, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – La Crosse; M.Ed., Carroll University; Licensed Funeral Director.

Paider, Guy

Emergency Medical Services. Diploma, EMT, Lakeshore Technical College; A.A.S. Milwaukee Area Technical College; A.A.S., Fox Valley Technical College; B.S., Upper Iowa University; EMT Paramedic.

Plevak, Thomas A.

Fire Technology, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – Milwaukee; M.S., University of Wisconsin – Stout.

Prange, Constance

Police Technology, B.A., Concordia University; J.D., Marquette University.

Reed, Ashante S.

Barbering/Cosmetology, Licensed Manicurist; Certified Manicuring Instructor.

Reilly, Rupert A.

Police Technology, B.S., John Jay College of Criminal Justice.

Reyes, Eugene J.

Police Technology, B.A., University of Wisconsin – Madison.

Sanders, Diane P.

Barbering/Cosmetology, A.A.S., B.S., M.S.M., Cardinal Stritch University; Licensed Cosmetologist; Certified Cosmetology Instructor.

Schauf, Gabriel M.

Funeral Services, B.S., University of Minnesota; M.B.A., University of Phoenix.; Licensed Funeral Director.

Schrader, Matthew R.

Emergency Medical Services, A.A.S., Milwaukee Area Technical College; B.A., University of Wisconsin - Milwaukee; EMT-Paramedic.

Stubenrauch, Julie A.

Barbering/Cosmetology, A.A.S., Milwaukee Area Technical College; Licensed Cosmetologist; Certified Cosmetology Instructor.

Tandon, Sucharita

Environmental Health, B.S., M.Sc., Chhatrapati Shahu Ji Maharaj University; Ph.D., Bangalore University

Sujecki, Michael J.

Paralegal, B.A., Marquette University; J.D., John Marshall Law School.

Toor, Gurkirat

Emergency Medical Services, A.A.S., American River College; B.S., Mercy College of Health Sciences; Licensed Paramedic; Certified EMS Instructor I.

Tripi, Linda M.

Interpreter Technician, A.A.S., Milwaukee Area Technical College; B.S., M.S., University of Wisconsin – Milwaukee.

Walker, Kara K.

Barbering/Cosmetology, Cardinal Stritch University; M.A., Alverno College; Licensed Cosmetologist; Certified Cosmetology Instructor.

Ward, Kanika J.

Barbering/Cosmetology, B.S. Tuskegee University, M.B.A., University of Wisconsin – Milwaukee; Licensed Aesthetician; Certified Aesthetics Instructor.

Wellington, Domaz O.

Human Services, B.S., University of Wisconsin – Milwaukee; M.A., Northern Illinois University.

Wowerat, Friedericke

Barbering/Cosmetology, Licensed Cosmetologist; Certified Cosmetology Instructor.

Zarate, Victor X.

Barbering/Cosmetology, Apprenticeship, Milwaukee Area Technical College; Licensed Barber; Certified Cosmetology Instructor.

Employer & Community Education

Isahaku, Sadique

Dean, Employer & Communication Pathway, B.S., Ahmadu Bello University, Zaria, Nigeria; B.A., M. Phil., University of Tromsø, Norway; Ph.D., Norwegian University of Science & Technology, Trondheim, Norway.

Alvarado, Nora V.

English-Bilingual, B.S., M.A., Ph.D., University of Wisconsin – Milwaukee.

Anthony, Steven Andre

History B.A., University of Arkansas – Little Rock; M.B.A., Cardinal Stritch University; Ph.D., University of Wisconsin – Milwaukee.

Beznik Frieseke, Anastasia C.

Mathematics, B.S., University of Wisconsin – Milwaukee; M.S., Capella University.

Bodden, Jacob.

English as a Second Language, B.S., University of Wisconsin – Milwaukee; M.S., Capella University.

Boulaleh, Fouad

Mathematics B.S., Milwaukee School of Engineering; M.S., Cardinal Stritch.

Bourkadi, Samira Z.

English-Bilingual, B.A., University of Tromsø, Norway; M.Ed., American College of Education

Bromwell, Mary E.

English as a Second Language, B.A., Carroll University; M.A., University of Delaware.

Browning, Elizabeth

English as a Second Language, B.A., University of Wisconsin – Eau Claire; M.A.T., School for International Training.

Burgos Rivera, Rafael.

GED/HSED Communication, B.A., Lakeland College; M.A., Edgewood College.

Burns, Gary C.

English, B.A., Clarke College; J.D., Drake University.

Burton, Larry G.

Office/Systems Technology, A.A., Bryant & Stratton Business College; B.A., Lakeland College; M.S., Cardinal Stritch University.

Carter, Gwendolyn E.

Mathematics, A.A.S., Milwaukee Area Technical College; B.A., Concordia University Wisconsin; M.B.A., Cardinal Stritch University.

Chevalier, Courtney G.

Mathematics, B.S., Syracuse University; M.A.Ed., Lehman University.

Cornelius, Derick

Communication, B.A., Concordia University Wisconsin; M.A., Alverno College.

Doll, Giovanna

Mathematics, B.A., Lakeland College.

Ellsworth, Gail K.

English as a Second Language, B.S., University of Wisconsin – Eau Claire; M.A., Hamline University.

Estes-Earl, Joann

Reading, B.S., M.A., University of Phoenix.

Everett, Mia L.

Science, A.A.S., Milwaukee Area Technical College; B.S.N., Marquette University; M.S.N., University of Wisconsin – Milwaukee.

Fabian-Albert, Lisa C.

English as a Second Language, B.S., University of Wisconsin – Oshkosh; M.S.E., University of Wisconsin – Whitewater.

Gall, Julie A.

English, B.A., M.A., Cardinal Stritch University.

Ginster, Tammy M.

English as a Second Language, B.A., M.A., University of Wisconsin – Milwaukee.

Gottwald, Heidi L.

English as a Second Language, B.S.E, University of Wisconsin Whitewater; M.S. Edgewood College.

DIRECTORY OF CREDENTIAL INFORMATION

Grobschmidt, Tamara A.

English as a Second Language, B.A., University of Wisconsin – Madison.

Hansen Cardona, Laurie E.

English as a Second Language, B.A., Marquette University; M.S., University of Wisconsin – Milwaukee.

Hein-Paredes, Carrie A.

English as a Second Language, B.A., University of Wisconsin – Green Bay; M.S., University of Wisconsin – Milwaukee.

Helland, Erin Lynn.

English as a Second Language, B.A., Hamline University; M.A., Hamline University.

Hines, Elaine

Office/Systems Technology, A.A.S., Milwaukee Area Technical College; B.A., Alverno College; M.B.A., Concordia University.

Hofmann-Larsen, Maren J.

English as a Second Language, B.A., University of Wisconsin – Madison; M.A., University of Wisconsin – Milwaukee.

Jefferson, Diane

English, B.S., University of Wisconsin – Milwaukee; M.A., Ph.D., Cardinal Stritch University.

Jefferson-Ganya, Mary J.

Mathematics, A.A.S., Milwaukee Area Technical College; B.S., Marquette University; B.S.N., University of Wisconsin – Milwaukee; M.Ed., American College of Education.

Joachim, Thomas R.

Science, B.S., University of Wisconsin – Whitewater; M.S., Concordia University.

Karnowski, Richard P.

Reading, B.S., University of Wisconsin – Milwaukee; M.S., Concordia University Wisconsin.

Kaye, Catherine J.

English as a Second Language, B.A., University of Wisconsin – Madison; M.A., University of Illinois – Chicago.

Khang, Pao

Mathematics, B.A., M.S., Cardinal Stritch University.

Kis, Stephen C.

English as a Second Language, B.A., University of Wisconsin – Parkside; M.A., University of Minnesota.

Krull, Michael J.

English as a Second Language, B.A., University of Wisconsin – Milwaukee; M.Ed., Carroll University.

Landon, Darice M.

English, B.A., Drake University.

Lavin, Charles O.

English as a Second Language, B.A., B.S., Florida State University; M.A., University of Wisconsin – River Falls.

Lehmann, Joy A.

English as a Second Language, B.A., New York University; M.A., The New School.

Mulvenna, Kelly A.

English, B.A., Carthage College; M.A., Mount Mary College.

Nason, Carolyn V.

English as a Second Language, B.S., University of Wisconsin – La Crosse; M.A., University of Wisconsin – Milwaukee.

Omari, Bara S.

English as a Second Language, B.A., M.A., TESOL Certificate; University of Wisconsin – Milwaukee.

Peppers, Rosalind L.

Science, A.A.S., Milwaukee Area Technical College; B.A., Cardinal Stritch University; M.S., University of Saint Joseph.

Petterson, Ines M.

Mathematics - Bilingual, B.B.A., Universidad Santiago de Cali, Colombia; M.S., Cardinal Stritch University.

Reed, Jacquelyn N.

Mathematics, B.A., Alverno College; M.S., Capella University.

Richardson, Tatyana N.

English, B.A., Marquette University; M.Ed., University of Oklahoma.

Sykes, Mernathan M.

English, B.S., Chicago State University; M.S., University of Wisconsin – Milwaukee; D.E., Gwynedd Mercy University.

Tateoka, Thomas J.

Mathematics, A.A.S., Ricks College; A.A.S., Milwaukee Area Technical College; B.A., B.S., Utah State University.

Thielen, Holly A.

Mathematics, B.S., University of Wisconsin – Milwaukee; M.S., University of St. Francis.

Vanderhoof, Maureen E.

English as a Second Language, B.A., University of Wisconsin – Milwaukee; M.Ed., University of Maryland.

Weisenburger, Kristi M.

English as a Second Language, B.A., St. Norbert College; M.A., University of Wisconsin – Milwaukee.

Wierschke, Jolene E.

English as a Second Language, B.A., Wartburg College; M.A., University of Wisconsin – Madison.

Wolters, Estelle.

English as a Second Language, B.S., University of Wisconsin – Madison; M.S., University of Wisconsin – Madison.

Creative Arts, Design & Media Faculty

Sitte, Mike

Dean, Creative Arts, Design & Media Pathway, A.A.S., Northeast Wisconsin Technical College; B.S., University of Phoenix; M.A., Lakeland University; Ph.D., Cardinal Stritch University.

Alston, Jason

Culinary Arts, A.A.S., Milwaukee Area Technical College; B. S. Cardinal Stritch University; Serve Safe Certified.

Anderson, Michael J.

Visual Communications, A.A.S., Milwaukee Area Technical College.

Baumann, Holly

Baking & Pastry Arts A.A.S., Milwaukee Area Technical College; Serve Safe Certified.

Berett, Christopher

Animation, B.F.A., University of Wisconsin – Eau Claire.

Bergner, Mark S.

Television and Video Production, B.A., University of Wisconsin – Madison.

Brown, Daniel

Television and Video Production, B.A., Indiana University – Bloomington.

Brzinski, Christopher M.

Graphic Design, B.S., M.S., University of Wisconsin – Stout.

Carrier, Paul

Culinary Arts, Technical Diploma, 916 Vocational Technical Institute; A.A.S., B.S., University of Minnesota – Crookston; M.S., University of Wisconsin – Stout; ACF Certified Executive Chef; Certified Food and Beverage Executive.

Clark, Michael D.

Culinary Management, A.A.S., Waukesha County Technical College; B.A., St. Norbert College.

Decker, Timothy W.

Animation, B.F.A., California Institute of Arts.

DenDooven, Kathryn L.

Web and Digital Media Design, B.F.A., University of Wisconsin – Whitewater.

Dubinsky, Darin J.

Photography, A.A.S., Milwaukee Area Technical College.

Evans, Michelle M.

Baking & Pastry Arts, A.O.S., New England Culinary Institute.

DIRECTORY

Fogle, Kurt R.

Baking & Pastry Arts, A.A.S., Milwaukee Area Technical College.

Garza, Antonio

Web and Digital Media Design, A.A.S., Milwaukee Area Technical College; B.F.A., University of Wisconsin – Milwaukee; M.S., Capella University.

Genrich, Adam C.

Culinary Arts, A.A.S., Milwaukee Area Technical College; B.A., Valparaiso University.

Glembin, John R.

Photography, B.F.A., Ohio University.

Harmsen, Emil A. Jr.

Visual Communications, A.A.S., Milwaukee Area Technical College, B.S., Cardinal Stritch University.

Highway, Robbi A.

Music, B.M., University of Wisconsin – Oshkosh; M.M., University of Wisconsin – Madison.

Hill, Lauren.

Television and Video Production, B.A., Indiana University.

Horne, Aaron V.

Audio Production, B.M.E., Arkansas Tech University; M.M., Southern Utah University.

Jambura, Andrew

Audio Production, B.A., Saint Mary's University of Minnesota.

Kaestner, Jack R.

Culinary Arts, B.S., University of Wisconsin – Madison; A.O.S., Culinary Institute of America.

King-Smith, Theodore R.

Audio Production, B.M.E., University of Hartford; M.A., Washington State University; D.M.A., University of Missouri – Kansas City.

Lagrange, Susan M.

Web and Digital Media Design, B.F.A., University of Wisconsin – Whitewater; M.S., Carroll University.

Meersman, Jonathan

Web and Digital Media Design, B.A., University of Cincinnati; M.B.A., University of Phoenix.

Mennenoh, Brian P.

Animation, B.F.A., University of Wisconsin – Eau Claire.

Miller, Harold L.

Music, B.F.A., University of Wisconsin – Milwaukee; M.M., Wisconsin Conservatory of Music.

Peplin, Stephen W.

Music, A.A.S., Milwaukee Area Technical College, B.M., Berklee College of Music.

Philaja, Molly A.

Interior Design, B.S., University of Wisconsin – Stevens Point.

Pulz, Kevin F.

Television and Video Production, B.A., Marquette University; M.A., William Paterson College of New Jersey.

Quinn, Brian

Culinary Arts, A.A.S., Johnson & Wales University; B.A., University of Wisconsin – Madison.

Schank, Tiffany Pua

Television and Video Production, B.A., Benedictine University; M.A., Marquette University.

Schneider, Andrew J.

Baking & Pastry Arts, A.A.S., Milwaukee Area Technical College; Apprenticeship.

Skaja, Joel C.

Graphic Design, B.F.A., Milwaukee Institute of Art & Design.

Smallish, Craig M.

Graphic Design, Diploma, Milwaukee Institute of Art and Design; M.A., Syracuse University.

Smith, Matthew B.

Audio Production, A.S., Full Sail University.

Sun, Tairan

Graphic Design, A.S., Tianjin University of Commerce, China; MDes., Illinois Institute of Technology.

Swanson, Seth D.

Computer Simulation & Gaming

Wallace, Elizabeth

Music, B.S.E., Martin Luther College.

Walgren, Mary C.

Interior Design, B.A., Mount Mary College; M.S., Concordia University.

Wernette, Gary R.

Television and Video Production, B.S., University of Wisconsin – La Crosse.

General Education Faculty

Isahaku, Sadique

Dean, General Education Pathway, B.S., Ahmadu Bello University, Zaria, Nigeria; B.A., M. Phil., University of Tromsø, Norway; Ph.D., Norwegian University of Science & Technology, Trondheim, Norway.

Allen, Carolyn A.

Reading, B.S., Miles College; M.E., National-Louis University.

Allen, John N.

English, B.A., St. Norbert College; M.A., Marquette University; Ph.D., University of Wisconsin – Milwaukee.

Baltus-Quist, Linda M.

English, B.A., University of Wisconsin – Stevens Point; M.S., University of Wisconsin – Oshkosh.

Basabe, Angel R.

Social Science, B.S., Carroll College; M.S.W., University of Wisconsin – Milwaukee; M.S., Cardinal Stritch University.

Berg, Patricia J.

Mathematics, B.A., Macalester College; M.S., Montana State University.

Berns, Andrew R.

Social Science, B.S., M.S., M.B.A., University of Wisconsin – Madison, Ph.D., University of Wisconsin – Milwaukee.

Boone, Tamika K.

Reading, B.S., M.S., University of Wisconsin – Milwaukee; Ph.D., Cardinal Stritch University.

Bovee, Marianne F.

Social Science, B.A., M.A., Marquette University; B.A., University of Iowa; M.A., University of Wisconsin – Milwaukee.

Brown, Nakeesha N.

Speech, B.A., M.S., University of Wisconsin – Whitewater; M.Div., Central Baptist Theological Seminary.

Calvin, Willette D.

English, B.A., Carroll College; M.A., University of Arizona.

Clark, Traci L.

English, B.A., Marquette University; M.A., University of Wisconsin – Milwaukee.

Clohessy, Ronald J.

English, A.A.S., B.A., College of Staten Island – City University of New York; M.A., Ph.D., University of Wisconsin – Milwaukee.

Connelly, Mark

English, B.A., Carroll College; M.A., Ph.D., University of Wisconsin – Milwaukee.

Cross, Vida

Communication Skills, B.A., Knox College; M.A., Iowa State University; M.F.A., School of Art Institute of Chicago.

De Silva, Rohan T.

Social Science, B.S.E., Concordia Teachers College; B.A., M.A., University of Illinois at Chicago; M.A., Ph.D., Northwestern University.

Dockery, Milton F.

History, B.A., M.A., North Carolina Central University.

Doll, Giovanna

Mathematics, B.A., Lakeland College.

Ellis-Gordon, Angela N.

Reading, A.A.S., Milwaukee Area Technical College; B.S., M.S., University of Wisconsin – Milwaukee.

Erickson, Kate L.

History, B.A., M.A., University of Wisconsin – Milwaukee.

DIRECTORY OF CREDENTIAL INFORMATION

Gandy-Johnkin, Shanda L.

English, B.S., Alabama State University; M.S.E., National-Louis University.

Gebhard, David D.

Mathematics, B.S., University of Dayton; Ph.D., Michigan State University.

Geddes, Lori A.

Economics, B.S., University of Wisconsin – Whitewater; M.A., Ph.D., Holloway University of Wisconsin – Milwaukee.

Gensrick, Julie M.

Mathematics, B.S., University of Wisconsin – Oshkosh; M.A., University of Wisconsin – Madison; M.A.T., University of Idaho.

Goodrich, Suzanne M.

Social Science, B.A., M.Ed., Marquette University.

Hagedorn, Eric A.

Mathematics, B.S., Pennsylvania State University; M.S., Ph.D., University of Wisconsin – Milwaukee.

Hartley Omholt, Melissa

Art, B.A., M.A., University of Wisconsin – Milwaukee.

Holloway, Chuckson D.

Social Science, B.A., University of Wisconsin – Milwaukee; M.A., University of Chicago; Ph.D., University of Wisconsin – Milwaukee.

Hugdahl, Lisa D.

Mathematics, B.A., M.S., University of Wisconsin – Milwaukee.

Hughes, Nina

Social Science, B.A., Alverno College; M.S., Psy.D., Wisconsin School of Professional Psychology.

Hunnicutt, J. C.

Social Science, B.A., B.A., Arizona State University; M.Ed., M.A., Northern Arizona University.

Imperiale, Joseph S.

English, A.A., University of Wisconsin Colleges – Waukesha; B.S., University of Wisconsin – Oshkosh; M.A., M.F.A., Chapman University.

Lipsey-Brown, Talonda M.

Teacher Education, B.S., Marquette University; M.S., Ph.D., University of Wisconsin – Milwaukee.

Madlock-Gatison, Annette

Speech, A.A.S., Milwaukee Area Technical College; B.A., M.A., Bel University; Ph.D., Howard University.

Magner, Clement L.

Social Science, B.S., Loras College; M.S., University of Wisconsin – Milwaukee; Ed.D., Nova University.

Marth, Becky A.

Social Science, B.A., M.A., University of Wisconsin – Milwaukee.

Martinez, Amarilis

English, B.A., Marquette University; M.A., Mount Mary College.

Masri, Asma H.

Social Science, B.A., University of Jordan, Jordan; M.S., Ph.D., University of Wisconsin – Milwaukee.

McKinney, MarQulyn M.

English, B.S., Cardinal Stritch University; M.A., University of Phoenix; M.A., Northern Arizona University.

Michels, David P.

Foreign Language-Spanish, B.A., M.A., University of Wisconsin – Milwaukee.

Mirhoseini, Michelle D.

Social Science, A.A.S., Milwaukee Area Technical College; B.A., Mount Mary College; M.S., Psy.D., Wisconsin School of Professional Psychology.

Muirhead, Jacqueline

Foreign Language - Spanish, B.A., University of Wisconsin - Eau Claire; M.S., University of Wisconsin - Milwaukee.

Muirhead, Pablo B.

Foreign Language-Spanish, B.A., University of Wisconsin – Eau Claire; M.S., Ph.D., University of Wisconsin – Milwaukee.

Nchinda, Zacharia N.

History, B.A., Universite de Yaounde, Cameroon; M.A., Ph.D., University of Wisconsin – Milwaukee.

Nusser, Susan.

English, B.A., Boston University; M.F.A., Emerson College.

O'Brien, B Marco

Social Science, B.A., M.S., University of Wisconsin – Superior; Ph.D., Marquette University.

Omari, Samih M.

Mathematics, B.S., B.A., M.S., University of Wisconsin – Milwaukee; M.S., Milwaukee School of Engineering.

OmniEssence, Kimberly T.

Speech, A.A., Copper Mountain College; B.S., Regent University; M.A., Marist College.

Odracic, Liana

English, B.A., Notre Dame University; M.A., Ph.D., University of Wisconsin – Milwaukee.

Patterson-Iyasele, Alkatrine

Mathematics, A.A.S.; B.S., Milwaukee School of Engineering; M.S., Alabama State University.

Pileggi, Robert J.

Mathematics, B.S., M.S., University of Wisconsin – Whitewater; M.S., Marquette University.

Reeves-Hill, Meredith K.

Reading, B.A., University of Wisconsin – Milwaukee; M.A., M.S., M.A., Cardinal Stritch University; Ph.D., Northcentral University.

Robinson, Jacqueline

Social Science, B.A., Florida State University; M.L.S., M.S., Ph.D., University of Wisconsin – Milwaukee.

Rubenkov, Marina V.

Social Science, Diploma, Southern Institute of Management – Russia; M.A., Ph.D., University of Wisconsin – Milwaukee.

Ruszkiewicz, David J.

Mathematics, B.S., M.S., University of Wisconsin – Milwaukee.

Safina, Salvatore N.

English, B.A., M.A., University of Wisconsin – Milwaukee.

Salm, Andrew J.

Physical Education, B.A., Millikin University; M.A., Northeast Missouri State University.

Scott, Charysse N.

Mathematics, B.A., City University of New York; M.A., City College of New York.

Sieger, Katherine

Social Science, B.A., Mount Mary University; M.A., University of Cincinnati; Ph.D., Syracuse University.

Sosa, Luz

Economics, B.A., M.S., Marquette University.

Stern, Elizabeth M.

Social Science, B.S., Bradley University; M.S., Capella University.

Stiemke, Bonnie

Speech, B.A., M.A., University of Wisconsin – Milwaukee.

Tamanji, Asenju C.

Social Science, B.S., University of Wisconsin – Stevens Point; M.S., University of Wisconsin – Milwaukee; Ph.D., Loyola University – Chicago.

Tipton, Marica S.

Social Science, B.A., Marquette University; M.S., Ph.D., University of Wisconsin – Madison.

Townsend, Daana D.

Social Science, B.A., M.S., University of Wisconsin – Milwaukee.

Varley, Anna H.

English, B.A., University of Michigan; M.A., University of New Hampshire; M.A., Ph.D., University of Arizona.

Vasquez, Maria C.

Mathematics, B.S., Marquette University; M.Ed., American College of Education.

Vollman, Thomas J.

English, B.A., Marquette University; M.L.S., Ph.D., University of Wisconsin – Milwaukee.

Wiedmann, Lorna R.

English, B.A., University of Wisconsin – Whitewater; M.A., Ph.D., University of Wisconsin – Madison.

DIRECTORY

Xue, Yong

Physics, B.A., Sichuan University; M.S., Ph.D., University of Illinois at Chicago.

Zellmer, Jill M.

English, B.A., University of Wisconsin – Madison; M.A., Ph.D., University of Wisconsin – Milwaukee.

Healthcare Faculty

Gass, Eric T.

Dean, Healthcare Pathway, B.S., University of Wisconsin – Green Bay; M.S., Purdue University; Ph.D., University of Wisconsin – Milwaukee.

Alva, Lynne

Dental Hygiene, A.A.S., Waukesha Community Technical College; B.S., University of Minnesota – Mankato; M.S., University of Wisconsin – Milwaukee; Registered Dental Hygienist.

Andersen, Heather C.

Nursing, B.S.N., Milwaukee School of Engineering; M.S.N., Herzog University; Ed.D., Ed.L., Alverno College; Registered Nurse.

Anderson, Debra A.

Nursing, A.D.N., Moraine Park Technical College; B.S., Marian University; M.S., Concordia University; Registered Nurse.

Anderson, Rebecca.

Nursing, B.S.N., Marian University; M.S.N., University of Phoenix; Registered Nurse.

Anglin, Ashanti

Nursing Assistant, A.S., B.S., Cardinal Stritch University; MSN., Capella University; Registered Nurse.

Badani, Karim M.

Surgical Technologist, A.A.S., Milwaukee Area Technical College; B.A., University of Wisconsin – Milwaukee; B.S.N., University of Wisconsin – Oshkosh; Certified Surgical Technologist; Registered Nurse.

Balestreri, Brittany.

Nursing, B.S., The College of Saint Scholastica; M.S., Cardinal Stritch University; Registered Nurse.

Balistreri, Patricia L.

Nursing, Diploma, A.D.N., Western Wisconsin Technical College; M.S.N., Master's Certificate, Walden University; Registered Nurse.

Baman, Smita

Nursing Nursing Diploma, Vanier College; B.S.N., University of Ottawa; M.Sc., Queen's University; Registered Nurse.

Bazan, Jason

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.S., Cardinal Stritch University; Certified Respiratory Therapist; Registered Respiratory Therapist.

Beck, Darlene C.

Nursing, Diploma, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Concordia University Wisconsin; D.N.P., University of Alabama; Registered Nurse; Licensed Advanced Practice Nurse Prescriber; Adult Gerontology Primary Care Nurse Practitioner Board Certified.

Booth, Yolanda

Nursing A.A.S., Milwaukee Area Technical College; B.S.N., Concordia University; M.S.N., Chamberlain University; Registered Nurse.

Bonham, Christina

Diagnostic Medical Sonography A.A.S., William Rainey Harper College; Registered Diagnostic Medical Sonographer (AB, OB/GYN) and Registered Vascular Technologist (VT).

Brachmann, Elizabeth

Nursing, B.S.N., M.S.N., Marian University; Registered Nurse; ANCC – Cardiac-Vascular Nursing RN-BC.

Broadwell, Shayne

Enhanced Yoga Instructor, A.A.S., Bryant & Stratton; B.A., University of Wisconsin – Madison; Yoga Alliance E-RYT 500; Physical Therapist Assistant (PTA).

Broetzmann, Amy

Surgical Technologist, A.A.S., Waukesha County Technical College; B.S., Wisconsin Lutheran College; Certified Surgical Technologist.

Brower, Diane S.

Radiologic Technology, B.S., University of St. Francis; M.Ed., Concordia University; Licensed Radiographer; Registered Radiologic Technologist.

Caballero, Michael R.

Nursing Assistant, B.S.N., Cebu Doctors' University; Registered Nurse.

Caballero, Noel L.

Nursing, B.S.N., Cebu City Medical Center School of Nursing; M.S.N., Cebu Normal University; Registered Nurse; Certified Nurse Educator.

Cain, Angeline

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Concordia University; Registered Nurse.

Carsen, Roberta L.

Dental Hygiene, A.A.S., Milwaukee Area Technical College; B.A., Concordia University; Registered Dental Hygienist.

Christman, Michael E.

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – Milwaukee; Certified Respiratory Therapist; Registered Respiratory Therapist.

Church, Bradley L.

Clinical Laboratory Technician, A.A.S., Western Technical College; B.S., University of Wisconsin – Milwaukee; ASCP Medical Laboratory Scientist.

Cooper, Shayna Lynn.

Nursing, A.A.S., Madison Area Technical College; B.A., Coe College; M.S., Capella University.

Cordova, Norma K.

Dental Assisting, Surgeon Dentist, Endodontic Specialist, Universidad de Guadalajara; Certified Dental Assistant; Registered Dental Hygienist.

Crowe, Wendy S.

Health Information Technology, A.A.S., Western Wisconsin Technical College; B.S., University of Wisconsin – Stout; Registered Health Information Administrator.

Del Valle, Maria

Nursing Assistant, A.A.S., Milwaukee Area Technical College; B.S.N., Marian University; M.E., National Louis University; Registered Nurse.

DeNomie, Melissa

Community Health and Nutrition, B.A., University of Wisconsin – Madison; M.S., Ph.D., University of Wisconsin – Milwaukee.

Drumel, Lisa C.

Dental Hygiene, B.S., Marquette University; Registered Dental Hygienist.

Ebben, Laura A.

Health, B.S., University of Wisconsin – Milwaukee; M.A., Cardinal Stritch University; Registered Nurse.

Echols, Alena L.

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., University of Wisconsin – Milwaukee; M.S.N., University of Phoenix; Registered Nurse.

Edmonds, Bryan Q.

Medical Assistant, B.A., Ottawa University; M.B.A., Cardinal Stritch University; Registered Medical Assistant.

Emmerich, Jason

Radiologic Technology, B.B.A., University of Wisconsin – Milwaukee; Licensed Radiographer; Registered Radiologic Technologist.

Estrada, Fabiola

Medical Assistant, A.S., Bryant & Stratton College; B.A., Mount Mary University; Certified Medical Assistant.

Etes, Amanda J.

Cardiovascular Technology, A.A.S., Spokane Community College; B.S., Washington State University; Registered Advanced Cardiac Sonographer.

Flaherty, Patrick

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Grand Canyon University; Registered Nurse.

Fraser, Angela

Radiologic Technology, A.A.S., Milwaukee Area Technical College; B.S., Patten University; M.H.L., Western Governors University; Licensed Radiographer; Registered Radiologic Technologist.

DIRECTORY OF CREDENTIAL INFORMATION

Garcia-Borst, Misty

Nursing, B.S.N., M.S.N. Chamberlain University; Registered Nurse.

Garcia Sanchez, Rebecca A.

Healthcare Services Management, B.A., University of Wisconsin – Milwaukee; M.B.A., Concordia University Wisconsin; PhD, Marquette University.

Gastrau, Karen L.

Nursing, B.S.N., Bradley University; M.S.N., Marquette University; Licensed Advanced Practice Nurse Prescriber; Registered Nurse; Certified Adult Nurse Practitioner.

Gilbert, Karyn F.

Nursing, B.S.N., Alverno College; M.S.N., M.B.A., University of Wisconsin – Milwaukee; Registered Nurse.

Gorenc, Louise M.

Nursing, B.S.N., University of Wisconsin – Milwaukee; M.S.N., Concordia University; Registered Nurse.

Guenther, Lori E.

Nursing, B.S., University of Wisconsin – La Crosse; B.S.N., Alverno College; M.S.N., University of Phoenix; Registered Nurse.

Gustafson, Lisa M.

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.A., Ottawa University; Certified Respiratory Therapist; Registered Respiratory Therapist.

Haldemann, Karen

Dental Hygiene, A.A.S., Milwaukee Area Technical College; B.S., Minnesota State University; M.S., Purdue University; Registered Dental Hygienist.

Heim, Kim A.

Nursing, A.A.S., Cardinal Stritch University; B.S.N., M.S.N., Concordia University; Registered Nurse; Certified Geriatric Nurse Practitioner (American Nurses Credentialing Center); Licensed Advanced Practice Nurse Prescriber.

Hickman-Meyer, JoyAnne.

Nursing Assistant, A.A.S., Moraine Park Technical College;

Hilliard, Latonia D.

Nursing, A.D.N., Waukesha County Technical College; B.S.N., Cardinal Stritch University, M.S.N, Western Governors University; Registered Nurse.

Honeysucker, Darlene

Nursing, A.S.N., Cardinal Stritch University; B.S.N., Concordia University; M.S.N., Walden University; Registered Nurse.

Howell, Viola

Nursing Assistant, Technical Diploma, A.A., Gateway Technical College; B.S.N., Alverno College; Registered Nurse.

Hughes, Rachel A.

Dietary Manager, B.S., University of Wisconsin – Stevens Point; M.S., Mount Mary College; Certified Dietician; Registered Dietician

Hutsick, Julie

Nursing, B.S.N., Alverno College; M.S.N., Herzog University; Registered Nurse.

Jagodinsky, Kendyl

Dental Hygiene, A.D., Northeast Wisconsin Technical College; B.S., Oregon Institute of Technology; Registered Dental Hygienist; Certified Laser Assisted Periodontal Therapy; Certified Local Anesthesia and Nitrous Oxide.

Johnson, Tomisha

Dental Hygiene, B.S., Marquette University; M.B.A., University of Phoenix; Registered Dental Hygienist.

Kalluvila, Rachana T.

Health, B.S., University of Wisconsin – Milwaukee; M.P.H., American Public University, Registered Medical Assistant.

Katte, Heidi L.

Dietetic Technician, B.S., University of Wisconsin – Green Bay; M.S., Mount Mary College; Certified Dietitian; Registered Dietitian; Fellow of Academy of Nutrition and Dietetics.

Keihl, Samantha

Cardiovascular Technology, A.A.S., Milwaukee Area Technical College; B.S., Southern New Hampshire University; Registered Cardiovascular Technology Invasive Specialist.

Kent, Victoria A.

Nursing, B.S.N., Alverno College; M.S.N. Kaplan University; Registered Nurse.

Kong, Wendy

Cardiovascular Technology, B.S., University of Wisconsin – Milwaukee; M.S., Concordia University; Registered Diagnostic Cardiac Sonographer Adult and Pediatric Echo.

Kunicki, Mary J.

Surgical Technologist, B.A., Mount Mary College; Certified Surgical Technologist; Certified Registered Central Service Technician.

Lacy, Dana K.

Occupational Therapy Assistant, B.S., M.S., University of Wisconsin – Milwaukee; Certified and Licensed Occupational Therapist.

Larson, Jennifer J.

Nursing, B.S.N., University of Wisconsin – Milwaukee; M.S.N., Concordia University; Registered Nurse.

Larson, Jeremy.

Anatomy & Physiology B.S., Carroll University; M.S., University of Wisconsin – Milwaukee.

Lockbaum, Tina

Diagnostic Medical Sonography, A.A.S., Argosy University; B.S., Moorhead State University; Registered Diagnostic Medical Sonographer (AB,OB/GYN, BR) and Registered Vascular Technologist (VT).

Lucas, Jennifer

Pharmacy, B.S., University of Wisconsin – Madison; PharmD, Midwestern University; Registered Pharmacist.

Mansfield, Paul J.

Physical Therapist Assistant, B.S., M.P.T., Marquette University; D.P.T., College of Saint Scholastica; Licensed Physical Therapist.

Marbley, Diana T.

Nursing, A.S.N., B.S.N., Cardinal Stritch University; M.S.N., University of Phoenix; Registered Nurse.

McDermott, Sara J.

Medical Assistant, B.A., University of Wisconsin – Parkside; Registered Medical Assistant.

McKennie, Stephanie W.

Nursing, B.S.N., University of Alabama; M.S., University of Maryland, Baltimore; Ph.D., Northcentral University; Registered Nurse.

McKinney, Ruthell R.

Nursing Assistant, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., D.N.P., University of Wisconsin – Milwaukee; Registered Nurse.

Meyer, JoyAnne

Nursing Assistant, A.A.S., Moraine Park Technical College; Certified CNA Train-the Trainer; Registered Nurse.

Miller, Kristen L.

Simulation Coordinator, Nursing, B.S., Winona State University; M.S.N. Concordia University; Registered Nurse.

Miller, Shelly

Dental Hygiene, B.S., Marquette University; B.S., University of Wisconsin - Milwaukee; M.S. Concordia University; Registered Dental Hygienist.

Morgan, Jennifer M.

Nursing, B.S., University of Wisconsin – Milwaukee; M.S.N., Concordia University Wisconsin; Registered Nurse.

Morley, Tonia M.

Dental Hygiene, B.S., University of Minnesota; M.S., University of Wisconsin – Milwaukee; Registered Dental Hygienist.

Nfor, Quinta

Nursing, A.S.N., Minneapolis Community and Technical College; B.S.N., University of Wisconsin – Milwaukee; M.S.N., Maryville University; D.N.P., University of North Florida; Registered Nurse.

Nguyen, Nhat

Pharmacy, PharmD, University of Wisconsin - Madison; Registered Pharmacist.

Nicol, Allison A.

Nursing, A.A.S., Milwaukee Area Technical College; B.B.A., University of Wisconsin – Milwaukee; B.S.N., Marian University; M.S.N., Concordia University; Ph.D., Northcentral University; Certified Nurse Educator; Registered Nurse.

DIRECTORY

Nienhuis, Cynthia L.

Dental Hygiene, Diploma, Blackhawk Technical College; A.A.S., Madison College; A.A.S., University of Wisconsin – Rock County; B.S., University of Wisconsin – Madison; M.A. Ed., National Louis University; Registered Dental Hygienist.

Ostrander, Wendy G.

Health Information Technology, B.S., Ferris State University; M.S., Kent State University; Registered Health Information Administrator.

Paasewe, Dahlene B.

Medical Assistant, B.S., Cuttington University College; M.B.A., Keller Graduate School of Management; M.D., A.M. Dogliotti College of Medicine, University of Liberia; Registered Medical Assistant.

Pano, Christina S.

Respiratory Therapist, A.A.S., Milwaukee Area Technical College; B.A., M.A. Ed., Ottawa University, Registered Respiratory Care Practitioner.

Pietrzak, Joelle

Clinical Laboratory Technician, B.S., Marquette University; ASCP Board Certified.

Pitz, Holly

Physical Therapist Assistant, B.S., University of Wisconsin – Madison; M.S., University of Wisconsin – La Crosse; D.P.T. University of Montana; Licensed Physical Therapist.

Radulovic, Tatyana T.

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., Chamberlain University; M.S.N., Concordia University; Registered Nurse; Advanced Practice Nurse Prescriber – Board Certified.

Ramos, Rodney E.

Medical Interpreting, B.A., University of Wisconsin – Parkside.

Redmond, Melba L.

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Concordia University; Registered Nurse.

Rettler, Renee

Occupational Therapy Assistant, B.S., M.S., University of Wisconsin – Milwaukee; Licensed Occupational Therapist.

Rice, James R.

Nursing, A.D.N., Southwest Wisconsin Technical College; B.S., M.S.N., D.N.P., Concordia University; Registered Nurse; Advanced Practice Nurse Prescriber; Family Nurse Practitioner.

Riese, Diane

Surgical Technology, A.A.S., Milwaukee Area Technical College; B.A., University of Wisconsin – La Crosse; Certified Surgical Technologist.

Rodriguez, Maria Cristina

Dental Assisting, Surgeon Dentist, Universidad de Guadalajara; M.S., Cardinal Stritch University; Certified Dental Assistant.

Rojas, Mario A.

Nursing, B.S.N., M.S.N., University of Wisconsin – Milwaukee; Registered Nurse.

Ross, Shelby M.

Anesthesia Technology, A.A.S., Milwaukee Area Technical College; Certified Anesthesia Technologist.

Schlund, Dwayne M.

Respiratory Therapist, B.A., University of Wisconsin – Whitewater; M.A. Ed., Ottawa University; Certified Respiratory Therapist; Registered Respiratory Therapist.

Shumpert, Jill L.

Renal Dialysis, Diploma, Milwaukee Area Technical College; Certified Renal Dialysis Technician.

Silva, Betzaida

Dietetic Technician, B.S., University of Puerto Rico; M.S., Mount Mary College; Registered Dietitian Nutritionist (R.D.N.); Certified Dietitian (CD - Wisconsin); Licensed Dietitian Nutritionist (L.D.N. - Puerto Rico).

Simenz, Stacy L.

Nursing, B.S.N., Viterbo University; M.S.N., D.N.P., Marquette University; Registered Nurse; Certified Adult Nurse Practitioner; Licensed Advanced Practice Nurse Prescriber.

Skenandore, Kristine R.

Radiologic Technology, A.A.S., Milwaukee Area Technical College; B.S., Florida Hospital College of Health Sciences; M.H.A., University of Phoenix; Licensed Radiographer; Registered Radiologic Technologist.

Smith, Re'Nesa B.

Nursing Assistant, A.S.N., Bryant & Stratton; B.S.N., University of Wisconsin – Milwaukee; Registered Nurse.

Soik, Lisa

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., M.S.N., Chamberlain University; Registered Nurse.

Sopa, Dawn.

Nursing, A.S.N., Milwaukee Area Technical College; B.S.N., M.S.N., Chamberlain College Nursing; Registered Nurse.

Stikel, Henry P.

Nursing, A.D.N., Milwaukee Area Technical College; B.S.N., M.S.N., Marian University; D.N.P., Concordia University.

Swinnie, Victoria N.

Clinical Laboratory Technician, B.S., University of Wisconsin – Milwaukee; M.A., Alverno College; Registered Medical Technologist.

Teufel, Stephanie

Dental Hygiene, Technical Diploma, Waukesha County Technical College; A.A.S., University of Wisconsin – Washington County; A.A.S., Milwaukee Area Technical College; B.A.A.S., University of Wisconsin – Waukesha; M.Ed., Carroll University; Registered Dental Hygienist.

Tucker, Jasmine M.

Nursing, B.S.N., M.S.N., Tennessee State University; Registered Nurse.

Vehmas, Tania P.

Dental Hygiene, A.A.S., Milwaukee Area Technical College; B.S., University of Bridgeport; M.Ed. Post University; Registered Dental Hygienist.

Weist, Julie

Nursing, A.A.S., Milwaukee Area Technical College; B.S.N., Marian University; M.S.N., Grand Canyon University; Registered Nurse.

Whitehead, Nancy L.

Nursing, BSN, University of Wisconsin – Oshkosh; M.S.N., University of Wisconsin – Milwaukee; Ph.D., Northcentral University; Registered Nurse; Advanced Practice Nurse Prescriber; Family Nurse Practitioner - Board Certified.

Woods, Sadie L.

Clinical Laboratory Technician, A.A.S., Milwaukee Area Technical College; B.S., Siena Heights University; ASCP Board Certified.

York, Karen A.

Nursing, B.S.N., University of Wisconsin – Madison; M.S.N., Concordia University; Registered Nurse.

Zielinski, Laurie J.

Health, B.A., University of Wisconsin – Milwaukee; American Board of Opticianry Certification; National Contact Lens Certification.

Manufacturing, Construction & Transportation Faculty

Alsop-Kingery, Rebecca L.

Dean, Manufacturing, Construction & Transportation Pathway, B.B.A., Eastern Michigan University; M.S., University of Wisconsin – Milwaukee.

Anderson, Scott J.

Automobile-Mechanical, A.A.S., Waukesha County Technical College; ASE Certified Master Automotive Technician.

Barbour III, Charles R.

Air Conditioning and Refrigeration Technology, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Steamfitter.

Bartley, Doni W.

Air Conditioning and Refrigeration Technology, A.A.S., Milwaukee Area Technical College; B.S., M.S. Ed.D., University of Wisconsin – Stout.

Bautch, Gary.

Truck Driving, Commercial Driver's License.

Burazin, Guy Anthony.

Welding, A.A.S., Milwaukee Area Technical College; Licensed Weld Test Conductor.

DIRECTORY OF CREDENTIAL INFORMATION

Cech, Christin

Power Plant Engineer, Certificate, Technical Diploma, A.A.S.; Milwaukee Area Technical College; Power Plant Operating Engineer Chief, American Society of Power Engineers.

Cervený, Lee M.

Industrial Welding Technology, A.A.S., Milwaukee Area Technical College; AWS CWI Certified Welding Inspector; CRAW-T Certified Robotic Arc Welding Technician.

Chomicki, Chris A.

Machine Shop, A.A.S., Milwaukee Area Technical College; B.A., Ottawa University.

Cook, Levi M.

Electricity, Apprenticeship; Journeyman Wireman; Master Electrician.

Cotter, Brian J.

Carpentry, Diploma, Eastern Maine Community College; B.S., Granite State University; M.B.A., Trident University.

Diaz, Guillermo

Tool & Die Making, Apprenticeship; Journeyman Tool & Die Maker.

Dietz, Joseph T.

Horticulture, A.A.S., Milwaukee Area Technical College; B.F.A., University of Wisconsin – Stout; I.S.A. Certified Arborist.

Dricken, Robert L.

Welding, A.A.S., A.A.S., Milwaukee Area Technical College; A.A.S., B.S., Milwaukee School of Engineering; AWS CWE Certified Welding Educator; AWS CWI Certified Welding Inspector; Certified Weld Test Conductor.

Drzymcinski, Douglas J.

Steamfitting, Apprenticeship; Journeyman Steamfitter.

Feliciano, Karen

Welding, Diploma, A.A.S., Waukesha County Technical College; AWS CWI Certified Welding Inspector.

Fisler, Scott J.

Automobile-Mechanical, ASE Certified Master Automotive Technician.

Forcica, Elsa

Welding, A.A.S., Milwaukee Area Technical College; AWS CWI Certified Welding Inspector.

Gahan, Jeffery A.

Automotive Technology, A.A.S., Milwaukee Area Technical College; ASE Certified Master Automotive Technician.

Golden, Douglas E.

Airframe & Aircraft Technology, Diploma, Milwaukee Area Technical College; FAA Airframe/Powerplant Certified.

Grossert, Jay G.

Automotive Technology, B.S., Carthage College; M.S., University of Wisconsin – Milwaukee; ASE Master Automobile, A9, G1, L1, L2.

Guerrero, Zachary A.

Welding, B.A., University of Wisconsin – Milwaukee; AWS CWI Certified Welding Inspector; Licensed Welder.

Hanson, Patrick S.

Industrial Equipment Mechanic, ASE Master Automotive Technician, L1, G1; Certified Hydraulic and Pneumatic Systems.

Hartzheim, Michael R.

Tool & Die Making, Two Year Technical Diploma, Milwaukee Area Technical College; Apprenticeship; Journeyman Mold Maker.

Hoernke, Donald M.

Electricity, Apprenticeship; Journeyman Electrician.

Hoffmann, David M.

Automotive Technology, A.A.S., Milwaukee Area Technical College; ASE Certified Master Automotive Technician.

Iwanski, Darrel K.

Welding, Apprenticeship; Sheet Metal Journeyman; AWS CWI Certified Welding Inspector; State Weld Test Conductor;

Jackson, Nicole M.

Dental Technician, Technical Diploma; A.A.S., Milwaukee Area Technical College; Certified Dental Technician (CDT); Technologist (TE).

Jelen, Piotr

Truck Driving, Short-Term Diploma, Technical Diploma, Technical Diploma, A.A.S., Milwaukee Area Technical College; Commercial Driver's License.

Kachar, Mathew

Airframe & Aircraft Technology, Technical Diploma, Milwaukee Area Technical College; B.S., Marquette University; FAA Airframe/Powerplant Certified

Kaiser, Tyler

Automobile/Mechanical, Diploma, Auto/Diesel, Universal Technical Institute; Master Technician BMW.

Kennedy, Thomas V.

Electricity, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – Stout; Apprenticeship; IBEW Journeyman Inside Wireman; Certified Master Electrician; Certified Electrical Inspector; WI Licensed Designer of Engineering Systems; OSHA Authorized Construction Trainer.

Kern, Tyre G.

Welding, A.A.S., Milwaukee Area Technical College; Certified Weld Test Conductor.

Kolberg, Alan R.

Air Conditioning and Refrigeration Technology, B.S., University of Wisconsin – Stevens Point; Journeyman Steamfitter.

Kroll, Kevin P.

Bricklaying & Masonry, B.S., University of Wisconsin – Stevens Point.

Kruegel, Matthew C.

Auto Collision Repair/Refinish, Diploma, Milwaukee Area Technical College; B.S., University of Wisconsin – Stout.

Kuehl, Craig D.

Diesel, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – Stout.

Lewis, Andrew D.

Air Conditioning and Refrigeration Technology, Apprenticeship; Journeyman Steamfitter.

Lockett, Gordon W.

Plumbing, Diploma, A.A.S., Milwaukee Area Technical College; Master Plumber.

Lorino, John Joseph

Truck Driving, A.A.S., Milwaukee Area Technical College; Commercial Driver's License.

Lunz, David P.

Welding, Apprenticeship; A.A.S., Milwaukee Area Technical College; Iron Worker Journeyman.

McDonald, Charles E.

Electricity, One Year Technical Diploma, Milwaukee Area Technical College; Apprenticeship.

Michels, Patrick

Carpentry, One Year Technical Diploma, Milwaukee Area Technical College.

Moen, Mark A.

Airframe & Aircraft Technology, Diploma, Milwaukee Area Technical College; FAA Airframe/Powerplant Certified.

Molinski, Douglas J.

Electricity, Apprenticeship; A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – Green Bay; Master Electrician;

Nash, Eddie

Electrical Power Distribution, B.A., Concordia University.

Nelson, Todd W.

Steamfitting, Certificate, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Steamfitter.

Pecard, Howard A. Jr.

Sheet Metal, Apprenticeship; Sheet Metal Journeyman.

Peterson, William J.

Welding, A.A.S., Milwaukee Area Technical College; AWS CWI Certified Welding Inspector.

Plewa, Craig M.

Truck Driving, Commercial Driver's License.

Pribyl, Jon R.

Airframe & Aircraft Technology, Diploma, Milwaukee Area Technical College; FAA Airframe/Powerplant Certified.

Reindl, Matthew

Electricity, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Lineman.

DIRECTORY

Reinke, Linda M.

Automotive Technology, A.A.S., Milwaukee Area Technical College; B.S., University of Wisconsin – Stout.

Richards, Debra L.

Air Conditioning and Refrigeration Technology, A.A.S., University of Wisconsin – Washington County; B.S., University of Wisconsin – Stevens Point; M.S., University of Wisconsin – Stout, Journeyman Steamfitter.

Robinson, Michele

Electricity, B.A., University of Wisconsin – Milwaukee; Journeyman Electrician; Licensed Electrician.

Rooney, Mary B.

Machine Shop, Apprenticeship; A.A.S., Milwaukee Area Technical College; Tool Room Machinist Journeyman.

Roseland, Paul J.

Sheet Metal, Apprenticeship; Sheet Metal Journeyman.

Runte, Donald T.

Auto Collision Repair/Refinish, Diploma, Milwaukee Area Technical College; ASE Certified Collision Repair Technician.

Savage, Joseph A.

Electricity, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman Electrician.

Schallitz, Adam L.

Automobile-Mechanical, A.A.S., Milwaukee Area Technical College; Ford Senior Master Technician Certification.

Schmidt, Glen J.

Air Conditioning and Refrigeration Technology, Apprenticeship; Journeyman Steamfitter.

Schuttke, Mitchell A.

Tool & Die Making, Apprenticeship, Milwaukee Area Technical College; Journeyman Tool and Die Maker.

Schwanz, Erik J.

Automobile-Mechanical, Diploma, Wyoming Technical College; ASE Certified Master Automobile Technician.

Skattebo, Mark A.

Machine Shop, Apprenticeship; Journeyman Toolmaker.

Smith, Ira D.

Machine Shop, Diploma, A.A.S., Milwaukee Area Technical College; Apprenticeship; Journeyman.

Sroka, Beverly J.

Carpentry, A.A., Milwaukee Stratton College; One Year Technical Diploma, One Year Technical Diploma, Milwaukee Area Technical College.

Sytsma, Janet L.

Truck Driving, A.A.S., Milwaukee Area Technical College; B.S., Wisconsin Lutheran College; Commercial Driving License.

Tazalla, Michael

Sheet Metal, Apprenticeship, Sheet Metal.

Trussoni, Joseph M.

Automobile-Mechanical, A.A.S., Waukesha County Technical College; ASE Certified Master Automobile Technician.

Wezyk, Terry J.

Machine Shop, Apprenticeship; Journeyman Machinist.

Weiss, Laurie

Landscape Horticulture, B.S., M.S., University of Wisconsin – Madison.

Wilinski, Theodore J.

Sustainability, B.S., M.S., University of Wisconsin – Madison; Professional Engineer; QCP, CEM.

Wimmer, Charles J.

Electricity, A.A.S., Milwaukee Area Technical College; Journeyman Electrician.

Wissmueller, Adam.

Welding, Diploma B.S., Concordia University.

Wolf, Dakota

Diesel, One Year Technical Diploma, Milwaukee Area Technical College; ASE Certified Master Medium/Heavy Truck Technician.

Young, Daniel E.

Automobile-Mechanical, A.A.S., Waukesha County Technical College; ASE Certified Master Automobile Technician; General Motors Certified Engine Performance Specialist.

Zdrojewski, Daniel R.

Truck Driving, A.A.S., ITT Technical Institute; B.S., University of Phoenix; Commercial Driving License.

Science, Technology, Engineering & Mathematics Faculty

Goodwyn, Kamela J.

Dean, Science, Technology, Engineering & Mathematics Pathway, B.S., Missouri State University; M.B.A., University of Phoenix; Ph.D., Cardinal Stritch University.

Arnold, Jonathan B.

IT-Support, B.A., University of Wisconsin – La Crosse; M.B.A., University of Wisconsin – Milwaukee.

Arocho-Perez, Freddie

Physical Sciences, B.S., University of Puerto Rico; M.S., Purdue University; Ph.D., Lehigh University.

Bannon, Bernard J.

Electronic Technology, B.S.E.E., Milwaukee School of Engineering; Professional Engineer.

Barr, Kristen

Natural Sciences B.S., Carroll University; Ph.D., Medical College of Wisconsin.

Bekele, Tafesse W.

Biological Sciences M.S., University of Edinburgh; M.S., University of Wisconsin – Milwaukee; Ph.D., Swedish University of Agricultural Sciences (Sveriges Lantbruksuniversitet), Sweden; D.V.M., Addis Ababa University.

Bettinger, Noel.

Civil Engineering Technology A.A.S., Milwaukee Area Technical College.

Borysenko, Dina

Physical Sciences, B.S., M.S., Kharkiv State Polytechnical University.

Burch, Tim J.

Physical Sciences, B.S., North Central College; Ph.D., Medical College of Wisconsin.

Buschhaus, Karl R.

Electronic Technology, A.A.S., Milwaukee Area Technical College; B.S.E., University of Wisconsin – Milwaukee; M.A., Marquette University; M.L., J.D., University of New Hampshire

Cape, Michael F.

Physical Sciences, B.S., M.S., University of Wisconsin – Milwaukee.

Christie, Janese

IT-Programming Development, B.S., University of Wisconsin – Milwaukee; M.S., Marquette University.

Colmerauer, Marie N.

Physical Sciences, B.S., University of Wisconsin – Madison; M.S., Ohio State University.

Conley, Lisa K.

Biological Sciences, A.S., University of Wisconsin – Barron County; B.S., University of Wisconsin – La Crosse; Ph.D., University of Wisconsin – Milwaukee.

Crain, Jessica M.

Physical Sciences, B.S., Ph.D., University of Wisconsin – Madison.

Crockett, Jimmy Jr.

Biological Sciences, B.S., Howard University; Ph.D., Medical College of Wisconsin.

Dougherty, Sean P.

Biological Sciences, B.A., Marquette University; M.A., Ph.D., Indiana University Bloomington.

Elsharif, Rafat R.

IT-Networking, B.S., University of Wisconsin – Milwaukee; M.S., Cardinal Stritch University; Ph.D., University of Wisconsin – Milwaukee.

Feder, Patrick E.

IT-Networking, B.S., University of Wisconsin – Madison; M.S., Marquette University.

Ferrara, Brandy R.

Biological Sciences, B.A., University of Wisconsin – Milwaukee; B.S., D.C.M., National University of Health Sciences; M.S., University of Bridgeport.

DIRECTORY OF CREDENTIAL INFORMATION

Giannini, Shalita T.

Physical Sciences, B.A., Lutheran College;
Ph.D., Marquette University.

Goodman, Alan D.

Quality Engineer Technology, B.S., Hampton
University; M.B.A., Temple University; Certified
Six Sigma Black Belt.

Gunderson, Sara

Electronic Technology, A.A.S., Milwaukee Area
Technical College.

Hacker, Michael A.

Architectural Technology, B.S., M. Arch.,
University of Wisconsin – Milwaukee.

Hartley, Mariam V.

Biological Sciences, B.S., University of
Wisconsin – Madison; M.S., University of
Wisconsin – Milwaukee; Ph.D., Medical College
of Wisconsin.

Heraly, Thomas P.

Electrical Engineering Technology, A.A.S., B.S.,
M.S., Milwaukee School of Engineering.

Holmes, Lyah N.

Biological Sciences, A.D.N., Milwaukee
Area Technical College; B.A., Cardinal
Stritch University; M.S.N., D.N.P., Marquette
University.

Hunsicker, Michael S.

IT-Programming Development, B.A., St. Ambrose
University; M.A., Marquette University;
M.L.I.S., University of Wisconsin – Milwaukee.

Inyang, Daniel O.

Architectural Technology, A.A.S., Milwaukee
Area Technical College; B.S., M. Arch.,
M. Urban Plan, University of Wisconsin
– Milwaukee; AICP; Licensed Wisconsin
Architect

Jones, Elijah M.

IT-Programming Development, A.A.S., Milwaukee
Area Technical College; B.A., Lakeland
University; Microsoft Certified Technology
Specialist.

Jones, Sherrea A.

Natural Sciences, B.S., University of Wisconsin
– Madison; Ph.D., Marquette University.

Kalluvila, Thomas A.

Biological Sciences, B.S., University of
Kerala; M.S., Ph.D., University of Wisconsin –
Milwaukee.

Kerschen, Edward J.

Biological Sciences, B.S., Alma College; Ph.D.,
University of Dayton.

Kindschi, Jason C.

Biological Sciences, B.S., University of
Wisconsin – Madison; D.C., Northwestern
Health Sciences University.

Kirsch, Brian C.

IT-Networking, B.S., American Intercontinental
University; M.Ed., American InterContinental
University.

Larson, Jeremy

Anatomy and Physiology, B.S., Carroll
University; M.S., University of Wisconsin -
Milwaukee.

Lee, Geoffrey

Biological Sciences, B.A., Marquette University;
M.S., Rosalind Franklin University of Medicine
and Science.

Lieberthal, Jerry N.

IT-Networking, B.S., M.S., University of
Wisconsin – Milwaukee.

Luksic, Monica I.

Biological Sciences, B.S., University of
Wisconsin – Milwaukee; M.S., University of
Maryland – College Park.

Madden, Cristine J.

Biological Sciences, B.S., University of South
Carolina; M.S., University of Wisconsin –
Oshkosh; M.B.A., University of Wisconsin –
Milwaukee.

Martinez, Joseph L.

IT-Networking, A.A.S., B.S., ITT Technical
Institute; M.B.A., University of Phoenix.

Matzen, Chad D.

Electronic Technology, A.A.S., Milwaukee
Area Technical College; Certified Biomedical
Equipment Technician

Menzi, Robert.

IT Web & Software Development B.S.,
Purdue University; M.S., Illinois Institute of
Technology; M.M., Northwestern University.

McHugh, Patrick K.

IT-Networking, B.A., University of Wisconsin –
Milwaukee; M.B.A., Keller Graduate School of
Management.

McLeod, Tina M.

Biological Sciences, B.S., UW – Whitewater;
M.S., Logan College of Chiropractic; D.C.
Palmer College of Chiropractic

Mikhailenko, Vadim

IT-Support, B.S., M.S., Belarusian State
University; M.B.A., Keller Graduate School of
Management.

Nadi, Emad T.

Civil Engineering Technology, B.S., Marquette
University; M.S., University of Wisconsin –
Milwaukee; Ph.D., Marquette University.

Neumann, Veronica C.

Biological Sciences, B.S., M.S., University of
Alabama.

Norman, Cheryl B.

Biological Sciences, B.S., University of
Wisconsin – Milwaukee; Ph.D., Medical College
of Wisconsin.

Riley, Patrick

Architectural Technology, B.A., M.A.,
University of Wisconsin – Milwaukee.

Rogers-McMahon, Charlene J.

Natural Sciences, B.A., Concordia College;
Ph.D., University of Minnesota.

Ryan, Christine M.

Biological Sciences, B.S., Ph.D., Marquette
University; M.S., Sarah Lawrence College.

Schlipp, Scott A.

Natural Sciences, A.A.S., Milwaukee Area
Technical College; B.S., M.S., University of
Wisconsin – Milwaukee.

Schmid, Marie C.

Natural Sciences, B.S., M.S., University of
Wisconsin – Milwaukee.

Schmocker, David J.

Electronic Technology, A.A.S., B.S., Milwaukee
School of Engineering; M.B.A., Marquette
University; Professional Engineer.

Schroeder, Christopher J.

Natural Sciences, B.S., University of Wisconsin
– Milwaukee; M.S., Mississippi State University;
M.L.S., University of Maryland; M.S.Ed, M.S.,
Slippery Rock University.

Shahnoor, Nazima

Natural Sciences, B.S., M.S., Ozmania
University; M.S., University of Sheffield; Ph.D.,
University of Wisconsin – Milwaukee.

Sliwoski, Nadi W.

Chemical Technology, B.S, Institute of
Chemistry, Ceylon; M.S., University of
Louisiana- Monroe Colombo; Ph.D., Medical
College of Wisconsin.

Smith, Debra L.

Mechanical Technology, B.S., University of
Wisconsin – Madison; M.S., Milwaukee School
of Engineering; Ph.D., Marquette University.

Tchesnokova, Elena V.

Physical Sciences, B.S., M.S., Ph.D., Kiev
Polytechnic Institute, Ukraine; Ph.D. D.Sc.,
Institute of Organic Chemistry, Polish Academy
of Sciences.

Thompson, James

Mechanical Technology, B.S., University of
Wisconsin – Milwaukee.

Welcenbach, Joseph

Electronic Technology, A.A.S., Milwaukee Area
Technical College; B.S., Milwaukee School of
Engineering; M.S., Marquette University.

Wingard-Haynes, Brenda E.

Physical Sciences, B.B.A., Iowa State University;
M.S., University of Virginia.

Xue, Young.

Natural Sciences B.S., Sichuan University;
M.S., University of Illinois at Chicago; Ph.D.,
University of Illinois at Chicago.

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