

B.S. in Computer Science

Program Description

The Bachelor of Science in Computer Science degree builds students' understanding and expertise in computer hardware, operating systems and programming languages.

Delivery Mode

Traditional (on campus)

Accreditation

This program is accredited by ABET, www.abet.org.

Curriculum

Course	Credits
General Education Courses	41
<i>Building a Sense of Community</i> UNI 100 First-Year Seminar OR HON 100 Honors and University Orientation	1
<i>Composition</i> ENG 101 English Composition I OR HON 150 Honors Composition I	3
<i>Public Speaking</i> Any Public Speaking Course	3
<i>Mathematics and Quantitative Literacy</i> MAT 281 Calculus I	3
<i>Health and Wellness</i> Any Health and Wellness Course	3
<i>Technological Literacy</i> CSC 120 Problem Solving and Programming Constructs	3
<i>Humanities</i> Any Humanities Course	3
<i>Fine Arts</i> Any Fine Arts Course	3
<i>Natural Sciences</i> Select from BIO 120, BIO 125, BIO 215, CHE 101, CHE 102, EAS 104, GLG 150, PHY 101, PHY 202	4
<i>Social Sciences</i> Any Social Sciences Course	3
<i>General Education Options</i> <ul style="list-style-type: none"> • CSC 352 Global, Economic and Social Ethical Issues in Computing 	12

Department of Computer Science, Information Systems and Engineering Technology

Course	Credits
<ul style="list-style-type: none"> • ENG 217 Science and Technology Writing OR HON 250 Honors Composition II • CSC 124 Computer Programming I • MAT 282 Calculus II 	
Required Major Courses	43
CSC 216 Logic and Switching Theory	3
CSC 265 Object-Oriented Programming	3
CSC 323 Assembly Language Prog.	3
CSC 328 Data Structures	3
CSC 360 Analysis of Algorithms	3
CSC 378 Computer Architecture	3
CSC 400 Operating Systems	3
CSC 455 Structures of Prog. Languages	3
CSC 460 Language Translations	3
CSC 475 Theory of Languages	3
CSC 490 Senior Project I	3
CSC 492 Senior Project II	3
CET 350 Technical Computing Using Java	3
CET 440 Computer Networking	4
Required Related Courses	9
MAT 195 Discrete Mathematics	3
MAT 341 Linear Algebra I	3
MAT 215 Statistics	3
Computer Science Electives	8
Select one course from the following: <ul style="list-style-type: none"> • CSC 322 Data Base Application Development • CSC 420 Artificial Intelligence • CSC 424 Numerical Analysis • CSC 485 Special Topics in Computer Science 	3

Department of Computer Science, Information Systems and Engineering Technology

Course	Credits
Select two from the following: <ul style="list-style-type: none">• CSC 304 COBOL• CSC 306 FORTRAN• CSC 308 Python• CSC 419 Internship	5
Coursework Related to Major	4
Select a second laboratory-based course	4
Free Electives	15
Total	120

Additional requirements, not counted toward the General Education requirements, include:

- **Special Experience Course (1 course required):** CSC 492 Senior Project II
- **Writing-Intensive Component Courses (2 courses required):** CSC 490 Senior Project I AND CSC 492 Senior Project II
- **Laboratory Course (1 course required):** Natural Sciences choice satisfies this

Program Notes: A maximum of three credits can be used from Internship toward the program. Students going to graduate school should complete MAT 381 (Calculus III) and MAT 382 (Calculus IV) as free electives.

Program Webpage

<https://www.calu.edu/academics/undergraduate/bachelors/computer-science/index.aspx>