

# CIT 110 - PROGRAMMING LOGIC AND DESIGN

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## Course Description

The student is introduced to topics in programming logic and design in preparation for subsequent programming courses. The course lecture material is presented via readings and videos, with activities being largely focused on coding, testing and debugging in Visual Studio IDE. Good coding practices and simple design patterns are emphasized. Topics covered include: Data Types, Control Structures, Decisions and Conditionals, Data Validation, Arrays, Lists, Methods, Classes, and Exception Handling. Group 2 course.

## Credit Hours

3

## Contact Hours

4

## Lecture Hours

2

## Lab Hours

2

## General Education Outcomes supported by this course

Critical Thinking - Direct

## Course Learning Outcomes

### Knowledge:

- Implement the appropriate data type for a given application.
- Implement control structures necessary for a given algorithm.
- Implement data validation and exception handling for a given application.

### Application:

- Demonstrate the process of coding an application within an IDE.

### Integration:

- Evaluate a set of application requirements to determine the coding elements and application structure.
- Design and create a fully functional application that meets specifications.

### Human Dimension:

- Demonstrate interpersonal communication skills while interacting with peers.

### Caring - Civic Learning:

- Identify how the quality of code affects our daily experience and interaction with technology.

### Learning How to Learn:

- Select professional development resources that support their learning styles.
- Independently seek out solutions to problems.