



**University of North Carolina Wilmington  
PROPOSAL FOR UNDERGRADUATE CURRICULUM CHANGE**

**Course description change as it would appear in the catalogue** (*Course description change: 50 words or less; include prefix, number, title, credit hours, crosslisting, pre/corequisites, etc.*)

**Justification for request or degree change:**

Yes    No    **Does this proposal require University Curriculum Committee (UCC) or Faculty Senate approval** (refer to <http://www.uncw.edu/facsen/ucc/>)? (*If yes, after college/school curriculum committee approval, forward proposal to the UCC and complete and submit the appropriate UCC form(s). If approved, this proposal must be signed by the UCC Chair and Faculty Senate President and forwarded to the Provost.*)

**Recommended and approved by:**

|   |      |   |      |
|---|------|---|------|
| Department Chairperson                            | Date | Dean of the College or School           | Date |
| Chair, College or School Curriculum Committee     | Date | *Chair, University Curriculum Committee | Date |
| Teacher Education Council ( <i>WSE use only</i> ) | Date | *President, Faculty Senate              | Date |
|   |      | Provost                                 | Date |

*\*Obtain signatures of the UCC Chair and the Faculty Senate President only if required for this proposal.*

**Forms not filled out completely or lacking documentation will be returned.**

## **Minor in Geospatial Technologies**

August 2009

The Geospatial Technologies Minor provides a multidisciplinary foundation for understanding spatial perspective and developing spatial analysis skills. The Minor is appropriate for students interested in careers that utilize mapping and geospatial technology tools in such disciplines as geography, geology, biology, ecology, natural resources management, political science, business, engineering, computer science, information technology, sociology, criminology, anthropology, epidemiology, and public health. Mapping spatial relationships between human and environmental phenomena is critical to understanding contemporary issues and identifying successful strategies to resolve complex problems.

The minor in Geospatial Technologies is designed to help students develop critical thinking and technology skills that will allow for careers in the rapidly expanding opportunities provided by geospatial and mapping sciences. Complementing their major field of study, an enhanced understanding of geospatial technology will provide students with the necessary expertise to meet the demands of their diverse careers in the global workplace.

**Requirements for a Minor in Geospatial Technologies:** requires a minimum of 21 credit hours including 9-10 hours of core courses and 12 hours of electives. At least 6 hours of electives must be in courses at the 300 level or above.

Students must earn at least a "C" (2.00) average in courses counted towards the Geospatial Technologies minor. This minor is available for students majoring in any discipline including geography and geology. A maximum of 12 credit hours counted toward a student's major may be applied toward completion of core or elective requirements in Geospatial Technologies.

### **Required Core Courses (9-10 credits):**

GGY 215 (3): The Digital Globe or GGY 220 (3): Cartography

GGY 222 (3): Quantitative Methods in Earth Sciences or STT 215 (3): Introduction to Statistics

GGY 328 (3): Introduction to Geographic Information Systems or EVS 281 (4): Introduction to GIS in Environmental Studies

If a student completes both GGY 215 and GGY 220, GGY 215 will count towards the core requirements and GGY 220 will count as an elective.

### **Electives (12 credits): At least 6 hours at 300-level or above**

ANT 311 (3): Field Methods in Archaeology (3-6 credits, but only 3 count towards the minor)

BIO 366 (3): Ecology

BIOL 366 (1): Ecology Laboratory

BIO 466 (3): Conservation Biology

BIO 478 (3): Global Environmental Problems

BIO 480 (3): Field Studies in Biology (1-6 credits, but only 3 count towards the minor)

CSC 332 (3): Data Structures

CSC 370 (3): Computer Graphics

CSC 415 (3): Artificial Intelligence

CSC 455 (3): Database Management

GGY 205 (3): Practical Methods in Geography

GGY 424 (4): Advanced GIS

GGY 426 (4): Environmental GIS

GGY 422 (3): Remote Sensing in Environmental Analysis

GLY 171 (3): Applied Physical Geology

GLY 200 (3): Methods in Geology

GLY 220 (3): Field Methods in Environmental Sciences

GLY 470 (6): Field Course in Geology

MIS 213 (3): Introduction to Information Systems and Technology

MIS 315 (3): Management of Database Systems

Other courses (such as GGY 498 and 499) may be applied towards the minor at the discretion of the Geospatial Technologies minor coordinator or the Chair of the Department of Geography and Geology.

**Justification:**

Complementing their major field of study, an enhanced understanding of geospatial technology will provide students with the necessary expertise to meet the demands of their diverse careers in the global workplace. The minor in Geospatial Technologies has a specific focus on digital mapping and spatial analysis techniques, but it is also beneficial for students who pursue careers utilizing this technology to have a foundation in computer science and information technology, as well as field-based, or real-world experience conducting mapping projects. Therefore, this minor is interdisciplinary and as such, any major at UNCW can enroll.

Because this minor is available to students majoring in any discipline at UNCW including geography and geology, a maximum of 12 credit hours counted toward a student's major may also be applied toward completion of core or elective requirements in the Geospatial Technologies minor.