

Minor in Computer Science (BCS)

18 Credit Hours

College of Engineering

Minor Description

The Computer Science minor covers key topics in the discipline and is an 18 credit hour program that is expected to be attractive to students in other Engineering departments and to students in Mathematics and the Sciences (including Physics, Chemistry, and Biology).

All students desiring to pursue the minor must meet the same entry and continuation requirements as a Departmental major, see <http://www.usf.edu/engineering/cse/undergraduate/admissions.aspx>.

Prerequisite courses (28 Hours):

1. English Composition I and II ([ENC 1101](#) and [ENC 1102](#))
2. Calculus I ([MAC 2311](#) or [MAC 2281](#)) and Calculus II ([MAC 2312](#) or [MAC 2282](#))
3. Calculus-based Physics I with Lab ([PHY 2048](#) and [PHY 2048L](#))
4. Calculus-based Physics II with Lab ([PHY 2049](#) and [PHY 2049L](#))
5. Programming Concepts ([COP 2510](#)) with a minimum grade of B (grade of B- is insufficient) or another introductory program course covering a modern programming language, with an emphasis on programming concepts and design methodology with a minimum grade of B (grade of B- is insufficient)
6. Introduction to Discrete Structures ([COT 3100](#) or equivalent) is required

Total Minor Hours - 18 Hours

The Computer Science minor is open to all students, except for students majoring in Computer Science, Computer Engineering, and Information Technology, who meet the prerequisites listed under Additional Minor Requirements

Core Courses - 12 Hours

- [COP 3514](#) Program Design
- [CDA 3103](#) Computer Organization
- [COP 3331](#) Object-Oriented Software Design
- [COP 4530](#) Data Structures

Elective Courses - 6 Hours

The remaining six credit hours can be taken from electives offered by the Department of Computer Science and Engineering.

Additional Minor Requirements

Students must register with the Department Undergraduate Advisor prior to starting this minor program. Consultation with the Department Undergraduate Advisor will ensure that students are informed of all offered courses. All catalog prerequisites and registration requirements must be met for enrollment in any of the courses required for the minor.

GPA Requirement

Successful completion of the minor requires a minimum 2.0 GPA in the above listed courses.

Course Grade Requirement

Continuation in the minor requires successful completion of [CDA 3103](#) and [COP 3514](#) with minimum grades of B, based on best attempts in each course. Grades of B- are insufficient. These requirements must be met with a maximum of two attempts allowed for each course.

Additional Minor Information

Specialty tracks in hardware, software, theory, and many other areas can be defined in consultation with the Department Undergraduate Advisor. A specific pre-graduate school track (requiring a total of 21 hours) intended for students planning to seek admission into the Department graduate program has been defined as follows:

- COT 4400 Analysis of Algorithms
- COP 4600 Operating Systems
- CDA 4205 Computer Architecture

Advising Information

Department Undergraduate Advisor:

<http://www.usf.edu/engineering/cse/undergraduate/contacts.aspx>