

**University of North Alabama
Departmental Syllabus**

COURSE: CS 155

COURSE TITLE: Computer Science I

PREREQUISITE: CS 120 and MA 112 or departmental approval.

COURSE DESCRIPTION: (3 semester hours) An Introduction to the theoretical foundations of computer science, the components of algorithms and the representation of these components using a high-level programming language. Special emphasis on software development, and a introduction to object-oriented programming. Two class periods; one 2-hour laboratory period per week.

COURSE OBJECTIVES:

1. To introduce the parts of a computer system.
2. To introduce the basic concepts of the discipline.
3. To teach the basic features of the C++ programming languages.
4. To teach currently approved programming style.
5. To introduce the computer as a tool in the problem solving process.
6. To use the computer to practice problem-solving mathematical concepts.
7. To introduce the use an modification of programs to solve a variety of problems.
8. Complete applications sufficient to be able to evaluate, modify, and/or use available programs to solve problems.

COURSE CONTENT:

Overview of hardware and software components of computer systems. Software development practices and structured programming approach to solving problems. Fundamental topics of program structure, data type, variables, constants, calculations, input/output, procedures, functions, decisions structures, selection, looping, user defined data types, and structured data types.

COURSE REQUIREMENTS:

Class and Lab Attendance
In class tests
Design and code Programs in C++
Comprehensive final examination

Accommodation Statement: In accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, the University offers reasonable accommodations to students with eligible documental learning, physical and/or psychological disabilities. Under Title II of the Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973, a disability is defined as a physical or mental impairment that substantially limits one or more major life activities as compared to an average person in the population. It is the responsibility of the student to contact Developmental Services prior to the beginning of the semester to initiate the accommodation process and to notify instructors within the first three class meetings to develop an accommodation plan. Appropriate, reasonable accommodations will be made to allow each student to meet course requirements, but no fundamental or substantial alteration of academic standards will be made. Students needing assistance should contact Development Services.