B.S. Computer Science (CSC)

**College: Arts & Sciences**

Option 2: Geographic Information Systems (GIS) Concentration

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.

### MAJOR REQUIREMENTS – CSC Option 2 – GIS (76 hours)

**Core Courses:** (55 hours)

- +CSC 131 Introduction to Computer Science (4) Prerequisite: MAT 111 or 115
- +CSC 133 Discrete Mathematical Structures (3) Prerequisite: MAT 111 or 115, or equivalent
- CSC 231 Introduction to Data Structures (4) Prerequisite: CSC 131, Corequisite: CSC 133
- CSC 242 Computer Organization (3) Prerequisites: CSC 131 and 133
- CSC 331 Object-Oriented Programming and Design (3) Prerequisite: CSC 231
- CSC 344 Computer Networks (3) Prerequisite: CSC 231 and CSC 242
- CSC 360 Formal Languages and Computability (3) Prerequisites: CSC 231 and 242
- CSC 380 Design and Analysis of Algorithms (3) Prerequisites: CSC 133, 231, and MAT 161
- CSC 385 Professional and Ethical Issues in Computer Science (3) Prerequisites: ENG 101 or equivalent and junior/senior standing in computer science or information technology (Meets Oral Communication Requirement)
- +MAT 161 Calculus with Analytical Geometry I (4) Prerequisite: MAT 112 or 115 or equivalent preparation
- *MAT 162 Calculus with Analytical Geometry II (4) Prerequisite: MAT 161
- +BAN 280 Statistical Analysis for Business and Economics (3) Prerequisite: MAT 111
- +STT 215 Introduction to Statistics (3) Prereq: Satisfactory performance on the UNCW math test or MAT 105
- CSC Choose 6 additional hours in CSC at the 300-400 level; must be approved by advisor.
- CSC

**GIS Concentration:** (21 hours) Complete requirements for Geospatial Technologies Minor

- **GGY 215** The Digital Globe (3)
- **GGY 220** Cartography (3) Prerequisite: GGY 130 or GGY 140
- **GGY 281** Introduction to Geographic Information Systems (3) Prereq: GGY 130 or 140 or EVS 195 or consent of instructor
- **GGY 322** Introduction to Remote Sensing (3) Prereq: GGY 130 or GLY 120 or GGY 215
- **GGY 328** Intermediate Geographic Information Systems (3) Prerequisite: GGY 281
- or **GGY 424** Advanced Geographic Information Systems (3) Prereq: GGY 328
- or **GGY 426** Environmental Geographic Information Systems (3) Prereq: GGY 328
- or **GGY 428** Advanced Remote Sensing (3) Prereq: GGY 322
- Choose 12 hours of electives, 6 credit hours at 300-level or above selected from the following:

**Note:** At least 9 hours must come from courses outside of the student’s major.

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 require a lab
+May also be used to satisfy University Studies Foundations & Approaches and Perspectives requirements

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Requirements to declare CSC: Completion of 24 hours

For further information, see the CSC website: [http://www.uncw.edu/csc](http://www.uncw.edu/csc) and [http://catalogue.uncw.edu](http://catalogue.uncw.edu).

This document is considered an unofficial guide. Please refer to your degree audit for the latest updates.

6/5/2017