

B.S. Computer Science (CSC)

(Option 1 - Systems)

*College: Arts & Sciences***DEGREE REQUIREMENTS**

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

(1) BASIC STUDIES (45 semester hours)

See Basic Studies sheet and/or information on the WEB at <http://www.uncw.edu/gc/basicstudies.htm>

(2) MAJOR REQUIREMENTS – CSC Option 1 – Systems (Minimum 69+ hours)

Check when complete:

- ____+CSC 121 Introduction to Computer Science (3) Prerequisite: MAT 110/111 or 115
(Meets **Computer Competency Requirement**)
- ____ CSC 133 Discrete Structures (4) Prerequisite: MAT 110/111 or 115
- ____ CSC 221 Introduction to Computer Science II (4) Prerequisite: CSC 121; corequisite: CSC 133
- ____ CSC 242 Digital Logic and Computer Organization (3) Prerequisites: CSC 121 and CSC 133
- ____ CSC 332 Data Structures (3) Prerequisite: CSC 221; prerequisite or corequisite CSC 241 and MAT 161
- ____ CSC 340 Scientific Computing (3) Prerequisites: MAT 162 and CSC 221
- ____ CSC 342 Operating Systems (3) Prerequisite: CSC 332
- ____ CSC 360 Formal Languages and Computability I (3) Prerequisite: CSC 242; pre- or corequisite: CSC 332
- ____ CSC 385 Professional and Ethical Issues in Computer Science (1) Prerequisite: Junior or senior standing in CSC
- ____ CSC 434 Programming Languages (3) Prerequisite: CSC 332 and CSC 360
- ____ CSC 450 Software Engineering (3) Prerequisite: CSC 332 and senior standing
- ____ CSC 455 Data Base Management Systems (3) Corequisite: CSC 332
- ____+MAT 161 Calculus with Analytical Geometry (4) Prerequisite: MAT 112 or 115 or equivalent preparation in algebra and trigonometry
- ____+MAT 162 Calculus with Analytical Geometry (4) Prerequisite: MAT 112 or 115 or equivalent preparation in algebra and trigonometry
- ____+STT 215 Introduction to Statistics (3) Prerequisite: MAT 110, 111 or 115
- ____+PHY 201* and 202* or +BIO 240* and 241* or +CHM 101* and 102*
- ____ Select one additional lab science course chosen from
- | | |
|-----------------------------------|---|
| +*CHM 101 (if not selected above) | General Chemistry (4) |
| *CHM and CHML 211 | Organic Chemistry (4) Prerequisite: CHM 102 |
| +*GLY 101 | Physical Geology (4) |
| +*GLY and GLYL 120 (EVS 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 204 | Principles of Biology (4) |
| +*BIO 205 | Plant Biology (4) Prerequisite: BIO 204 |
| +*BIO 206 | Animal Biology (4) Prerequisite: BIO 204 |
| +*BIO 240 (if not selected above) | Human Anatomy and Physiology (4) |
- ____ CSC ____ 300 or 400 level CSC course approved by the advisor
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- ____ CSC 495 or any other approved oral intensive course – see 2005-2006 catalogue, p. 100
(Meets **Oral Communication Competency Requirement**)

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 is required.

**These courses either include a lab or require a corequisite lab*

+May also be used to satisfy Basic 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 121, 133, and 221 with a gpa of at least 2.5 on these three courses.

For further information see the CSC WEB sites: <http://www.uncw.edu/csc> and <http://www.uncw.edu/COURSES/csc.htm> and <http://www.uncw.edu/catalogue/Cas.htm#COMPUTER%SCIENCE>

COMPUTER SCIENCE COURSES

- CSC 105. Introduction to Computing and Computer Applications (3)**
CSC 110. Fluency in Information Technology (3)
CSC 112. Introduction to Computer Programming (3) Prerequisite: MAT 111 or 115
CSC 121. Introduction to Computer Science I (3) Prerequisite: MAT 111 or 115
CSC 133. Discrete Structures (4) Prerequisite: MAT 111 or 115
CSC 220. (ART 220) (FST 220) 3-D Computer Graphics Tools and Literacy (3) Prerequisite: CSC 105, 121 or permission of instructor
CSC 221. Introduction to Computer Science II (4) Prerequisite: CSC 121
CSC 241. Introduction to Computer Systems & Assembly Languages (3) Prerequisite: CSC 121; corequisite CSC 221
CSC 242. Digital Logic and Computer Organization (3) Prerequisite: CSC 121 and CSC 133
CSC 304. Multimedia Systems (3) Prerequisite: CSC 112 or 121
CSC 320. (ART 320)(FST 320) Computer Animation (3) Prerequisite: CSC 220 (ART 220)(FST 220) or permission of instructor
CSC 325. (MAT 325) Numerical Algorithms (3) Prerequisite: CSC 112 or 121, MAT 162
CSC 332. Data Structures (3) Prerequisite: CSC 221; prerequisite or corequisite MAT 161
CSC 337. Parallel Computing (3) Prerequisite: CSC 242 and 332
CSC 340. Scientific Computing (3) Prerequisites: MAT 162 and CSC 221
CSC 342. Operating Systems (3) Prerequisite: CSC 242 and CSC 332
CSC 344. Computer Networks (3) Prerequisite: CSC 242
CSC 360. Formal Languages and Computability I (3) Prerequisite: CSC 242 and CSC 332
CSC 370. Computer Graphics (3) Prerequisite: CSC 332 and MAT 162
CSC 385. Professional and Ethical Issues in Computer Science (1) Prerequisite: Junior or senior standing in CSC
CSC 415. (515) Artificial Intelligence (3) Prerequisite: CSC 332
CSC 422. Performance Evaluation of Computer Systems (3) Prerequisite: STT 215, MAT 162, and CSC 221
CSC 425. (525; MAT 425/525) Numerical Analysis (3) Prerequisite: MAT 325, 335, and 361
CSC 434. Programming Languages (3) Prerequisite: CSC 332 and CSC 360
CSC 442. Computer System Architecture (3) Prerequisite: CSC 242
CSC 444. Network Programming (3) Prerequisite: CSC 342 and CSC 344
CSC 450. Software Engineering (3) Prerequisite: CSC 332 and senior standing
CSC 453. Object-Oriented Analysis and Design (3) Prerequisite: CSC 332 and senior standing
CSC 455. Data Base Management Systems (3) Prerequisite: CSC 332
CSC 457. Compiler Construction (3) Prerequisite: CSC 434 and senior standing
CSC 460. Formal Languages and Computability II (3) Prerequisite: CSC 360
CSC 475. Topics in Computer Science (3) Prerequisite: Senior standing and permission of instructor
CSC 491. Directed Individual Study (1-3) Prerequisite: Overall GPA of at least 2.00, junior or senior standing, and consent of instructor, department chair and dean
CSC 495. Seminar in Computer Science (1) Prerequisite: Junior or senior standing and consent of instructor
CSC 498. Internship in Computer Science (1-3) Prerequisite: 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