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/uc/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, Computer Organization and Assembly Language (4) 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/catalogue/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 242. **Digital Logic, Computer Organization and Assembly Language** (4) Prerequisite: CSC 121 and CSC 133
CSC 255. **Database Management With Internet Applications** (3)
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) Corequisite: 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