## ITDEV-154: Data Structures and Programming

## Course Description:

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.

Total Credits: 3.00

## **Course Competencies**

- 1. Discuss file and database concepts
- 2. Differentiate database models
- 3. Design a relational database
- 4. Employ SQL (structured query language) within a relational database management system to manage databases and their tables
- 5. Employ SQL (Structured Query Language) to manage data within a relational table
- 6. Employ SQL (Structured Query Language) to query data within a relational database.