

# IST 110C : Programming Fundamentals

Introduces students to design and develop computer programs using the C# language. Students learn and resolve a range of programming problems by applying techniques of design, structured coding, debugging, error-handling, and troubleshooting. The course begins by exploring procedural syntax and concludes with an introduction to object-oriented programming. Topics include problem analysis, computer logic and flow control, decision and repetition structures, use of methods, arrays, program documentation, class definitions, and use of a debugger. No prior programming knowledge is necessary.

**Credits** 3

**Lab/Practicum/Clinical Hours** 2

**Lecture Hours** 2

## **Learning Outcomes**

- Understand the use of Microsoft Visual Studio to design, develop, debug and execute small computer programs.
- Write computer programs in C# programming language
- Use memory concepts while writing programs using primitive data types.
- Use concepts of value types, reference type and output variables.
- Design and develop modular computer programs while using control structures and algorithms.