

Lawrence Technological University offers a 13-credit hour undergraduate certificate in Game Software Development. Students who want to pursue this certificate will take one course per semester.



Certificate in Game Software Development

The undergraduate certificate in Game Software Development is an exciting option for students interested in developing game programming skills. These skills are the foundation to join the rapidly expanding and biggest entertainment industry in the world. You will learn how to make your own games, work in interdisciplinary teams, and help shape the future of this emerging art form with diverse and passionate game developers.

MCS 1514 Computer Science I - 4 credits

Introduction to programming with C++. Binary, two's complement, decimal, hex, and octal representations. Variable types. Simple, iterative, and conditional statements. Procedure and functions with parameters by value and reference with or without a returning value. Arrays and vectors, multidimensional arrays, bubble and selection sorts, linear and binary search. Pointer and dynamic memory allocation, character and C-strings, file input/output (sequential). Classes, friends, array of objects, and operators' overloading. Inheritance, polymorphism, virtual function, and recursion.

MCS 1643 Introduction to Computer Games and Animation - 3 credits

Hands-on introduction for programmers and artists into game development. Each of the major components of making computer games will be studied through hands-on exercises. Students will make their first games using industry-wide tools. No prior programming experience required.

MCS 1653 Game Genre Development - 3 credits

Create video games of several different genres such as shoot-em-up, scrolling shooter, platform, puzzles, maze racing, sports, and RPG. Examining and implementing game requirements for different hardware platforms.

MCS3563 Game Design - 3 credits

Each aspect of game design is examined and implemented. At the end of the course students will have designed a complete game.

