

B.S. Computer Science (CSC)*College: Arts & Sciences*

Option 1: Systems

DEGREE REQUIREMENTS

Course requirements for all UNCW degrees include: (1) University Studies, (2) specific major requirements, and (3) sufficient elective hours for a combined total of a minimum of 124 hours.

(1) UNIVERSITY STUDIES

See University Studies sheet and/or information on the web at <http://www.uncw.edu/uc/basic/basic.html>

(2) MAJOR REQUIREMENTS – CSC Option 1 – Systems (Minimum 71 hours)

_____ CSC 100	Orientation to Computer Science (1)
_____ +CSC 121	Computer Science I (3) Prerequisite: MAT 111 or 115 (Meets Computer Competency Requirement)
_____ +CSC 133	Discrete Mathematical Structures (4) Prerequisite: MAT 111 or 115, or equivalent, Corequisite: CSC 121
_____ CSC 221	Computer Science II (4) Prerequisite: CSC 121
_____ CSC 242	Digital Logic, Computer Organization and Assembly Language (4) Prerequisites: CSC 121 and CSC 133
_____ CSC 332	Data Structures (3) Prerequisite: CSC 221, Pre/Corequisite: MAT 161
_____ CSC 340	Scientific Computing (3) Prerequisites: MAT 162 and CSC 221
_____ CSC 342	Operating Systems (3) Prerequisites: CSC 242 and 332
_____ CSC 360	Formal Languages and Computability (3) Prerequisites: CSC 242 and 332
_____ CSC 385	Professional and Ethical Issues in Computer Science (3) Prerequisites: ENG 101 or equivalent, junior or senior standing in computer science (Meets Oral Communication Competency Requirement)
_____ CSC 434	Programming Languages (3) Prerequisites: CSC 332 and CSC 360
_____ CSC 450	Software Engineering (3) Prerequisites: CSC 332 and senior standing (Meets Applied Learning Requirement)
_____ CSC 455	Database Design and Implementation (3) Corequisite: CSC 332
_____ +MAT 161	Calculus with Analytic Geometry (4) Prerequisite: MAT 112 or 115 or equivalent preparation
_____ MAT 162	Calculus with Analytic Geometry (4) Prerequisite: MAT 161
_____ +STT 215	Introduction to Statistics (3) Prerequisite: Satisfactory performance on the UNCW math test or MAT 105
_____ +*PHY 201 and +*202	General Physics (4) Coreq: MAT 161, General Physics (4) Prereq: PHY 201, Coreq: MAT 162
<u>or</u> +*BIO 240 and *241	Human Anatomy and Physiology I (3) Prerequisites: BIO 201, CHM 101, Human Anatomy and Physiology II (3) Prerequisite: *BIO 240
<u>or</u> +*CHM 101 and *102	General Chemistry (4), General Chemistry (4) Prerequisite: CHM 101
_____	Select one additional lab science course chosen from the following:
	+*CHM 101 (if not selected above) General Chemistry (4)
	*CHM 211 and CHML 211 Organic Chemistry I (4) Prerequisite: CHM 102
	+*GLY 101 Principles of Geology (4)
	+*GLY and GLYL 120 Environmental Geology (4)
	+*PHY 201 (if not selected above) General Physics (4) Corequisite: MAT 161
	*PHY 211 Electric Circuits (4) Corequisite: MAT 161
	+*BIO 201 Principles of Biology: Cells (4)
	+*BIO 202 Principles of Biology: Biodiversity (4)
	*BIO 240 (if not selected above) Human Anatomy and Physiology I (4) Prerequisites: BIO 201, CHM 101
_____ CSC _____	300 or 400 level CSC course approved by the advisor
_____ CSC _____	300 or 400 level CSC course approved by the advisor
_____ CSC _____	300 or 400 level CSC course approved by the advisor

A grade point average of “C” (2.00) or better computed over the CSC courses and all the courses used to fulfill the requirements of the major are required.

**These courses either include a lab*

+May also be used to satisfy University Studies requirements

(3) ELECTIVES

_____ Elective hours to equal a minimum of 124 hours

Requirements to declare PRE-CSC: Completion of 24 hours

Requirements to declare CSC: CSC 100, CSC 121, 133, and 221 with a GPA of at least 2.5 on these four courses.

For further information, see the CSC website: <http://www.uncw.edu/csc> and

<http://uncw.edu/catalogue/undergraduate%2011-12/Undergraduate%20Catalogue%20Master%20Word.pdf#page=127>.

COMPUTER SCIENCE COURSES

CSC 100	Orientation to Computer Science (1)
CSC 105	Introduction to Computing and Computer Applications (3) [For non-CSC majors]
CSC 110	Fluency in Information Technology (3)
CSC 112	Introduction to Computer Programming (3) Prerequisite: MAT 111 or 115
CSC 121	Computer Science I (3) Prerequisite: MAT 111 or 115
CSC 133	Discrete Mathematical Structures (4) Prerequisite: MAT 111 or 115 or equivalent, Coreq: CSC 121
CSC 204	Multimedia Systems (3) Prerequisite: CSC 105 or 110 or equivalent
CSC 220	(ART 220) (FST 220) 3-D Computer Graphics Tools and Literacy (3) Prerequisites: CSC 105, 121 or consent of instructor
CSC 221	Computer Science II (4) Prerequisite: CSC 121
CSC 242	Digital Logic, Computer Organization and Assembly Language (4) Prerequisites: CSC 121 and 133
CSC 255	Introduction to Databases: Techniques and Technologies (3)
CSC 275	Topics in Computer Science and Technology (3) Prerequisite: Consent of instructor
CSC 320	(ART 320) (FST 320) Computer Animation (3) Prerequisite: CSC 220 (ART 220) (FST 220) or consent of instructor
CSC 332	Data Structures (3) Prerequisite: CSC 221, Pre/Corequisite: MAT 161
CSC 340	Scientific Computing (3) Prerequisites: MAT 162 and CSC 221
CSC 342	Operating Systems (3) Prerequisites: CSC 242 and 332
CSC 344	Computer Networks (3) Prerequisite: CSC 242
CSC 360	Formal Languages and Computability (3) Prerequisites: CSC 242 and 332
CSC 370	Computer Graphics (3) Prerequisites: CSC 332 and MAT 162
CSC 385	Professional and Ethical Issues in Computer Science (3) Prerequisites: ENG 101 or equivalent and junior or senior standing in computer science
CSC 415	(515) Artificial Intelligence (3) Prerequisite: CSC 332
CSC 421	Computer Gaming (3) Prerequisites: CSC 320 (ART 320) (FST 320), 340, and 370
CSC 430	(FST 430) Digital Special Effects (3) Prerequisites: CSC 332 and 220, or FST 220 and 302
CSC 434	Programming Languages (3) Prerequisites: CSC 332 and 360
CSC 437	(CSC 537) Parallel Computing (3) Prerequisite: CSC 340
CSC 442	Computer System Architecture (3) Prerequisite: CSC 242
CSC 446	(CSC 546) Grid Computing (3) Prerequisite: CSC 344 or 332
CSC 450	Software Engineering (3) Prerequisites: CSC 332 and senior standing
CSC 455	Database Design and Implementation (3) Corequisite: CSC 332
CSC 457	Compiler Construction (3) Prerequisites: CSC 434 and senior standing
CSC 475	Topics in Computer Science (3) Prerequisites: Senior standing and consent of instructor
CSC 491	Directed Individual Study (1-3) Prerequisites: Overall GPA of at least 2.50 and a GPA in CSC courses of at least 2.80, junior or senior standing, and consent of instructor, department chair and dean
CSC 495	Seminar in Computer Science (1) Prerequisites: Junior or senior standing and consent of instructor
CSC 498	Internship in Computer Science (1-3) Prerequisites: Overall GPA of at least 2.50 and a GPA in CSC of at least a 2.80
CSC 499	Honors Work in Computer Science (2-3) Prerequisite: Eligibility for honors program