

CSE 1300: Introduction to Computing Principles

3 Credit Hours

This course is an introductory computing principles course. Instruction centers on an overview of the history, scope, and impact of computing as well as critical, algorithmic and computational thinking on problem decomposition and fundamental programming concepts.

CSE 1321: Programming and Problem Solving I

3 Credit Hours

Concurrent: CSE 1321L

This course provides an introduction to computing with a focus on programming. Instruction centers on an overview of programming, problem-solving, and algorithm development. Particular topics include object-oriented design/programming, primitive data types, arithmetic and logical operators, selection and repetition structures, interactive user input, exception handling, using and designing basic classes, single-dimensional data structures with searching and sorting, and arrays. Programming assignments focus on techniques of good programming style including proper documentation. The student is taught to efficiently design, code, and debug problem solutions and the relationship between correct code and security.

CSE 1321L: Programming and Problem Solving I Laboratory

1 Credit Hours

Concurrent: CSE 1321

Lab activities with programming and game design to accompany CSE 1321.

CSE 1322: Programming and Problem Solving II

3 Credit Hours

Prerequisite: A grade of "B" or higher in CSE 1321 and CSE 1321L

Concurrent: CSE 1322L and (MATH 1113 or MATH 1190 or MATH 1179 or MATH 2202)

The second course in computing provides coverage of more advanced topics of object-oriented programming. This includes the use of static variables and classes, non-linear data structures, inheritance and polymorphism, file input/output, exception handling, recursion, and parameterized types. Elementary data structures (linked lists, stacks, and queues) are introduced to solve application problems. Graphical user interfaces, parallel programming, database programming, and event-driven programming are also introduced. Students will use good programming style including proper documentation.