

# CSE 102 : Foundations of Game Development

**Credits 5**

Games are complex systems that use software code to simulate your fantasy world. Learn about how to manage object state and use object oriented design to organize your game system into manageable parts.

**Course Outcomes**

- Create your own flow charts to describe software logic.

- Identify various data types available.

- Demonstrate ability to use binary math.

- Demonstrate the use of object oriented software development.

- Explain how inheritance and encapsulation can be used to write better code.

- Explain the difference between assembly language and high level languages.

- Describe machine code and byte code and how they differ.

- Compile C# code into program code that can be run by the computer.

- Demonstrate mastery of using If statements to make choices in software.

- Demonstrate ability to create loops to do repetitive work.

- Explain how CPU Registers and cache are used and how memory is accessed by the CPU during program execution.

- Describe the difference between writing code that talks directly to the hardware and code that uses the HAL layer in the operating system.

- Demonstrate familiarity with basic data structures.