

B.S. DEGREE IN COMPUTER SCIENCE

81 HOURS

A graduate with a Bachelor of Science degree in Computer Science will:

1. Be able to demonstrate understanding of and the ability to apply core computer science principles, knowledge, and skills to solve problems using computers.
2. Be able to apply a Christian worldview in the practice of computer science.
3. Be prepared for a career and/or vocation using computer science.

Students must complete a minimum of 122 hours including the major, core, and minor if required. Elective hours may be needed to reach 122 hours.

24 HOURS LOWER DIVISION

CMSC-1113 Programming I
 CMSC-1123 Programming II
 CMSC-1313 Software Engineering I: Introduction
 CMSC-2133 Object-Oriented Software Engineering
 CMSC-2213 Internet Application Development
 CMSC-2233 Data Structures and Algorithm Analysis
 CMSC-2313 Software Engineering II: Practices
 CMSC-2413 Assembly Language

21 HOURS UPPER DIVISION

CMSC-3313 Software Engineering III: Ethics
 CMSC-3443 Computer Organization and Architecture
 CMSC-4123 Software Engineering IV: Tools
 CMSC-4243 Software Engineering V: Projects
 CMSC-4323 Database Systems
 CMSC-4413 Operating Systems
 CMSC-4513 Programming Languages

12 HOURS UPPER DIVISION CHOSEN FROM

Take any upper-division CMSC course not already taken, which can include CENG-4213.

3 HOURS COMMUNICATION CHOSEN FROM

COMM-3113 Business and Professional Communication
 ENGL-3493 Technical Writing

17 HOURS MATHEMATICS

MATH-1623 Introduction to Discrete Mathematics
 MATH-2114 Calculus I with Analytical Geometry
 MATH-2214 Calculus II with Analytical Geometry
 MATH-2913 Statistical Methods
 MATH-3513 Linear Algebra

2 HOURS LOWER DIVISION COMPUTER SCIENCE TEAM EXPERIENCE

CMSC-2011 Computer Science Team Experience I
 CMSC-2011 Computer Science Team Experience I

2 HOURS UPPER DIVISION COMPUTER SCIENCE TEAM EXPERIENCE

CMSC-4011 Computer Science Team Experience II
 CMSC-4011 Computer Science Team Experience II

UNIVERSITY CORE CURRICULUM

B.S. - 51 HOURS - COURSES MAY NOT BE REPEATED WITHIN CORE

COMMUNICATION, 9 HOURS

COMM-1213: Oral Communication
 ENGL-1113: English Composition I
 ENGL-1213: English Composition II

MATHEMATICS, 3 HOURS

MATH-1623: Introduction to Discrete Mathematics

REQUIRED BIBLE, 6 HOURS

BIBL-1023: Foundations: Introduction to the Good Life
 BIBL-1103: Story: Introduction to Christian Worldview

BIBLE ELECTIVES, 3 HOURS

CAPSTONE, 3 HOURS

BIBL-4533: Bible Capstone

POLITICAL SCIENCE, 3 HOURS

POLS-2113: Introduction to American Government

AMERICAN HISTORY, 3 HOURS

HIST-2213: History of the U.S. to 1877
 HIST-2223: History of the U.S. Since 1877

GREAT WORKS, 3 HOURS

ARTS-2013: Survey of Visual Culture
 ARTS-2423: History of Photography and Motion Pictures
 ENGL-2213: Perspectives in Literature
 MATH-2123: The History of Mathematics
 MUSC-2013: Music Appreciation
 MUSC-2023: Jazz Appreciation
 MUSC-3213: Perspectives in World Music

SCIENCE, 6 HOURS

One course must include a lab

PSYC, SOCIAL SCIENCES, FINE ARTS, OR FOREIGN LANGUAGE, 3 HOURS

3 hours from these areas: Fine Arts, Family Science, French, German, History, Japanese, Music, Political Science, Psychology, or Spanish

LIBERAL ARTS, 9 HOURS

9 hours from any liberal arts area

For more information on how to apply study abroad trips to the core, see page 25.