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2013-2014 LONG SIGNATURE SHEET

Proposal Number: GES 12-5-2013

Proposal Title: Proposal to Revise Geography BA & BS Undergraduate Curriculum

Originating Department: Geography and Earth Sciences

TYPE OF PROPOSAL: UNDERGRADUATE X GRADUATE _____ UNDERGRADUATE & GRADUATE _____
(Separate proposals sent to UCCC and Grad. Council)



DATE RECEIVED	DATE CONSIDERED	DATE FORWARDED	ACTION	SIGNATURES
12/10/2013	12/13/2013	01/14/2014	Approved	DEPARTMENT CHAIR <i>Craig Allan</i> Craig Allan
			Approved	COLLEGE CURRICULUM COMMITTEE CHAIR <i>Oscar Lombr...</i>
			Approved	COLLEGE FACULTY CHAIR (if applicable) <i>Steven Sabo</i> STEVEN SABO
2/28/14		2/28/14	Approved	COLLEGE DEAN <i>Cheryl C. Brody</i> C. BRODY
			Approved	GENERAL EDUCATION (if applicable; for General Education courses)
			Approved	UNDERGRADUATE COURSE & CURRICULUM COMMITTEE CHAIR (for undergraduate courses only)
			Approved	GRADUATE COUNCIL CHAIR (for graduate courses only)
				FACULTY GOVERNANCE ASSISTANT (Faculty Council approval on Consent Calendar)
				FACULTY EXECUTIVE COMMITTEE (if decision is appealed)



UNC CHARLOTTE

LONG FORM

COURSE AND CURRICULUM PROPOSAL

***To:** Chair, Undergraduate College Curriculum Committee

From: Craig Allan, Chair – Department of Geography and Earth Sciences

Date: December 6, 2013

Re: Revisions to Curriculum for the BA and BS in Geography

The Long Form is used for major curriculum changes. Examples of major changes can include: creation of a new major, creation of a new minor, creation of a new area of concentration, or significant changes (more than 50%) to an existing program (Note: changing the name of an academic department does not automatically change the name(s) of the degree(s). The requests must be approved separately by the Board of Governors.)

Submission of this Long Form indicates review and assessment of the proposed curriculum changes at the department and collegiate level either separately or as part of ongoing assessment efforts.

Revised 08/01/11
OAA/lz

*Proposals for undergraduate courses should be sent to the Undergraduate Course and Curriculum Committee Chair. Proposals related to both undergraduate and graduate courses, (e.g., courses co-listed at both levels) must be sent to both the Undergraduate Course and Curriculum Committee and the Graduate Council.

I. HEADING AND PROPOSAL NUMBER

- A. **HEADING.** Place a three line double-spaced heading containing the following information at the top of the first page of the proposal and beginning at the left margin:

University of North Carolina at Charlotte

(Specify: New or Revised; Undergraduate or Graduate; or Undergraduate and Graduate)

Course and Curriculum Proposal from: (Name of Originating Unit)

- B. **PROPOSAL NUMBER.** Place the proposal number in the upper right corner of page one of the proposal. The proposal number will consist of the abbreviation of the originating unit and the date the proposal was approved by the unit, e.g., BIO 7-24-02. If more than one proposal is passed on a specific date, assign alpha suffixes to distinguish them (e.g., BIO 7-24-02a and BIO 7-24-02b). Submit multiple courses as a single proposal when possible.

- C. **TITLE.** Indicate a brief descriptive title for the proposal, e.g., "*Establishment of a Minor in Communication Studies.*"

II. CONTENT OF PROPOSALS

A. PROPOSAL SUMMARY.

1. **SUMMARY.** State clearly and concisely the actions proposed (e.g., "the Biology Department proposes to add four new elective courses to the undergraduate curriculum: BIO 2222, BIO 3456, BIO 2345, and BIO 3210).

The Department of Geography and Earth Sciences proposes to add three courses new courses to be required of all Geography majors. Two of these courses are at the introductory-level; one is a senior seminar. We also propose a new elective course GEOG 4180; to renumber GEOG 4120 to GEOG 3120; and alter the prerequisites to GEOG 3120. The proposal also seeks to combine GEOG 2100 and 2101 into a single course to be numbered GEOG 2102 and remove GEOG 2100 and 2101 from the catalog.

The Department also proposes to increase the number of hours required for the BA from 36 to 40; change the required hours for the BS from 44 to 51; and change the concentrations associated with the BS degree to more accurately reflect the content of each concentration.

With respect to concentrations, we propose to (1) rename the concentration in Economic Geography to Urban, Social and Economic (USE) Geography, (2) rename the Community and Regional Planning concentration to Urban and Regional Planning, and (3) rename the GIS concentration to GIScience and Technology and (4) revise the description of each concentration. New course proposals are attached.

B. JUSTIFICATION.

1. Identify the need addressed by the proposal and explain how the proposed action meets the need.

For several years the Department's ~~faculty have~~ faculty has discussed ways in which our curriculum can be made more relevant to students. We have made several strategic hires with this in mind. The new courses and proposed degree changes will provide students with a better understanding of how geographic studies and analysis fit into their everyday lives, making the programs more relevant to today's changing global economy and society, and emphasizing the tools, techniques and perspectives associated with them. Adding four hours to the Geography B.A. (40 total) and seven hours to the Geography B.S. (51 total) is in line with other peer institutions. For example, a B.A. in Geography at UNCG requires 40 hours; a B.S. in Applied Geography from East Carolina University requires 49 hours.

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2. Discuss prerequisites/corequisites for course(s) including class-standing, admission to the major, GPA, or other factors that would affect a student's ability to register.

There are no prerequisites associated with newly proposed introductory courses. We have added prerequisites to some courses that are already part of our curriculum. These prerequisites are intended to better ground students in the theory and methods of Geography before they advance to higher level courses. In some cases (i.e. the proposed Professional Development Seminar), senior standing, in addition to GEOG 2110, is the only prerequisite; in others, existing courses and the two newly proposed introductory courses will serve as prerequisites (i.e. GEOG 4120 Fundamentals of GIS which will be renumbered as GEOG 3120 and will have two prerequisites: GEOG 1103- Spatial Thinking and our existing required course of all majors GEOG 2110 – Introduction to Geographic Research. GEOG 1103 – Spatial Thinking will replace GEOG 2103 as a required course. Finally, the new course GEOG 4180 will have GEOG 3120 as a prerequisite.

Combining GEOG 2100 - 2100 Maps and Graphs with GEOG 2101 - Cartography Laboratory into one 4-credit course, GEOG 2102, insures every student takes the lab concurrently with the lecture class.

Renumbering GEOG 4120 to GEOG 3120 more accurately reflects the level of instruction and more effectively prepares students to pursue higher level (e.g. 4000 level) courses in GIS.

Admission to the program (GPA of 2.0 or better) will not change and no other factors should affect students' ability to register.

3. Demonstrate that course numbering is consistent with the level of academic advancement of students for whom it is intended.

New courses to be added to curriculum are all numbered according to campus policy:

GEOG 1103 – Spatial Thinking (a new, required introductory course for majors that replaces GEOG 2103 as a requirement. Note the library consultation refers to this course as GEOG 1000)

GEOG 1110 – Introduction to Urban and Regional Planning (a new, required introductory course for majors – (Note the library consultation for this course refers to it as GEOG 2000 because it has been taught once as a topics course)

GEOG 4180 – Web GIS (a new elective course) – Web GIS is an emerging topic in the field of GIS; the second digit of this course reflects its topical nature (Note: Library consultation refers to GEOG 4018).

GEOG 4600 – Professional Development Seminar (a new seminar course open only to seniors). Note: The library consultation form refers to this course as GEOG 4000)

Renumbered Courses:

GEOG 2100 – Maps and Graphs (3) and GEOG 2101 – Cartography Laboratory (1) are really the lecture and lab sections of the same course. Renumbering/ combining them as GEOG 21020 – Introduction to Cartographic Design (4) assures students will take the lab section concurrently with the lecture.

GEOG 4120 – Fundamentals of GIS to be renumbered as GEOG 3120 – Fundamentals of GIS is consistent with course numbering policy, better reflects the level of instruction associated with the course, and is intended to prepare students for more advanced course work in GIS.

4. In general, how will this proposal improve the scope, quality and/or efficiency of programs and/or instruction?

It has been our experience that many students take upper-level course work without gaining the requisite knowledge to be successful. The newly proposed course in Spatial Thinking will ground students in basic geographic concepts and train them to think in terms of spatial relations.

Introduction to Urban and Regional Planning will further expose students to what urban planning is, what planners do, and the career options available to them as Geographers upon graduation. Further, students pursuing a BS in Geography can choose a concentration in Urban and Regional Planning but, to date, we have never offered an introductory course to the field of planning. This course will better prepare those who choose the Urban and Regional Planning concentration

Professional Development Seminar is intended to serve as both a capstone course in geography, synthesizing and integrating the major themes, concepts, theories and applications in geography. It is also intended to prepare seniors for the world of work as professional geographers or further graduate studies.

Courses to be renumbered better reflect the logical sequence in which they should be taken.

5. If course(s) has been offered previously under special topics numbers, give details of experience including number of times taught and enrollment figures.

Introduction to Urban and Regional Planning has been taught once as a 2000-level topics course. Because the course is taught by one of our new hires, and its offering came shortly before the start of the fall 2013 semester, only 5 students enrolled. As a required course,

and one that might be of general interest students outside of Geography, we expect enrollments of 25-30 students per semester.

C. IMPACT. Changes to courses and curricula often have impacts both within the proposing department as well as campus-wide. What effect will this proposal have on existing courses and curricula, students, and other departments/units? Submit an Impact Statement that fully addresses how you have assessed potential impacts and what the impacts of this proposal might be. Consider the following:

1. What group(s) of students will be served by this proposal? (Undergraduate and/or graduate; majors and/or non-majors, others? Explain). Describe how you determine which students will be served.

All newly proposed courses and renumbered courses will be open to undergraduates only. Proposed introductory courses will be open to all UNC Charlotte students regardless of their major with no required prerequisites.

Other course and curriculum changes will affect Geography majors only. The proposed Professional Development Seminar will be open only to Geography majors with senior standing. The renaming and updating of the other three courses will only affect students pursuing a BS in Geography though its impact will be minimal and students, in consultation with their advisors, will generally tailor their own course of study. The proposed changes will affect students who declare their Geography major in, or after, the fall 2014 semester. Existing majors will be "grandfathered" and thus not affected.

2. What effect will this proposal have on existing courses and curricula?

- a. When and how often will added course(s) be taught?

GEOG 1103 Spatial Thinking (Fall, Spring, Summer)
GEOG 1110 Intro. to Urban and Regional Planning (Fall)
GEOG 2102 Intro. to Cartographic Design (Fall, Spring)
GEOG 3120 Fundamentals of GIS (Fall, Spring, Summer)
GEOG 4180 Web GIS (Spring)
GEOG 4600 Professional Seminar (Spring)

- b. How will the content and/or frequency of offering of other courses be affected?

GEOG 1103 will rotate among faculty specializing in GIS and will be coordinated such that it will not impact regular course offerings.

GEOG 1110 will part of the regular teaching rotation of a newly hired urban planner in the department and therefore not affect the content or frequency of other course offerings.

Combining GEOG 2100 and GEOG 2101 into GEOG 2102 will not affect the frequency with which it is offered.

Because GEOG 3120 is simply being renumbered it will have no impact on the content or frequency of other courses.

GEOG 4180 will require a GEOG 3120 as a prerequisite. However GEOG 3120 will be a required course for those concentrating in GIScience and Technology and should, therefore, not affect the frequency with which GEOG 3120 is offered.

As a 1 credit hour course, GEOG 4600 will rotate among Geography faculty. Those teaching GEG 4600 will do so as an overload such that regular course offerings will not be affected.

c. What is the anticipated enrollment in course(s) added (for credit and auditors)?

GEOG 1103: 25-30
GEOG 1110: 25-30
GEOG 21020: 15-20
GEOG 3120: 15-20
GEOG 4180: 12-20
GEOG 4600: 20-25

d. How will enrollment in other courses be affected? How did you determine this?

The enrollment impact on other course should be minimal. The proposed degree changes add to the number of hours required for both the BA and BS degrees. Thus, course enrollments within the department should not be adversely affected. However, given the added number of hours, students will have slightly fewer options for extra-departmental electives.

e. Identify other areas of catalog copy that would be affected, including within other departments and colleges (e.g., curriculum outlines, requirements for the degree, prerequisites, articulation agreements, etc.)

N/A. The only catalog copy affected will be that of the Department of Geography and Earth Sciences.

III. RESOURCES REQUIRED TO SUPPORT PROPOSAL.

When added resources are not required, indicate "none". For items which require "none" explain how this determination was made.

A. **PERSONNEL.** Specify requirements for new faculty, part-time teaching, student assistants and/or increased load on present faculty. List by name qualified faculty members interested in teaching the course(s).

No new personnel will be required. All proposed courses and curriculum changes will be accommodated by existing faculty.

GEOG 1103: Wenwu Tang, Eric Delmelle, Jean-Claude Thill

GEOG 1110: Robert Boyer, Janni Sorensen

GEOG 21020: Laurie Garo; Eric Delmelle

GEOG 3120: Eric Delmelle; Wenwu Tang; Laurie Garo

GEOG 4180: Wenwu Tang; Eric Delmelle

GEOG 4600: Initially Heather Smith, Sara Gagne. Afterwards, Geography faculty will rotate and teach this 1 credit course as an overload.

B. **PHYSICAL FACILITY.** Is adequate space available for this course?

Current facilities and space are adequate.

C. **EQUIPMENT AND SUPPLIES:** Has funding been allocated for any special equipment or supplies needed?

No special equipment or supplies are needed.

- D. **COMPUTER.** Specify any computer usage (beyond Moodle) required by students and/or faculty, and include an assessment of the adequacy of software/computing resources by available for the course(s).

Existing computer facilities and usage are adequate.

- E. **AUDIO-VISUAL.** If there are requirements for audio-visual facilities beyond the standard classroom podiums, please list those here.

Existing audio-visual facilities are adequate.

- F. **OTHER RESOURCES.** Specify and estimate cost of other new/added resources required, e.g., travel, communication, printing and binding.

No other resources will be required.

- G. **SOURCE OF FUNDING.** Indicate source(s) of funding for new/additional resources required to support this proposal.

No additional funding will be needed.

IV. CONSULTATION WITH THE LIBRARY AND OTHER DEPARTMENTS OR UNITS

- A. **LIBRARY CONSULTATION.** Indicate written consultation with the Library Reference Staff at the departmental level to ensure that library holdings are adequate to support the proposal prior to its leaving the department. (Attach copy of Consultation on Library Holdings).

See Attached

- B. **CONSULTATION WITH OTHER DEPARTMENTS OR UNITS.** List departments/units consulted in writing regarding all elements outlined in IIC: Impact Statement, including dates consulted. Summarize results of consultation and attach correspondence. Provide information on voting and dissenting opinions (if applicable).

College of Education has been contacted about changes to the Geography B.A. that might affect those pursuing a minor for education licensure purposes. We are waiting for their response and will forward as soon as it is received.

V. INITIATION, ATTACHMENTS AND CONSIDERATION OF THE PROPOSAL

- A. **ORIGINATING UNIT.** Briefly summarize action on the proposal in the originating unit including information on voting and dissenting opinions.

The proposal was circulated to the entire faculty five days prior to its consideration. At the faculty meeting held on Friday December 13, 2013 it was discussed and voted upon with 18 in favor, 0 opposed, and 1 abstention.

B. CREDIT HOUR. (Mandatory if new and/or revised course in proposal)

Review statement and check box once completed:

- The appropriate faculty committee has reviewed the course outline/syllabus and has determined that the assignments are sufficient to meet the University definition of a credit hour.

C. ATTACHMENTS.

1. CONSULTATION: Attach relevant documentation of consultations with other units. – N/A
2. COURSE OUTLINE/SYLLABUS: For undergraduate courses attach course outline(s) including basic topics to be covered and suggested textbooks and reference materials with dates of publication. For Graduate Courses attach a course syllabus. Please see Boiler Plate for Syllabi for New/Revised Graduate Courses.

See below

3. PROPOSED CATALOG COPY: Copy should be provided for all courses in the proposal. Include current subject prefixes and course numbers, full titles, credit hours, prerequisites and/or corequisites, concise descriptions, and an indication of when the courses are to be offered as to semesters and day/evening/weekend. Copy and paste the current catalog copy and use the Microsoft Word “track changes” feature (or use red text with “~~striketrough~~” formatting for text to be deleted, and adding blue text with “underline” formatting for text to be added).

Geography

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The Geography curriculum is oriented toward the concepts and methodologies of social science that stress the importance of location. Geography is the study of spatial variation – of how things vary from place to place on the surface of the earth; how places are connected to each other, and the factors that shape how places interact and change over time.

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Geography is studied at many levels, from the local to the global, and from many perspectives (i.e. social, cultural, political, economic, and environmental). Conceptual treatment of geographic issues deal with urbanization; globalization; migration; sustainability; patterns of land use; transportation systems; the flow of goods, services and information; business location; planning for the natural and built environment; and human-environmental interaction in both urban and rural settings. Special emphasis is placed on how these factors shape our world, the places where we live and work, and the ways in which we interact. Geographic analysis involves information technology; mapping and statistical analysis; social area analysis; remote sensing and satellite imagery; and especially the use of Geographic Information Systems (GIS). A host of courses prepare students in both the concepts and methods of contemporary spatial analysis. The Department also leads the interdisciplinary minor in Urban Studies and Geography majors find careers in urban and regional planning, cartography, GIS applications and development, marketing research, transportation planning, real estate development and teaching. While a wide range of career options are available to undergraduate geography majors, graduate studies provide additional options. (See the UNC Charlotte Graduate Catalog regarding the M.A. in Geography program.)

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The Geography curriculum is oriented toward the methodologies of social science in which the importance of location is stressed. Traditional regional studies and conceptual courses that deal with land use patterns, transportation systems, industrial location, the distribution of retail activities, city planning, and urban systems are augmented by technique-oriented courses such as map design and compilation, computer mapping, analysis of satellite images, statistical methods, and geographic information systems (GIS). These courses prepare students in both the concepts and methods of contemporary spatial analysis.

Geography majors find careers open to them in urban and regional planning, cartography, GIS, marketing research, transportation planning, real estate development and teaching. While a wide range of career options are available to undergraduate geography majors, graduate studies provide additional options. (See the UNC Charlotte Graduate Catalog regarding the M.A. in Geography program.)

Bachelor of Arts in Geography

A major leading to a B.A. degree consists of 40 hours in Geography and Earth Sciences coursework. A major leading to a B.A. degree consists of 36 hours in geography and earth sciences.

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Required Core Courses (21 hours)

- GEOG 1101 World Regional Geography (3)
- GEOG 1103 Spatial Thinking (4)
- GEOG 1105 Location of Human Activity (3)
- GEOG 1110 Introduction to Planning (3)
- GEOG 2110 Introduction to Geographic Research (3)
- ESCI 1101 Earth Science-Geography (3)
- ESCI 1101L Earth Science-Geography Lab (1)
- GEOG 4600 Professional Seminar (1)
- Required Courses (17 hours)

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- GEOG 1101 World Regional Geography (3)
- GEOG 1105 Location of Human Activity (3)
- GEOG 2103 Elements of GIScience and Technologies (4)
- GEOG 2110 Introduction to Geographic Research (3)
- ESCI 1101 Earth Science-Geography (3)
- ESCI 1101L Earth Science-Geography Lab (1)

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Elective Courses (19 hours)

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Except for required courses, the B.A. degree requires 19 hours of elective coursework numbered 2000 or above, with at least six hours in coursework at the 4000-level. Up to three elective courses may be selected from courses with the ESCI, GEOL, and METR prefix. Students are encouraged to take additional coursework in related disciplines or to select a second major. Consult the Department of Geography and Earth Sciences for a suggested schedule to complete the B.A. degree with a major in Geography.

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Bachelor of Science in Geography

A major leading to a B.S. degree consists of 49.5 hours of Geography and Earth Sciences and at least six hours of extra departmental coursework (51 hours total). In addition, to departmental core coursework students must complete ENGL 2116 (Introduction to Technical Communication) and a mathematics course above MATH 1103 with STAT 1221 or STAT 1222 strongly suggested. Although students pursuing a B.S. in Geography are not required to declare a concentration, formal concentrations within the major include Urban, Social and Economic Geography, Urban and Regional Planning, and GIScience and Technology. Other plans of study may be developed; students should contact their advisors to develop a program of study that matches their career objectives. In addition to the required 31 hours of core coursework all students except those pursuing the GIScience & Technology Concentration (see below) are required to complete 18 hours of elective GEOG coursework at the 3000 or above level. Up to three elective courses may be selected from courses with the ESCI, GEOL, and METR prefix. Students should work closely with their academic advisors to ensure that their program of study is tailored to their career goals.

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Degree Requirements Bachelor of Science in Geography

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A major leading to a B.S. degree consists of 44 hours of geography and earth sciences. In addition, students must complete ENGL 2116 (Introduction to Technical Communication) as well as General Education English requirements, and a mathematics course above MATH 1103 or STAT 122X. Although not required, concentrations options within the major include Urban, Social and Economic Geography, Urban Community and Regional Planning, and GIScience and Technology. Other concentrations may be developed; students should contact their advisors about these and other possible concentrations. Except for required courses, all work offered for the major must be in courses numbered 2000 or above. Consult the Department of Geography and Earth Sciences for a suggested schedule to complete the B.S. degree with a major in Geography.

Degree Requirements

Required Core Courses (31-25 Departmental hours)

- GEOG 1101 World Regional Geography (3)
- GEOG 1103 Spatial Thinking (4)
- GEOG 1105 Location of Human Activity (3)
- GEOG 1110 Introduction to Planning (3)
- GEOG 2110 Introduction to Geographic Research (3)
- GEOG 3120 Fundamentals of Geographic Information Systems (4)
- GEOG 4600 Professional Development Seminar (1)
- ESCI 1101 Earth Science-Geography (3)
- ESCI 1101L Earth Science-Geography Lab (1)

Required Extra Departmental Core Required Coursework (6 hours)

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- MATH or STAT course above MATH 1103 (3)
- ENGL 2116 Introduction to Technical Communication (3)

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Concentration in Urban, Social and Economic (USE) Geography (14 hours)

From the local to the global, patterns of urban growth and development connect people to each other, their communities, and their work at every scale of life. Accordingly, this concentration emphasizes how cities grow, how urban populations change, how urban areas interact with one another as well as the implications of these transitions and interactions at the local, regional and international levels. Coursework is tailored to student interest and typically involves foundational courses in urban, social and economic dynamics; population, migration and labor studies; poverty, inequality and housing; transportation and locational analysis; global and globalizing cities and the impacts of globalization at all geographic scales. Through classroom and research-based activities, students become grounded in the theory and methods of applied geographical analysis in an increasingly interdependent world that (1) informs stakeholders and the general public; (2) prepares them for careers in the public and private sectors with consultancies, non-profit agencies, international business, think tanks, transnational organizations, while; (3) preparing them for further academic study. Specific course work for this concentration in urban, social and economic geography is developed in consultation with the student's advisor.

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Concentration in Urban & Regional Planning Concentration (14 hours)

Planners solve social and environmental problems in the built environment by translating knowledge into action. Planners work across cultural and disciplinary boundaries to create healthy, just, and sustainable communities. Therefore, the Urban and Regional Planning concentration supplies students with a trans-disciplinary perspective on major societal issues. Specific areas of instruction include land use, transportation and infrastructure, social justice, urban design, environmental preservation, and analytical methods. Knowledge, skills, and methods gained from the Urban and Regional Planning concentration afford students with opportunities for successful careers in public, private, and non-profit organizations. The concentration also prepares students for graduate studies in planning, geography, policy studies, and associated fields. Those in the Urban & Regional Planning concentration should select their courses in consultation with their advisor.

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Concentration in GIScience and Technology Concentration (14 hours)

The GIScience and Technology concentration focuses on the acquisition, representation, analysis, modeling and dissemination of geospatial information with cutting-edge computer technologies. Emphasis is placed on both fundamentals of GIScience concepts, and building expert knowledge in the use of geospatial technologies such as GIS, remote sensing, spatial analysis and modeling, database development and management, programming, Web GIS and geovisualization. Students benefit from systematic training through technical and applied GIS coursework taught by GIScience faculty. Graduates with a GIScience and Technology concentration will find themselves well prepared to start a career in a geographic information technology field. Career opportunities have been growing fast as GIScience in high demand in a wide range of professions, including GIS analysts, GIS developers, cartographers, urban and city planners, location analysts, transportation planners and natural resource specialists. Strong connections between the Department and local and state agencies offer excellent opportunities to help students achieve their career goals. Students pursuing the Concentration in GIScience and Technology are urged to select their courses in consultation with their advisor ~~consult frequently with their academic advisors to develop an appropriate~~ program of study in this rapidly evolving field.

Additional Required Coursework for the GIScience and Technology Concentration

- GEOG 2100 Introduction to Cartographic Design (4)

And select at least two courses from the GIS techniques list and one or more from the GIS Applications list below:

GIS Techniques

- GEOG 4103 Computer Programming for GIS Applications (3)
- GEOG 4180 Web GIS (3)
- GEOG 4150 Spatial Database Development with GPS and GIS (4)
- ESCI 4180 Digital Image Processing in Remote Sensing (4)

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GIS Applications

- GEOG 3260. Medical Geography. (3)
- GEOG 4131 Environmental Modeling with GIS (4)
- GEOG 4132 GIS Spatial Modeling for Social and Economical Applications (4)
- GEOG 4140 Geographic Information Techniques for Community Planning (4)
- GEOG 4155 Retail Location (3)
- ESCI 4170 Fundamentals of Remote Sensing (4)
- GEOG 4265. Transportation Analysis Methods. (3)

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Students in the GIScience and Technology Concentration are required to take at least 13 hours of additional GIS related coursework from the courses listed above and an additional 5 hours in elective departmental coursework at the 3000 or above level (total 18 hours). Students should work closely with their academic advisors to ensure that their program of study is tailored to their career goals.

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Required Courses (21 hours)

- GEOG 1101 World Regional Geography (3)
- GEOG 1105 Location of Human Activity (3)
- GEOG 2103 Elements of GIScience and Technologies (4)
- GEOG 2110 Introduction to Geographic Research (3)
- GEOG 4120 Fundamentals of Geographic Information Systems (4)
- ESCI 1101 Earth Science Geography (3)
- ESCI 1101L Earth Science Geography Lab (1)

Community & Regional Planning Option

Select 5 courses:

- GEOG 3200 Land Use Planning (3)
- GEOG 3205 Internal Structure of the City (3)
- GEOG 3210 Regional Planning (3)
- GEOG 3215 Environmental Planning (3)
- GEOG 4210 Urban Planning Methods (3)

Economic Geography Option

Select 5 courses:

- GEOG 3000 Topics in Regional Geography (3)
- GEOG 3105 Geography of Global Economy (3)
- GEOG 3150 Manufacturing Geography (3)
- GEOG 3205 Internal Structure of the City (3)

- GEOG 3605 Geography of Europe (W) (3)
- GEOG 4000 Selected Topics in Geography (3)
- GEOG 4108 Sport, Place & Development (3)
- GEOG 4155 Retail Location (3)
- GEOG 4160 Geography of Transportation Systems (3)
- GEOG 4255 Applied Population Analysis (3)

Option-Related Electives to Complete B.S. Degree May Be Selected From:

- GEOG 3100 The City and Its Region (3)
- GEOG 3115 Urban Transportation Problems (3)
- GEOG 3205 Internal Structure of the City (3)
- GEOG 3265 Behavioral Geography (3)
- GEOG 4103 Computer Programming for GIS Applications (3)
- GEOG 4130 Advanced GIS (4)
- GEOG 4155 Retail Geography (3)
- GEOG 4209 Small Town Planning (3)
- GEOG 4255 Applied Population Analysis (3)
- GEOG 4400 Internship in Geography (3-6)

Geographic Information Systems Option

Select 5 courses:

- GEOG 4101 Cartographic Techniques (3)
- GEOG 4102 Cartographic Design & Map Construction (3)
- GEOG 4103 Computer Programming for Geographic Information Systems Applications (3)*
- GEOG 4120 Fundamentals of Geographic Information Systems (5)
- GEOG 4130 Advanced Geographic Information Systems (4)*
- ESCI 4170 Fundamentals of Remote Sensing (4)
- ESCI 4180 Digital Image Processing in Remote Sensing (4)

*Required

Note: It is recommended that students supplement these courses with computer programming and database courses such as ITCS 1214 and ITCS 3160.

GEOG 1103. Spatial Thinking. (4) This course is intended to provide students with an overview of spatial thinking fundamentals and how geospatial technology can be used to illustrate these notions. Spatial thinking combines (1) concepts of space, (2) tools of representation, and (3) processes of reasoning, to better structure spatially-explicit phenomena, and generate hypothesis to understand and explain those issues. This course will emphasize various aspects of spatial thinking as a way of addressing spatially explicit phenomena applied to an array of disciplines. (Fall, Spring, Summer)

- a. For a new course or revisions to an existing course, check all the statements that apply:
- ___ This course will be cross listed with another course.
 - ___ There are prerequisites for this course.
 - ___ There are corequisites for this course.
 - ___ This course is repeatable for credit.

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This course will increase/decrease the number of credits hours currently offered by its program.

This proposal results in the deletion of an existing course(s) from the degree program and/or catalog.

For all items checked above, applicable statements and content must be reflected in the proposed catalog copy.

GEOG 1110. Introduction to Urban and Regional Planning. (3) An overview of current and historical trends in Urban and Regional Planning. Examines how plans and planning have been used to resolve social, environmental, and economic conflicts. Specific topics include planning in industrial cities, land use planning, planning and social injustice, economic development, transportation planning, planning for global sustainability (*Fall*).

a. For a new course or revisions to an existing course, check all the statements that apply:

This course will be cross listed with another course.

There are prerequisites for this course.

There are corequisites for this course.

This course is repeatable for credit.

This course will increase/decrease the number of credits hours currently offered by its program.

This proposal results in the deletion of an existing course(s) from the degree program and/or catalog.

For all items checked above, applicable statements and content must be reflected in the proposed catalog copy.

GEOG 21002. Introduction to Cartographic Design. (4) A study of cartography and its essential processes, with particular emphasis on the map as a communication system, the effective communication of data by means of graphical symbols, map interpretation and geovisualization, and thematic map design and ~~discussion of map production techniques.~~ This course replaces GEOG 2100 and GEOG 2101 (Fall, Spring).

a. For a new course or revisions to an existing course, check all the statements that apply:

This course will be cross listed with another course.

There are prerequisites for this course.

There are corequisites for this course.

This course is repeatable for credit.

This course will increase/decrease the number of credits hours currently offered by its program.

This proposal results in the deletion of an existing course(s) from the degree program and/or catalog.

For all items checked above, applicable statements and content must be reflected in the proposed catalog copy.

GEOG 3120. Fundamentals of Geographic Information Systems. (4) Prerequisites: GEOG 1103 and GEOG 2110, or permission of instructor. Development, current state-of-the-art and future trends in geographic information processing with emphasis on data gathering, storage, and retrieval, analytical capabilities and display technologies. A

laboratory component will include development and completion of an applied GIS research project. Three lecture hours, one two-hour lab per week. (*Fall, Spring*)

a. For a new course or revisions to an existing course, check all the statements that apply:

- This course will be cross listed with another course.
- There are prerequisites for this course.
- There are corequisites for this course.
- This course is repeatable for credit.
- This course will increase/decrease the number of credits hours currently offered by its program.
- This proposal results in the deletion of an existing course(s) from the degree program and/or catalog.

For all items checked above, applicable statements and content must be reflected in the proposed catalog copy.

GEOG 4180. Web GIS. (3) Prerequisite: GEOG 3120. Introduction to the basic knowledge of, and advances in, Internet/Web GIS. Emphasis on the principles, methods, and applications of Web- or Internet-based GIS coupled with hands-on laboratory exercises for conducting GIS data operations, query, mapping, and spatial analysis/modeling via the Internet. (*Spring*)

a. For a new course or revisions to an existing course, check all the statements that apply:

- This course will be cross listed with another course.
- There are prerequisites for this course.
- There are corequisites for this course.
- This course is repeatable for credit.
- This course will increase/decrease the number of credits hours currently offered by its program.
- This proposal results in the deletion of an existing course(s) from the degree program and/or catalog.

For all items checked above, applicable statements and content must be reflected in the proposed catalog copy.

GEOG 4600. Geography Professional Seminar. (1) Prerequisite: GEOG 2110 and senior status. Examination of opportunities and key issues involved in the transition from the undergraduate degree program to professional life or continued formal education at the graduate level. Design and/or completion of essential documents to facilitate the transition including resume, professional portfolio, graduate program applications, exit survey, and assessment examination. (*Spring*)

b. For a new course or revisions to an existing course, check all the statements that apply:

- This course will be cross listed with another course.
- There are prerequisites for this course.
- There are corequisites for this course.
- This course is repeatable for credit.
- This course will increase/decrease the number of credits hours currently offered by its program.
- This proposal results in the deletion of an existing course(s) from the degree program and/or catalog.

For all items checked above, applicable statements and content must be reflected in the proposed catalog copy.

- c. If overall proposal is for a new degree program that requires approval from General Administration, please contact the facultygovernance@uncc.edu for consultation on catalog copy.

4. ACADEMIC PLAN OF STUDY (UNDERGRADUATE ONLY): Does the proposed change impact an existing Academic Plan of Study?

- Yes. If yes, please provide updated Academic Plan of Study in template format.
 No.

5. STUDENT LEARNING OUTCOMES (UNDERGRADUATE & GRADUATE): Does this course or curricular change require a change in Student Learning Outcomes (SLOs) or assessment for the degree program?

- Yes. If yes, please provide updated SLOs in template format.
 No.

6. TEXTBOOK COSTS: It is the policy of the Board of Governors to reduce textbook costs for students whenever possible. Have electronic textbooks, textbook rentals, or the buyback program been considered and adopted?

- Yes. Briefly explain below.
 No. Briefly explain below.

Electronic texts, text book rentals and buyback programs are typically considered for courses that require a textbook. When available, they are used. Unfortunately, not all textbooks, especially for specialized courses, are available in these formats or rental buyback programs.



B.A. in Geography Academic Plan of Study

*College of Liberal Arts & Sciences
Department of Geography & Earth Sciences
geoeath.uncc.edu*

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PROGRAM SUMMARY

- **Credit Hours:** 120 hours
- **Concentrations:** No
- **Declaring the Major:** Minimum GPA of 2.0 preferred. Major can be declared on a rolling basis throughout the year. Students may declare the major at any time before graduation.
- **Advising (For the Major):** Each major is assigned an advisor from within the department. Majors will meet with this advisor before each subsequent semester to define the most advantageous course schedule for the student. An advising hold will be in place until the student completes their advising meeting, at which time it will be removed for registration.
- **Advising (For General Education):** General Education course advising can be done within the department by your major advisor.
- **Minimum Grades/GPA:** minimum GPA is 2.0
- **Teacher Licensure:** Yes. Comprehensive Social Studies Licensure is available with the BA in Geography, along with cognate coursework in history and political science. Licensure applications are the responsibility of the student and the Office of Student Academic Services in the College of Education.
- **Evening Classes Available:** Yes. Elective courses are available in evening, but the major cannot be completed at night.
- **Weekend Classes Available:** No
- **Other Information:** Internships available: Gamma Theta Upsilon (an international geography honor society), Geography Club, Student Chapter of American Society of Photogrammetry and Remote Sensing (ASPRS).
- **Contact(s):** Ms. Jamie Strickland, undergraduate coordinator for GEOG

PROGRAM REQUIREMENTS

The Geography curriculum is oriented toward the methodologies of social science in which the importance of location is stressed. Traditional regional studies and conceptual courses that deal with land use patterns, transportation systems, site location, the distribution of retail activities, city planning, and urban systems are augmented by technique-oriented courses such as map design and compilation, computer mapping, analysis of satellite images, statistical methods, and geographic information systems (GIS). These courses prepare students in both the concepts and methods of contemporary spatial analysis. Ideally, students will take a progression of courses beginning with GEOG 1101 and GEOG 1105, the foundational courses. Students have flexibility in designing their program of study and *should consult with an advisor* to consider the most efficient options.

Pre-Major/ Prerequisites	-	
Major	40	Required courses in Geography (GEOG) and Earth Science (ESCI).
General Education (not satisfied by other major requirements)	30	Hours do not include those requirements which are satisfied within the major. BA GEOG majors may use GEOG 1105 to satisfy Social Science requirement of General Education and ESCI 1101 to satisfy the Science with lab requirement of General Education. Transfer students with an associate's degree are exempt from most General Education, but must complete Writing Intensive requirement.
Related Work	19	May be satisfied by a second major, a minor, or a set of coordinated courses developed through consultation with an advisor.
Foreign Language	0-8	Foreign language: Proficiency at the introductory level (1202) by coursework, placement test, or high school coursework.
Electives	23-31	As needed to complete 120 hours total.
Total Credit Hours	120	

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SUGGESTED PLAN OF STUDY – B.A. IN GEOGRAPHY

Course Number	Course Title	Credit Hours	General Education	W-D Course	Notes
<i>Fall Semester</i>					
GEOG 1101	World Regional Geography	3			
GEOG 1105	Location of Human Activity	3	X		Fulfills General Ed. Social Sci. Requirement
LBST 1101-L	Basic Science (Seminar) plus laboratory	4	X		Fulfills General Ed. Natural Sci. Requirement
LBST 110X	Arts and Society	3	X		
ENGL 1101	English Composition	3	X		
<i>Spring Semester</i>					
GEOG 1165	Spatial Thinking	4	X		
XXXX XXXX	Scans Electives (6)	6	X		
LBST 2101	Western Culture and History	3	X		
ENGL 1102	Academic Writing	3	X		
MATH 110X	Mathematics course	3	X		

32 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W-D Course	Notes
<i>Fall Semester</i>					
GEOG 2110	Introduction to Urban & Regional Planning	3			
GEOG 2110	Introduction to Geographic Research	3			
LBST 2102	Global and International Connections	3	X		
MATHSTAT	MATH/STAT above 1103	3	X		
XXXX 2101	FOBL 1201 Foreign Language (at proficiency)	4			CLAS requirement
<i>Spring Semester</i>					
XXXX XXXX	Writing Intensive Course	3	X	W	
GEOG XXXX	GEOG elective	3			
LBST 220X	Ethics and Cultural Critique	3	X		
XXXX 2101	FOBL 1202 Foreign Language (at proficiency)	4			CLAS requirement

22 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W-D Course	Notes
<i>Fall Semester</i>					
GEOG XXXX	GEOG elective	3			
GEOG XXXX	GEOG elective at 4000-level	3			
XXXX XXXX	General electives or minor coursework	9			
<i>Spring Semester</i>					
GEOG 2165	Patterns of World Urbanization	3	X	Q	
GEOG XXXX	GEOG elective W requirement	3	X	W	
XXXX XXXX	General electives or minor coursework	9			

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W-D Course	Notes
<i>Fall Semester</i>					
GEOG XXXX	GEOG elective	6			
XXXX XXXX	General electives or minor coursework	11			
<i>Spring Semester</i>					
GEOG 4620	Professional Development Seminar	1			
XXXX XXXX	General electives or minor coursework	12			

29 Credit Hours for Year

ADVISING RESOURCES

- General Education Requirements for ALL Students: ucol.uncc.edu/general-education
- Undergraduate Catalog: catalog.uncc.edu
- Central Advising website: advising.uncc.edu
- College of Liberal Arts & Sciences advising website: clas.uncc.edu/students/Advising-News/
- University Advising Center website: advisingcenter.uncc.edu

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B.S. in Geography
Academic Plan of Study
College of Liberal Arts & Sciences
Department of Geography & Earth Sciences
geoearth.uncc.edu

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PROGRAM SUMMARY

- **Credit Hours:** 120 hours
- **Concentrations:** Urban & Regional Planning, Urban, Social & Economic Geography, Geographic Information Science & Technology (GISc&T)
- **Declaring the Major:** Minimum GPA of 2.0 preferred. Major can be declared on a rolling basis throughout the year.
- **Advising (For the Major):** Each major is assigned an advisor from within the department. Majors will meet with this advisor before each subsequent semester to define the most advantageous course schedule for the student. An advising hold will be in place until the student completes their advising meeting, at which time it will be removed for registration.
- **Advising (For General Education):** General Education course advising can be done within the department by your major advisor.
- **Minimum Grades/GPA:** minimum GPA is 2.0
- **Teacher Licensure:** No. Social Studies licensure is available through the B.A. in Geography.
- **Evening Classes Available:** Yes. Elective courses are available in evening, but the major cannot be completed at night.
- **Weekend Classes Available:** No
- **Other Information:** Internships available; Gamma Theta Upsilon (an international geography honor society), Geography Club, Student Chapter of American Society of Photogrammetry and Remote Sensing (ASPRS).
- **Contact(s):** Ms. Jamie Strickland, undergraduate coordinator for GEOG, jstrickl@uncc.edu;

PROGRAM REQUIREMENTS

The Geography curriculum is oriented toward the concepts and methodologies of social science that stress the importance of location. Geography is the study of spatial variation – of how things vary from place to place on the surface of the earth; how places are connected to each other, and the factors that shape how places interact and change over time.

Geography is studied at many levels, from the local to the global, and from many perspectives (i.e. social, cultural, political, economic, and environmental). Conceptual treatment of geographic issues deal with urbanization; globalization; migration; sustainability; patterns of land use; transportation systems; the flow of goods, services and information; business location; planning for the natural and built environment; and human-environmental interaction in both urban and rural settings. Special emphasis is placed on how these factors shape our world, the places where we live and work, and the ways in which we interact. Geographic analysis involves information technology; mapping and statistical analysis; social area analysis; remote sensing and satellite imagery; and especially the use of Geographic Information Systems (GIS). A host of courses prepare students in both the concepts and methods of contemporary spatial analysis. The Department also leads the interdisciplinary minor in Urban Studies and Geography majors find careers in urban and regional planning, cartography, GIS applications and development, marketing research, transportation planning, real estate development and teaching. While a wide range of career options are available to undergraduate geography majors, graduate studies provide additional options. (See the UNC Charlotte Graduate Catalog regarding the M.A. in Geography program.)

Formal concentrations within the major include Urban, Social and Economic Geography, Urban and Regional Planning, and GIScience and Technology. Other plans of study may be developed; students should contact their advisors to develop a program of study that matches their career objectives. In addition to the required 31 hours of core coursework all students except those pursuing the GIScience & Technology Concentration (see below) are required to complete 18 hours of elective GEOG coursework at the 3000 or above level. Up to three elective courses may be selected from courses with the ESCI, GEOL, and MIETR prefix. Students should work closely with their academic advisors to ensure that their program of study is tailored to their career goals.

Major	49	Required courses in Geography (GEOG) and Earth Science (ESCI)
General Education (not satisfied by other major requirements)	30	Hours do not include those requirements which are satisfied within the major. BS GEOG majors may use GEOG 1105 to satisfy Social Science requirement of General Education and ESCI 1101 to satisfy the Science with lab requirement of General Education. Transfer students with an

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		associate's degree are exempt from most General Education, but must complete Writing Intensive requirement.
Related Work	6	Specific requirements include ENGL 2116 and a MATH above 1103.
Foreign Language	0-8	Foreign language: Proficiency at the introductory level (1202) by coursework, placement test, or high school coursework.
Electives	27-33	May be satisfied by a second major, a minor, or a set of coordinated courses developed through consultation with an advisor. As needed to complete 120 hours total.
Total Credit Hours	120	

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SUGGESTED PLAN OF STUDY – B.S. IN GEOGRAPHY

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
GEOG 1101	World Regional Geography	3			
ESCI 1101	Earth Science-Geography plus Laboratory	4	X		Fulfills General Edn. Natural Sci. Requirement
GEOG 1104	Locations of Human Activity	3	X		Fulfills General Edn. Social Sci. Requirement
LBST 110X	Arts and Society	3	X		
ENGL 1101	English Composition	3	X		
Spring Semester					
GEOG 1103	Spatial Thinking	4			
XXXX XXXX	Natural Science without lab	3	X		
LBST 2101	Western Cultural and Historical Awareness	3	X		
ENGL 3102	Academic Writing	3	X		
MATH 110X	Mathematics course	3	X		

21 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
GEOG 1101	Introduction to Urban and Regional Planning	3			
GEOG 2110	Introduction to Geographic Research	3			
LBST 2101	Global and International Connections	3	X		
MATH/STAT	MATH/STAT above 1103 (e.g. STAT 1220 or 1222)	3	X		Fulfills Mathematics Requirement
XXXX 1201	FORE 1201 Foreign Language for proficiency	4			CLAS requirement
Spring Semester					
ENSC 2116	Introduction to Technical Communication	3	X	W	
GEOG 3120	Paradigms of Geographic Information Systems	4			GEOG 1103 and GEOG 2110 are pre-requisites
LBST 211X	Ethics and Cultural Critique	3	X		
XXXX 1201	FORE 1201 Foreign Language for proficiency	4			CLAS requirement

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
GEOG XXXX	GEOG electives	7			
GEOG XXXX	GEOG electives W requirement	3	X	W	
XXXX XXXX	General electives or minor coursework	9			
Spring Semester					
GEOG 2165	Patterns of World Urbanization	3	X	O	
GEOG XXXX	GEOG electives	3			
XXXX XXXX	General electives or minor coursework	9			

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
GEOG XXXX	GEOG electives	3			
XXXX XXXX	General electives or minor coursework	9			
Spring Semester					
GEOG 4601	Professional Development Seminar	3			
XXXX XXXX	General electives or minor coursework	12			

28 Credit Hours for Year

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SUGGESTED PLAN OF STUDY – B.S. IN GEOGRAPHY, URBAN & REGIONAL PLANNING

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG 1101	World Regional Geography	3			
ESCI 1104	Earth Science-Geography, plus Laboratory	4	X		Fulfills General Edn. Natural Sci. Requirement
GEOG 1104	Geography of Human Activity	3	X		Fulfills General Edn. Social Sci. Requirement
LBST 1105	Arts and Society	3	X		
ENSC 4101	Finalist Concentration	3	X		
<i>Spring Semester</i>					
GEOG 1103	Spatial Thinking	3			
XXXX XXXX	Natural Science without lab	3	X		
LBST 2101	Western Cultural and Historical Awareness	3	X		
ENGL 1102	Academic Writing	3	X		
MATH 110X	Mathematics course	3	X		

22 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG 1110	Introduction to Urban and Regional Planning	2			
GEOG 2110	Introduction to Geographic Research	2	X		
LBST 2102	Civil and Intercultural Connections	3	X		
MATH/STAT	MATH/STAT above 1101 (e.g. STAT 1220 or 1242)	3	X		Fulfills Mathematics Requirement
XXXX 1201	FORL 1201 Foreign Language (for proficiency)	4			CLAS requirement
<i>Spring Semester</i>					
ENGL 2110	Introduction to Technical Communication	3	X	W	
GEOG 3120	Fundamentals of Geographic Information Systems	4			GEOG 1103 and GEOG 2110 are prerequisites
LBST 221X	Ethics and Cultural Change	3	X		
XXXX 1202	FORL 1202 Foreign Language (for proficiency)	4			CLAS requirement

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG XXXX	GEOG planning elective w/ requirement	3	X	W	GEOG 1114 or 3214
GEOG XXXX	GEOG planning elective	3			e.g. GEOG 3200, 3205, 3210, 3209, 3210
XXXX XXXX	General electives of minor coursework	9			
<i>Spring Semester</i>					
GEOG 4105	Patterns of World Urbanization	3	X	U	
GEOG XXXX	GEOG planning elective	3			
XXXX XXXX	General electives of minor coursework	7			

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG XXXX	GEOG planning elective	0			e.g. GEOG 3200, 3205, 3210, 3209, 3210
XXXX XXXX	General electives of minor coursework	9			
<i>Spring Semester</i>					
GEOG 4000	Professional Development Seminar	1			
XXXX XXXX	General electives of minor coursework	17			

28 Credit Hours for Year

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SUGGESTED PLAN OF STUDY – B.S. IN GEOGRAPHY, URBAN, SOCIAL AND ECONOMIC (USE)

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG 1101	World Regional Geography	3			
ESCI 1101	Earth Science-Geography plus Laboratory	4	X		Fulfills General Edn. Natural Sci. Requirement
GEOG 1102	Location of Human Activity	2	X		Fulfills General Edn. Social Sci. Requirement
LBST 110X	Arts and Society	2	X		
ENGL 1101	English Composition	2	X		
<i>Spring Semester</i>					
GEOG 1103	Spatial Thinking	4			
XXXX XXXX	Natural Science outdoor lab	1	X		
LBST 2101	Western Cultural and Historical Awareness	2	X		
ENGL 1102	Academic Writing	2	X		
MATH 110X	Mathematics course	3	X		

32 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG 1110	Introduction to Urban and Regional Planning	3			
GEOG 2110	Introduction to Geographic Research	2			
LBST 2102	Global and Intercultural Connections	2	X		
MATH/STAT	MATH/STAT above 1103 or e. STAT 1220 or 1222	2	X		Fulfills Mathematics Requirement
XXXX 1201	FDRL 1201 Foreign Language (for proficiency)	4			CLAS requirement
<i>Spring Semester</i>					
ENGL 2110	Introduction to Technical Communication	2	X	W	
GEOG 3120	Fundamentals of Geographic Information Systems	4			GEOG 1103 and GEOG 2110 are pre-requisites
LBST 221X	Ethics and Cultural Critique	2	X		
XXXX 1201	FDRL 1201 Foreign Language (for proficiency)	4			CLAS requirement

30 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG XXXX	GEOG USE elective	3			See advisor for course listing
GEOG XXXX	GEOG USE elective	3			See advisor for course listing
XXXX XXXX	General elective or minor coursework	9			
<i>Spring Semester</i>					
GEOG 2105	Patterns of World Urbanization	2	X	O	
GEOG 4108	Short, Place & Development	2	X	W	GEOG 1103 is pre-requisite
XXXX XXXX	General elective or minor coursework	9			

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
GEOG XXXX	GEOG USE elective	6			See advisor for course listing
XXXX XXXX	General elective or minor coursework	9			
<i>Spring Semester</i>					
GEOG 4000	Professional Development Seminar	1			
XXXX XXXX	General elective or minor coursework	12			

28 Credit Hours for Year

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SUGGESTED PLAN OF STUDY – B.S. IN GEOGRAPHY, GISCIENCE AND TECHNOLOGY (GIS&T)

Course Number	Course Title	Credit Hours	General Education	W/Q Course	Notes
<i>Fall Semester</i>					
GEOG 1101	World Regional Geography	3			
ESCI 1101	Earth Science-Geography plus Laboratory	4	X		Fulfills General Edn. Natural Sci. Requirement
GEOG 1105	Location of Human Activity	3	X		Fulfills General Edn. Social Sci. Requirement
LBST 110X	Arts and Society	3	X		
ENGL 1101	English Composition	3	X		
<i>Spring Semester</i>					
GEOG 1105	Spatial Thinking	4			
XXXX XXXX	Natural Science minor/lab	3	X		
LBST 2101	Western Cultural and Historical Awareness	3	X		
ENGL 1102	Academic Writing	3	X		
MATH 110X	Mathematics course	3	X		

12 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/Q Course	Notes
<i>Fall Semester</i>					
GEOG 2110	Introduction to Urban and Regional Planning	3			
GEOG 2110	Introduction to Geographic Research	3			
LBST 2102	Global and Intercultural Connections	3	X		
MATH/STAT	MATH/STAT above 1103 (e.g. STAT 1120 or 1222)	3	X		Fulfills Mathematics Requirement
XXXX 1201	FOSE 1201 Foreign Language (to proficiency)	3			CLAS requirement
<i>Spring Semester</i>					
ENGL 2116	Introduction to Technical Communication	3	X	W	
GEOG 3110	Fundamentals of Geographic Information Systems	3			GEOG 1103 and GEOG 2110 are pre-requisites
LBST 211X	Ethics and Cultural Change	3	X		
XXXX 1202	FOSE 1202 Foreign Language (to proficiency)	3			CLAS requirement

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/Q Course	Notes
<i>Fall Semester</i>					
GEOG 2100	Introduction to Cartographic Design	4			
GEOG/ESCI XXXX	GIS&T Techniques Elective	2			See adviser for course listing
XXXX XXXX	General electives or minor coursework	8			
<i>Spring Semester</i>					
GEOG 2105	Patterns of World Urbanization	3	X	Q	
GEOG/ESCI XXXX	GIS&T Techniques or Applications Elective	3	X	W	See adviser for course listing
XXXX XXXX	General electives or minor coursework	8			

20 Credit Hours for Year

Course Number	Course Title	Credit Hours	General Education	W/Q Course	Notes
<i>Fall Semester</i>					
GEOG/ESCI XXXX	GIS&T Techniques or Applications Elective	3			See adviser for course listing
GEOG XXXX	GEOG elective writing intensive requirement	3	X	W	
XXXX XXXX	General electives or minor coursework	4			
<i>Spring Semester</i>					
GEOG 4660	Professional Development Seminar	1			
GEOG XXXX	GEOG elective	1			
XXXX XXXX	General electives or minor coursework	9			

19 Credit Hours for Year

ADVISING RESOURCES

- General Education Requirements for ALL Students: ucol.uncg.edu/general-education
- Undergraduate Catalog: catalog.uncg.edu

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- [Central Advising website: advising.uncc.edu](http://advising.uncc.edu)
- [College of Liberal Arts & Sciences advising website: clas.uncc.edu/students/Advising-News/](http://clas.uncc.edu/students/Advising-News/)
- [University Advising Center website: advisingcenter.uncc.edu](http://advisingcenter.uncc.edu)

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IMPORTANT NOTE: A Microsoft Word version of the final course and curriculum proposal should be sent to facultygovernance@uncc.edu upon approval by the Undergraduate Course and Curriculum Committee and/or Graduate Council chair.

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UNC CHARLOTTE
College of Education

Department of Middle, Secondary and K-12 Education

9201 University City Blvd, Charlotte, NC 28223-0001

TO: Campbell, Harrison
FR: DiBiase, Warren
RE: Changes to Geography Curriculum

Dear Dr. Harrison:

MDSK has reviewed the Department of Geography & Earth Sciences proposal to make some curriculum changes to its Geography BA and BS degrees. The Department gives its full support to the proposal.

Please let me know if you have any questions or need additional information.

Middle Grades Education • Secondary Education • Teaching English as a Second Language
Foreign Languages Education • Arts Education • Ph.D. in Curriculum and Instruction

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