Program: Computer Science  
Major: Computer Science  
Degree: Bachelor of Science (B.S.)

Dept: Computer Science  
College: Mathematics and Science  
Major Code: 6100

University Core (Total Listed 42-44)

For a full list of courses see University Core.
* Courses from the major may apply to the areas marked in the University Core.

Written and Oral Communication .............................................. 9
Quantitative Reasoning/Scientific Method ........................................ 10-11
* Math ................................................................. 3-4
Life Science ........................................................................ 4
* Physical Science ............................................................. 3-4
Critical Inquiry and Aesthetic Analysis ......................................... 6
Aesthetic Analysis ..................................................................... 3
Critical Inquiry ......................................................................... 3

Support Courses

Support Courses ................................................................. 0-9

Students majoring in Computer Science are encouraged to complete the following courses in high school.
Advanced Placement High School Programming Course OR
CMSC 1513 Beginning Programming

* MATH 1533 Precalculus-Algebra OR
  MATH 1513 College Algebra OR Placement Score AND
  * MATH 1593 Plane Trigonometry OR Placement Score

* A grade of ‘C’ or better is required for either MATH 1513 or MATH 1533 and MATH 1593 to take MATH 2313.

Upon completion of the above courses, corresponding university core requirements will be satisfied. (These courses are required for this major regardless of previous degrees conferred.)

Major Requirements

Computer Science ......................................................... 80-81

Required ................................................................. 61

* CMSC 1613 Programming I
* CMSC 1621 Programming I Laboratory
* CMSC 2123 Discrete Structures
* CMSC 2613 Programming II
* CMSC 2621 Programming II Laboratory
* CMSC 2833 Computer Organization and Architecture I
* SE 3103 Object Oriented Software Design and Construction
* CMSC 3613 Data Structures and Algorithms
* CMSC 3621 Data Structures/Algorithms Lab
* CMSC 3833 Computer Organization and Architecture II
* CMSC 4003 Applications of Database Management Systems
* CMSC 4023 Programming Languages OR
  ^ CMSC 4173 Translator Design
  CMSC 4153 Operating Systems
  CMSC 4273 Theory of Computing
  SE 4283 Software Engineering I
  CMSC 4323 Computer and Network Security

American Historical and Political Analysis ........................................ 6
American National Government ................................................. 3
American History ..................................................................... 3

Cultural and Language Analysis ................................................. 3-4
Second Language ................................................................. 4
OR
Cultural Analysis ..................................................................... 3

Social and Behavioral Analysis ..................................................... 3

Life Skills ................................................................................ 5
Required Health Course ........................................................ 2
Elective Life Skills ..................................................................... 3

Minimum
Required Hours

^ CMSC 4401 Ethics in Computing
^ * CMSC 4513 Software Design and Development
^ MATH 2313 Calculus 1
^ MATH 2323 Calculus 2
^ MATH 2333 Calculus 3
^ MATH 3143 Linear Algebra
^ STAT 2113 Statistical Methods
^ STAT 2103 Introduction to Statistics for Sciences
^ STAT 4113 Mathematical Statistics

^ A grade of ‘C’ or better must be earned in all required CMSC, SE, MATH, and STAT courses.

* CMSC 4513 is recommended to be taken in the last semester prior to graduation.

Elective Science Courses .......................................................... 4-5

PHY 1114 General Physics I and Laboratory OR
PHY 2014 Physics for Science & Engineering I & Lab OR
CHEM 1103 General Chemistry I AND
CHEM 1112 General Chemistry I Recitation/Laboratory

Elective CMSC or SE courses ......................................................... 15

Any 3/4000 level CMSC or SE courses

6 hours of CMSC or SE electives may be taken at the 2000 level

SE 4513 may not be used to satisfy the CMSC or SE elective requirement.

No more than four (4) hours of Internship and Individual Study combined may be used to satisfy the CMSC or SE elective requirement.

Credit cannot be received for both CMSC 3303 and SE 4283.

Electives to bring total to ......................................................... 124
Program: Computer Science - continued
Major: Computer Science
Degree: Bachelor of Science (B.S.)

Minimum Required Hours

- CONTINUED FROM PREVIOUS PAGE -

Minimum Grade Requirements
Average in (a) all college course work, (b) course work at UCO,
and (c) major courses................................................................. 2.00

For other regulations pertaining to graduation, see
Academic Degree Requirements.

Accelerated BS/PSM
UCO’s P.S.M. (Professional Science Master’s) in Computational Science
has partnered with the B.S. in Computer Science - Computer Science
major so that approved students may take up to nine credit hours of
5000-level CMSC courses during their senior year of the major. These
courses will count toward both the B.S. and P.S.M. degrees. A formal
application to the P.S.M. Computational Science program and an ap-
proval from the Department of Computer Science are required. Require-
ments for the P.S.M. program are located in the UCO Graduate Catalog
under Computational Science - Computer Science, P.S.M.

Up to nine credit hours of the following courses can be used to satisfy
both the B.S. Computer Science - Computer Science and the P.S.M.
Computational Science - Computer Science:

CMSC  5043  Applications Database Systems
CMSC  5283  Software Engineering I (replaces SE 4283)
CMSC  5323  Computer and Network Security