Computer Science Program
Catalog 2022-23 – 120 Hours

Requires a 3.5 grade average in Calculus I, Calculus II, and Physics I with Lab for progression to upper-level. Prereq for COP 2510 is minimum grade of "B" in Calculus I. All grades "C" or better. No more than two courses in upper-level pre-progression.

NOTE: This flowchart is provided as a guide; the catalog is the only definitive source of requirements.

Mathematics – 17 hours
- MAC 2281 (4 hrs) Engineering Calculus I
- MAC 2282 (4 hrs) Engineering Calculus II
- EGN 4450 (2 hrs) Intro to Linear Systems
- MAC 2283 (4 hrs) Engineering Calculus III
- EGN 3443 (3 hrs) Prob and Statistics for Engineers

Science – 14 hours
- Nat Sci Elec (3 hrs)
- Nat Sci Elec (3 hrs)
- PHY 2048/2048L (4 hrs) Physics I w/ Lab
- PHY 2049/2049L (4 hrs) Physics II w/ Lab

EGN 3000/3000L (3 hrs) Foundations of Engineering

English – 6 Hours
- ENC 1101 (3 hrs) Composition I → ENC 1102 (3 hrs) Composition II

COP 2510 (3 hrs) Programming Concepts

Note: COP 2510, CDA 3103, and COP 3514 with a minimum grade of "B" based on best attempts in each course. These requirements must be met with a maximum of two attempts allowed for each course.

- CDA 3103 (3 hrs) Computer Organization
- COP 3514 (3 hrs) Program Design
- COT 3100 (3 hrs) Discrete Structures
- CDA 3201/3201L (4 hrs) Computer Logic Design w/ Lab
- COP 4530 (3 hrs) Data Structures
- CDA 4205/4205L (4 hrs) Computer Architecture w/ Lab
- COP 4600 (3 hrs) Operating Systems
- CEN 4020 (3 hrs) Software Engineering
- COT 4400 (3 hrs) Analysis of Algorithms
- CNT 4419 (3 hrs) Secure Coding
- CIS 4250 (3 hrs) Ethical Issues and Prof Conduct

CSE Electives (12 hrs)

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CSE Software Electives (6 hrs)

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CSE Theory Elective (3 hrs)

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General Electives (9 hrs)

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Additional requirements

Gen Ed Social Science (3 hrs)
Gen Ed Humanities (3 hrs)
Gen Ed Human and Cultural Diversity in GC (3 hrs)
ENC 3246 Communication for Engineers (3 hrs)
Foreign Lang (8 hrs or 2 years high school)

Industry internship

An industry internship is recommended for the third summer. Credit can be earned as CIS 4940 Industry Internship. See the Department Advisor for more information.

Notes

1) Unless otherwise stated, the minimum acceptable grade in all BSCS required math, science, and engineering courses is a "C" or higher ("C-" is insufficient). The minimum acceptable grade in specialization courses is a "C-", except as stated in the progression and continuation requirements in the catalog.
2) A student may substitute a second "Physical Science" course for the required "Life Science" course.
3) COP 4530 is the minimum prereq for most software electives. CDA 3201 with lab is the minimum prereq for most hardware electives. COP 4530 and COT 3100 are the minimum prereqs for most theory electives.
4) The maximum number of credit hours for CIS 4900, CIS 4915, and CIS 4940 in any combination is 6 credit hours.
5) Students may be required to complete both an approved civic literacy course and a passing score on a designated civic literacy assessment before graduation from the USF. Consult the catalog.

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