B.S. IN COMPUTER SCIENCE

College of the Sciences and Mathematics

Curriculum

General Education Requirements (http://catalog.wcupa.edu/undergraduate/general-education-requirements)		
English Composition requirements		6
Mathematics requirement		3
MAT 151	Introduction to Discrete Mathematics [1]	
Public Speaking requirement		3
Science requirements		6
Behavioral & Social Science requirements		6
Humanities requirements		6
Arts requirement		3
Diverse Communities requirement		3
Interdisciplinary requirement		3
Writing Emphasis requirements		9
Student Electives		9
Major Requirements		
CSC 141	Computer Science I	3
CSC 142	Computer Science II	3
CSC 220	Foundations of Computer Science	3
CSC 240	Computer Science III	3
CSC 241	Data Structures & Algorithms	3
CSC 242	Computer Organization	3
CSC 301	Computer Security I	3
CSC 345	Programming Language Concepts/Paradigms	3
CSC 402	Software Engineering	3
Select one of the following:		3
CSC 416	Design/Construction Compilers	
CSC 417	User Interfaces	
CSC 496	Topics in Complex Large-Scale Systems	
Computer Science 300- and 400-Level Electives		
A minimum of 6 semester hours of 400-level courses is required. If CSC 416 and CSC 417 are both taken, one can be used here. Three semester hours of the 6-semester hour internship CSC 400 can be used here.		18
Related/Cognate Requirements		
ENG 368	Business and Organizational Writing	3
or ENG 371	Technical Writing	
SPK 208	Public Speaking [1]	3
or SPK 230	Business and Professional Speech Communication	
MAT 121	Introduction to Statistics I	3
MAT 161	Calculus I	4
MAT 122	Introduction to Statistics II	3
or MAT 162	Calculus II	
plus electives in science or mathematics (At least one general education science course must be a laboratory science course for science majors.)		8
Free Electives		
Select 3 semester hours		3
Total Minimum Credits Required		120

[1] Required courses that will count towards the general education requirements

Accelerated B.S. in Computer Science to M.S. in Computer Science Program

Students may substitute up to 4 M.S. Computer Science electives for B.S. Computer Science electives, excluding the combinations noted.

Select up to 4 graduate Computer Science electives to satisfy undergraduate elective requirements: [1]

CSC 525	Operating Systems
CSC 535	Networks and Data Communication
CSC 545	Database Systems Concepts
CSC 565	Compiler Design
CSC 575	Artificial Intelligence
CSC 581	Topics in Computer Science
CSC 582	Topics in Information Systems
CSC 583	Topics in Computer Security
CSC 584	Topics in Web Technology
CSC 585	User Interface In Java
CSC 586	Sytem Administration and Security
CSC 587	Web Services using XML and SOAP
CSC 588	Wireless Programming and Security
CSC 600	Advanced Seminar
CSC 603	Advanced Seminar in Security
CSC 604	Advanced Seminar Web Technology
Note: Students may NOT use the following combinations:	
Operating Systems: CSC 525 and CSC 331	
Networking: CSC 535 and CSC 336	
Database: CSC 545 and CSC 321	
Compilers: CSC 565 and CSC 416	

[1] Additional CSC 500-600 level courses will be considered under advisement.

Sample Course Plan

To track their individual degree progress, students are advised to access their Degree Progress Report (DPR) via myWCU regularly. For more information, visit wcupa.edu/DegreeProgressReport.

The following is a suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

Course	Title	Credits
Year One		
Semester One		
CSC 141	Computer Science I	3
MAT Course [1]		3
WRT 120	Effective Writing I	3
Behavioral / Social Science Course		3
Humanities Course		3
	Credits	15
Semester Two		
CSC 142	Computer Science II	3
MAT Course [1]		3
WRT 2XX		3
Behavioral / Social Science Course		3
Humanities Course		3
	Credits	15
Year Two		
Semester Three		
CSC 240	Computer Science III	3
MAT Course [1]		3
General Education Science Course		3
SPK 208 or SPK 230	Public Speaking or Business and Professional Speech Communication	3

Arts Course		3
	Credits	15
Semester Four		
CSC 241	Data Structures & Algorithms	3
MAT Course [1]		3
General Education Science Course		3
Interdisciplinary Course		3
Free Elective		3
	Credits	15
Year Three		
Semester Five		
CSC 242	Computer Organization	3
MAT Course or Free Elective [1]		3
Science Course for Major		3
CSC 301	Computer Security I	3
Diversity Course		3
	Credits	15
Semester Six		
CSC 220	Foundations of Computer Science	3
CSC 402	Software Engineering	3
Science Course for Major		3
ENG 368 or ENG 371	Business and Organizational Writing or Technical Writing	3
CSC Advanced Elective [2]		3
	Credits	15
Year Four		
Semester Seven		
CSC 345	Programming Language Concepts/ Paradigms	3
Science Course for Major		3
CSC Advanced Elective [2]		3
CSC Advanced Elective [2]		3
Free Elective		3
	Credits	15
Semester Eight		
CSC Advanced Elective [2]		3
CSC Advanced Elective [2]		3
CSC Advanced Elective [2]		3
CSC Advanced Elective [2]		3
Free Elective		3
	Credits	15
	Total Credits	120

1 *A student **not needing preCalc** (MAT 131) will take 4 MAT courses: MAT 121 Statistics I, MAT 151 Discrete Math, MAT 161 Calc I MAT 122 Statistics II OR MAT 162 Calc II.
*A student **needing preCalc** will take 5 MAT courses, one in place of a Free Elective.

2 One of these 7 courses must be a complex large-scale system course: CSC 416 Compilers, CSC 417 User Interfaces, CSC 496 Topics