

# COMPUTER SCIENCE MINOR

Natural Sciences, Mathematics, and Engineering (nsme) (<https://catalog.csub.edu/general-information/csub-information/school-natural-sciences-mathematics-engineering/>)

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[www.cs.csubak.edu](http://www.cs.csubak.edu) (<http://www.cs.csubak.edu>)

Program Maps for Natural Sciences, Mathematics, and Engineering (<https://programmmap.csub.edu/academics/interest-clusters/4e942a6e-b8e4-4b60-a1ae-334235acc581/>)

## Program Requirements

A Minor in Computer Science will require the student to take a total of at least 16 units of 2000-level or higher computer science course work as well as satisfy the following additional requirements:

| Code                                                               | Title                                                       | Units     |
|--------------------------------------------------------------------|-------------------------------------------------------------|-----------|
| <b>Minor Requirements</b>                                          |                                                             |           |
| CMPS 2020                                                          | Programming II: Data Structures and Algorithms <sup>1</sup> | 4         |
| Select one of the following:                                       |                                                             | 4         |
| CMPS 2120                                                          | Discrete Structures <sup>2</sup>                            |           |
| CMPS 2240                                                          | Computer Architecture I: Assembly Language Programming      |           |
| CMPS 2650                                                          | Linux Environment and Administration                        |           |
| CMPS 2680                                                          | Web Programming I: Client -side Web Programming             |           |
| <i>Upper Division Course Work</i>                                  |                                                             |           |
| Select at least 8 units of upper division course work <sup>3</sup> |                                                             | 8         |
| <b>Total Units</b>                                                 |                                                             | <b>16</b> |

<sup>1</sup> Which requires CMPS 2010 Programming I: Programming Fundamentals or the equivalent with a grade of C- or better and one pre-calculus or calculus course with a grade of C- or better

<sup>2</sup> MATH 3000 Mathematical Foundations may be substituted for CMPS 2120 Discrete Structures

<sup>3</sup> At least 8 units of upper division course work in computer science (normally two-three courses) chosen with the help of a computer science advisor. MATH 3300 Numerical Analysis, MATH 4300 Applied Cryptography, ECE 4470 Computer Vision, and ECE 4550 Applied Machine Learning may be substituted for upper division course work, since they are cross-listed with CMPS 3300 Numerical Analysis, CMPS 4300 Applied Cryptography, CMPS 4470 Computer Vision, and CMPS 4550 Applied Machine Learning respectively.