UNIVERSITY CURRICULUM COMMITTEE – 2012-2013
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Undergraduate Student Representative
Graduate Student Representative

Dear Colleagues:

The attached proposal for the following new Areas of Emphasis under the majors in Geography (A.B. and B.S.) will be an agenda item for the August 22, 2012, Full University Curriculum Committee meeting:

Area of Emphasis in Urban and Community Studies (for A.B. and B.S.)
Area of Emphasis in Environmental Geography (for A.B. and B.S.)
Area of Emphasis in Global Environmental Change (for A.B. and B.S.)
Area of Emphasis in Agro-Food Systems and Food Security (for A.B. only)
Area of Emphasis in Globalization, Politics, and Economy (for A.B. only)
Area of Emphasis in Earth System Sciences (for B.S. only)
Area of Emphasis in Geospatial Analysis and Visualization (for B.S. only)
Area of Emphasis in Remote Sensing and Photogrammetry (for B.S. only)

Sincerely,

[Signature]
Davie L. Shipley, Chair
University Curriculum Committee

cc: Provost Jere W. Morehead
Dr. Laura D. Jolly

Executive Committee, Benefits Committee, Committee on Facilities, Committee on Intercollegiate Athletics, Committee on Statutes, Bylaws, and Committees, Committee on Student Affairs, Curriculum Committee, Educational Affairs Committee, Faculty Admissions Committee, Faculty Affairs Committee, Faculty Grievance Committee, Faculty Post-Tenure Review Appeals Committee, Faculty/Staff Parking Appeals Committee, Strategic Planning Committee, University Libraries Committee, University Promotion and Tenure Appeals Committee

An Equal Opportunity/Affirmative Action Institution
19 April 2012

Dr. Hugh Ruppersberg
Inerim Dean, Franklin College
Old College Building
UGA Campus Mail

Dear Hugh,

The faculty of the Department of Geography compiled a proposal for eight separate “Areas of Emphasis” amongst the A.B. and B.S majors in Geography, which was approved by the Geography Curriculum Committee as well as by unanimous vote of the full Geography Faculty. We believe that these will be beneficial to our majors in helping them to focus their studies and ultimately be more successful on the job market. We understand that the next step is to seek approval by the College Curriculum Committee and you prior to sending it up to the University Curriculum Committee. Thus, we would appreciate it if the attached proposal could be submitted to the Franklin College Curriculum Committee for consideration.

Respectfully,

David S. Leigh
Professor and Associate Head
Urban and Community Studies (for AB or BS degree)

The Urban and Community Studies area of emphasis focuses on the economic, cultural and political factors shaping cities, as well as the experiences of living and building different kinds of communities in and near cities. This area of emphasis relates to careers in urban planning, metropolitan government, economic development, and the non-profit sector.

Pre-requisite:

GEOG 1103: Cultural Geography of the United States
- Use this course to satisfy either Area E\V (Social Studies) or Area F\VI (Major-Related Courses) general studies requirements

Upper division courses: You will take a total of 8 upper division courses in Geography

Cartography (1 course):

GEOG 3510/L: Cartography and Graphics

Core (3 courses):

GEOG 3630: Introduction to Urban Geography

Select 2 of the following courses:

GEOG 4630: Advanced Urban Geography (Heynen: Social Movements)
GEOG 4630: Advanced Urban Geography (Holloway: Inequality, Race & the City)
  note: GEOG 4630 may be repeated for up to 6 hours of credit.
GEOG 4660: Urban and Regional Development (currently not taught)

Electives (3 courses): Select 3 additional courses from the following categories:

Human Geography courses:

GEOG 3290: Mountain Geography
GEOG 3620: Introduction to Economic Geography
GEOG 3640: The Geography of Human Rights
GEOG 3660: Geography of Food Commodities
GEOG 3690: Introduction to Political Geography (under development)
GEOG 4160: Applied Climatology in the Urban Environment
GEOG 4620: Advanced Economic Geography
GEOG 4640: Population Geography (not currently taught)
GEOG 4680: Gender and Geography
GEOG 4690: Advanced Political Geography (under development)
GEOG 4890: Athens Urban Food Collective (AUFC) Service Learning

Applications/Extensions

GEOG 3990: Internship in Geography (with an urban/community focus)
GEOG 4370/L: Geographic Information Science
GEOG 4380/L: Transportation Modeling and GIS

Physical Geography (1 course): Select 1 3000- or 4000-level physical geography course.

Note: All Departmental, College and University requirements for the AB degree must be observed.
Environmental Geography (for AB or BS degree)

The Environmental Geography area of emphasis provides students with a well-rounded education of the earth's physical and biological systems and settings. It prepares students for careers related to environmental planning, environmental consulting, resource management, and various areas dealing with stewardship of public and private lands.

Pre-requisite: GEOG 1125 or GEOG 2250H

Upper division courses: You will take a total of 8 upper division courses in Geography

Cartography (1 course):
GEOG 3510/GEOG 3510L: Cartography and Graphics

Core (6 courses): Select 2 courses from each of the following areas:

Geomorphology
GEOG 3010: General Geomorphology
GEOG 4020: Fluvial Geomorphology
GEOG 4030: Geomorphology and Environmental Change in Karst and Arid Environments
GEOG 4040: Global Environmental Change during the Quaternary
GEOG 4060: Field and Laboratory Methods in Physical Geography
GEOG 4070: Field Study of Geomorphology
WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOL) 4700L: Hydrology, Geology, and Soils of Georgia

Climatology
GEOG 3110: Climatology
GEOG 3120/L: Weather Analysis and Forecasting
GEOG 3130: Atmospheric Hazards
GEOG 3180: (in prep) Global Climate Change
(GEOG)ENGR 4111/L: Thermodynamics
GEOG(ENGR) 4112: Atmospheric Dynamics
GEOG 4114: Atmospheric Dynamics II
GEOG 4120: Synoptic Meteorology/Climatology
GEOG 4140: Satellite Meteorology/Climatology
GEOG 4150: Physical Climatology
GEOG 4160: Applied Climatology in the Urban Environment
GEOG 4170/L: Mesoscale and Radar Meteorology / Climatology
(GEOG)ENGR 4161/L: Environmental Microclimatology
(GEOG)ENGR 4180: Special Topics in Atmospheric Science
GEOG 4911: Collaborative Research in Atmospheric Sciences

Biogeography
GEOG 3210: Biogeography
GEOG 3290: Mountain Geography
GEOG 4220: Ecological Biogeography
GEOG 4240: Plant Geography
GEOG 4261: Field Studies in Natural Resources
GEOG 4810: Conservation Ecology and Resource Management
GEOG 4930: Agroecology in Tropical America
GEOG 4931: Agroecology in Tropical America Field Trip

Human Geography (1 course)*: select 1 3000- or 4000-level human geography course

*an additional human geography course (total of 2) is needed in relation to the AB degree

Note: All Departmental, College and University requirements for the AB or BS degree must be observed.
Global Environmental Change (for AB or BS degree)

The Global Environmental Change area of emphasis focuses on dynamic elements of earth's systems that operate at continental to global scales and change on timescales of decades to millions of years. It prepares students for careers broadly related to global environmental change and associated aspects of resource management.

**Upper division courses:** You will take a total of 8 upper division courses in Geography.

**Cartography (1 course):**
GEOG 3510/GEOG 3510L: Cartography and Graphics

**Core (2 courses):**
- GEOG 3180 (in prep.): Global Climate Change
- GEOG 4040: Global Environmental Change during the Quaternary

**Electives (4 courses. Select one from each of the four categories):**

**Geomorphology**
- GEOG 3010: General Geomorphology
- GEOG 4020: Fluvial Geomorphology
- GEOG 4030: Geomorphology and Environmental Change in Karst and Arid Environments
- GEOG 4060: Field and Laboratory Methods in Physical Geography
- GEOG 4070: Field Study of Geomorphology
- WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOL) 4700L: Hydrology, Geology, and Soils of Georgia

**Climatology**
- GEOG 3110: Climatology
- GEOG 3120/L: Weather Analysis and Forecasting
- GEOG 3130: Atmospheric Hazards
- GEOG 4120: Synoptic Meteorology/Climatology
- GEOG 4150: Physical Climatology
- GEOG 4160: Applied Climatology in the Urban Environment

**Biogeography**
- GEOG 3210: Biogeography
- GEOG 3290: Mountain Geography
- GEOG 4220: Ecological Biogeography
- GEOG 4240: Plant Geography
- GEOG 4810: Conservation Ecology and Resource Management

**Remote Sensing**
- GEOG 4140: Satellite Meteorology/Climatology
- GEOG 4350/L: Remote Sensing of Environment (PR: 4330)

**Human Geography (1 course)**: select 1 3000- or 4000-level human geography course

*an additional human geography course (total of 2) is needed in relation to the AB degree

Note: All Departmental, College and University requirements for the AB & BS degree must be observed.
**Agro-Food Systems and Food Security (for AB degree only)**

The *Agro-Food Systems and Food Security* area of emphasis focuses on the structure and dynamics of the industrial agro-food system, as well as the many and varied critiques leveraged against that system. Emphasis is given to understanding the ways in which alternative food systems and networks seek to address the weaknesses of the industrial system. Themes include globalization, hunger and food insecurity, sustainable farming, local and regional food systems, food safety, food justice, and food sovereignty. This area of emphasis relates to careers in the rapidly growing alternative food networks sector, as well as shaping food policy at multiple levels of governance.

**Upper division courses:** You will take a total of 8 upper division courses in Geography

*Cartography* (1 course):

GEOG 3510/L: Cartography and Graphics

*Core* (choose 3 of the following courses):

GEOG 3660: Geography of Food Commodities  
GEOG 4670: Geography of Development  
GEOG 4860: The Industrial Food System and its Alternative  
GEOG 4890: Athens Urban Food Collective (AUFC) Service Learning

*Electives* (3 courses): Select 3 additional courses from the following categories:

**Human Geography**

GEOG 3290: Mountain Geography  
GEOG 3620: Introduction to Economic Geography  
GEOG 3630: Introduction to Urban Geography  
GEOG 3640: The Geography of Human Rights  
GEOG 3690: Introduction to Political Geography (under development)  
GEOG 4620: Advanced Economic Geography  
GEOG 4630: Advanced Urban Geography  
GEOG 4640: Population Geography (not currently taught)  
GEOG 4680: Gender and Geography  
GEOG 4690: Advanced Political Geography (under development)  
CRSS(HORT)(ANTH)(ECOL)(GEOG) 4930/6930: Agroecology of Tropical America

**Applications/Extensions**

GEOG 3990: Internship in Geography (with a food focus)  
GEOG 4375: GIS Applications in Agriculture (not currently taught)  
GEOG 4890: Athens Urban Food Collective (AUFC) Service Learning

*Physical Geography* (1 course): Select 1 3000- or 4000-level physical geography course.

*Note:* All Departmental, College and University requirements for the AB degree must be observed.
**Globalization, Politics & Economy (for AB degree only)**

The *Globalization, Politics & Economy* area of emphasis provides an understanding of the macro- and micro-economic factors and political relationships shaping the interdependent world system today. Political and economic perspectives of the core intersect with electives to frame more specific areas of human geography. This area of emphasis relates to careers in international business, the government sector (local to international levels), international development organizations, labor organizations, and the non-profit sector.

**Pre-requisite:**

- GEOG 1103: Cultural Geography of the United States
  - Use this course to satisfy either Area E\V (Social Studies) or Area F\VI (Major-Related Courses) general studies requirements

**Upper division courses:** You will take a total of 8 upper division courses in Geography

*Cartography* (1 course):

- GEOG 3510/GEOG 3510L: Cartography and Graphics

*Core* (3 courses): Select 3 of the following courses (courses not selected for the Area of emphasis Core can be used for the Area of emphasis Elective):

- GEOG 3620: Introduction to Economic Geography
- GEOG 3640: The Geography of Human Rights
- GEOG 3690: Introduction to Political Geography
- GEOG 4620: Advanced Economic Geography
- GEOG 4690: Advanced Political Geography

*Electives* (3 courses): Select 3 additional courses from the following categories:

**Human Geography**

- GEOG 3290: Mountain Geography
- GEOG 3630: Introduction to Urban Geography
- GEOG 3660: Geography of Food Commodities
- GEOG 4630: Advanced Urban Geography
- GEOG 4640: Population Geography (not currently taught)
- GEOG 4660: Urban and Regional Development (not currently taught)
- GEOG 4670: Geography of Development
- GEOG 4680: Gender and Geography
- GEOG 4720: Geography of Latin America
- GEOG 4860: The Industrial Food System and its Alternatives
- GEOG 4890: Athens Urban Food Collective (AUFC) Service Learning

**Applications/Extensions**

- GEOG(AFST) 3650: Africa in the Global Economy (not currently taught)
- GEOG 3990: Internship in Geography (with a globalization &/or human rights focus)
- GEOG 4710-4750: Regional Course

**Physical Geography** (1 course): Select 1 3000- or 4000-level physical geography course.

Note: All Departmental, College and University requirements for the AB degree must be observed.
Earth System Science (for BS degree only)

The *Earth System Science* area of emphasis incorporates an integrated systems approach which is more quantitative than the *Environmental Geography* area of emphasis. It involves digital analysis of earth and atmospheric systems through use of remote sensing and/or geographic information systems. Students are prepared for careers with scientific agencies and companies concerned with physical systems of the environment and resource management, particularly in situations that call for knowledge of computerized techniques.

**Pre-requisite:**

CSCI 1210: (Computer Modeling and Science) OR CSCI 1301/L: (Introduction to Computing and Programming).
- Use one of these courses to satisfy Area F (Major-Related Courses) BS general studies requirements
MARS 1010: The Marine Environment
- You may use this course to satisfy the lab science requirement (currently, MARS is not among the list of classes to satisfy this requirement).

**Upper division courses:** You will take a total of 8 upper division courses in Geography.

*Ccartography* (1 course):

GEOG 3510/GEOG 3510L: Cartography and Graphics

*Core* (6 courses): 4 courses in Physical Geography (Geomorphology, Climatology, Biogeography) and two courses from GIS/Remote Sensing/Image Analysis

**Physical Geography** (4 courses): select 1 course from each of the following areas (geomorphology, climatology, biogeography) plus another one from any of those three physical geography areas.

**Geomorphology**

GEOG 3010: General Geomorphology
GEOG 4020: Fluvial Geomorphology
GEOG 4030: Geomorphology and Environmental Change in Karst and Arid Environments
GEOG 4040: Global Environmental Change during the Quaternary
GEOG 4060: Field and Laboratory Methods in Physical Geography
GEOG 4070: Field Study of Geomorphology
WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOL) 4700L: Hydrology, Geology, and Soils of Georgia

**Climatology**

GEOG 3110: Climatology
GEOG 3120/L: Weather Analysis and Forecasting
GEOG 3130: Atmospheric Hazards
GEOG 3180: Global Climate Change
(GEOG)ENGR 4111/L: Thermodynamics
(GEOG)ENGR 4112: Atmospheric Dynamics
GEOG 4114: Atmospheric Dynamics II
GEOG 4120: Synoptic Meteorology/Climatology
GEOG 4140: Satellite Meteorology/Climatology
GEOG 4150: Physical Climatology
GEOG 4160: Applied Climatology in the Urban Environment
GEOG 4170/L: Mesoscale and Radar Meteorology/Climatology
(GEOG)ENGR 4161/L: Environmental Microclimatology
(GEOG)ENGR 4180: Special Topics in Atmospheric Science
GEOG 4911: Collaborative Research in Atmospheric Sciences
Earth System Science (continued):

**Biogeography**
- GEOG 3210: Biogeography
- GEOG 3290: Mountain Geography
- GEOG 4220: Ecological Biogeography
- GEOG 4240: Plant Geography

**Remote Sensing/Image Analysis** (2 courses): select 2 course from the following:
- GEOG 4140: Satellite Meteorology/Climatology
- GEOG 4330/L: Aerial Photographs and Image Interpretation
- GEOG 4350/L: Remote Sensing of Environment (PR: 4330)
- GEOG 4370/L: Geographic Information Science
- GEOG 4430/L: Advanced Image Analysis and Photogrammetry (PR: 4330 or 4350)

--- **Human Geography** (1 course): select 1 3000- or 4000-level human geography course

Note: All Departmental, College and University requirements for the BS degree must be observed.
**Geospatial Analysis and Visualization (for BS degree only)**

The *Geospatial Analysis and Visualization* area of emphasis provides students with concepts, principles and techniques of geographic information science (GIScience) that focus on spatial analysis, modeling and cartographic mapping, including interactive and animated visualizations. This area of emphasis will prepare students for careers related to cultural and resource management, planning, environmental design and sustainable development that require geographic data analysis and display.

**Upper division courses:** You will take a total of 8 upper division courses in Geography.

**Required Courses:** (4 courses)

- GEOG 3510: Cartography and Graphics
- *GEOG 4370-4370L: Geographic Information Science*
- *GEOG 4410-4410L: Cartographic Visualization Methods*
- GEOG 4470-4470L: Geospatial Analysis

**Elective Course:** (select 1 course)

- GEOG 4300: Introductory Spatial Analysis
- GEOG 4350-4350L: Remote Sensing of Environment
- GEOG 4380-4380L: Transportation Modeling and GIS
- *GEOG 4330-4330L: Aerial Photographs and Image Interpretation*
- GEOG 4570-4570L: Advanced GIScience
- GEOG 4590-4590L: Programming for GIScience

**Human Geography** (1 course): Select 1 3000- or 4000-level human geography course.

**Physical Geography** (2 courses): Select 2 3000- or 4000-level physical geography courses.

**Additional Information:**

Note: All Departmental, College and University requirements for the BS degree must be observed.

Students who achieve a 3.0 GPA in required and elective courses of Geospatial Analysis and Visualization area of emphasis may be qualified for a **GIScience** certificate. Please check UGA’s GIScience Certificate Program for details.

*core courses for the GIScience Certificate*
**Remote Sensing and Photogrammetry (for BS degree only)**

The *Remote Sensing and Photogrammetry* area of emphasis will provide students with principles and practice in the use of remote sensing data, sensors and applications including optical, radar and Light Detection and Ranging (LIDAR) technologies. Students will study photogrammetry, which is the science of making measurements from traditional aerial photographs and images from digital cameras. This area of emphasis will prepare students for careers in fields such as natural and cultural resource monitoring, geospatial intelligence, planning and disaster response.

**Upper division courses:** You will take a total of 8 upper division courses in Geography.

**Required Courses:** (4 courses)

- GEOG 3510: Cartography and Graphics
- *GEOG 4370-4370L:* Geographic Information Science
- *GEOG 4330-4330L:* Aerial Photographs and Image Interpretation
- GEOG 4350-4350L: Remote Sensing of Environment

**Elective Courses:** (select 1 course)

- GEOG 4140: Satellite Meteorology/Climatology
- *GEOG 4410-4410L:* Cartographic Visualization Methods
- GEOG 4430-4430L: Advanced Image Analysis and Photogrammetry
- GEOG 4470-4470L: Geospatial Analysis
- GEOG 4570-4570L: Advanced GIsScience
- GEOG 4590-4590L: Programming for GIScience

**Human Geography** (1 course): Select 1 3000- or 4000-level human geography course.

**Physical Geography** (2 courses): Select 2 3000- or 4000-level physical geography course.

**Additional Information:**

Note: All Departmental, College and University requirements for the BS degree must be observed.

Students who achieve a 3.0 GPA in required and elective courses of Remote Sensing and Photogrammetry area of emphasis may be qualified for a **GIsScience** certificate. Please check UGA's GIsScience Certificate Program for details.

*core courses for the GIS Certificate
Geography - A.B.

DEGREE REQUIREMENTS

Entrance Requirements for the Major

General Education Core Curriculum
(Selected with the advice of an academic advisor)
Areas I II III IV V

Area VI

Major Requirements

College-wide Requirements must be satisfied in order to graduate with this major

TOTAL DEGREE HOURS 120 hours

I. FOUNDATION COURSES (9 HOURS)

ENGL 1101 or ENGL 1101E
ENGL 1102 or ENGL 1102E or ENGL 1102M or ENGL 1050H or ENGL 1060H
MATH 1101 or MATH 1113 or MATH 2200 or MATH 2250 or MATH 2300H or MATH 2400 or MATH 2400H or MATH 2410 or MATH 2410H

II. SCIENCES (7-8 HOURS)

At least one of the physical science or life science courses must include a laboratory.

Physical Sciences (3-4 hours)

Preferred Course(s): (GEOG 1111 and GEOG 1111L) or (GEOG 2110H and GEOG 2110L) or (GEOG 1112 or GEOG 1112L) or (GEOG 2120H or GEOG 2120L) or (GEOG 1113 and GEOG 1113L)

Life Sciences (3-4 hours)

No preferred courses for this area. See Core Curriculum view.

III. QUANTITATIVE REASONING (3-4 HOURS)

No preferred courses for this area. See Core Curriculum view.

IV. WORLD LANGUAGES AND CULTURE, HUMANITIES AND THE ARTS (12 HOURS)

World Languages and Culture (9 hours)

Preferred Course(s): GEOG 1101 or GEOG 2010H-2010D

Humanities and the Arts (3 hours)
V. SOCIAL SCIENCES (9 HOURS)

- Students who have not met the Georgia and U.S. Constitution requirement by examination should enroll in POLS 1101.
- A passing grade on an examination on the history of the United States and Georgia is required to satisfy the University, unless exempted by one of the following courses: HIST 2111, HIST 2112. Examinations are given to freshmen during orientation and twice each semester by the History Department. Reexamination is permitted. Examination dates are announced in the Schedule of Classes.

Preferred Course(s): GEOG 1103 or GEOG 1125

Area VI
1. GEOG 2300 or STAT 2000 or STAT 2100H
2. Foreign Language (third semester)
3. Choose a total of four courses from the course lists below (not taken in Area V):
   AFAM 2000 or AFAM 2000H
   ECON 2105 or ECON 2105H
   ECON 2106 or ECON 2106H
   PHIL 2020 or PHIL 2020H
   SOCI 2600
   WMST 2010 or WMST 2010H

No more than two courses from the following:
   AFST(ANTH)(CMLT)(GEOG)(HIST)(SOCI) 2100
   GEOG 1103 or GEOG 2130H-2130D
   GEOG 1125 or GEOG 2250H-2250D
   GEOG 2610

No more than one from the following:
   Fourth semester of a Foreign Language
   One 2000-level SOCI course not listed above
   One 2000-level HIST course beyond the course taken in Area V

4. If items 1 or 2 above have been satisfied elsewhere in the core, students may make up their 18 semester hours with additional options listed under item 3.

MAJOR REQUIREMENTS

A baccalaureate degree program must require at least 21 semester hours of upper division courses in the major field and at least 39 semester hours of upper division work overall. Students in the Franklin College must earn a grade of "C" (2.0) or better in major required courses.

Required Courses (24-26 hours)
(A minimum grade of "C" (2.0) must be earned in each upper-division course.)

GEOG 3510-3510L
Choose two courses from Group A listed below
Choose one course from Group B listed below
Choose four courses from the four groups listed below
(At least two of the seven selected courses must be 4000-level courses from Group A and/or Group C)
No more than six (6) credit hours from Group D may be counted towards satisfying the major requirements.

Group A -- Human/Regional Geography
Systematic focus:
GEOG 3620
GEOG 3630
GEOG 3640
GEOG 3660
GEOG 4610/6610
GEOG 4620/6620
GEOG 4630/6630

Regional focus:
GEOG(AFST) 3650
GEOG 4290/6290
GEOG 4710/6710
GEOG 4720/6720

Group B -- Physical Geography
Geomorphology
GEOG 3010
GEOG 4020/6020
GEOG 4030/6030

Climatology
ENGR(GEOG) 4111/6111-4111L/6111L
ENGR(GEOG) 4161/6161-4161L/6161L
ENGR(GEOG) 4180/6180
GEOG 3110
GEOG 3120-3120L
GEOG 3130
GEOG(ENGR) 4112/6112

Biogeography
CRSS(HORT)(ANTH)(ECOL)(GEOG) 4930/6930
CRSS(HORT)(ANTH)(ECOL)(GEOG) 4931/6931
FANR(ANTH)(ECOL)(GEOG)(INTL)(RLST) 4271/6271
FORS(ECOL)(GEOG) 4250/6250
GEOG 3210

Group C -- Geographic Techniques
GEOG 3990
GEOG 4300/6300

GEOG 4640/6640
GEOG 4650/6650
GEOG 4660/6660
GEOG 4670/6670
GEOG 4680/6680
GEOG 4860/6860
GEOG 4890/6890
GEOG 4730/6730
GEOG 4740/6740
GEOG 4750/6750

WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOG) 4700L/6700L
GEOG 4040/6040
GEOG 4060/6060

GEOG 4114/6114
GEOG 4120/6120
GEOG 4140/6140
GEOG 4150/6150
GEOG 4160/6160
GEOG 4170/6170-4170L/6170L
GEOG 4911/6911

GEOG 3290
GEOG(PBIO) 4220/6220
GEOG(PBIO) 4240/6240
GEOG 4290/6290
GEOG 4810/6810

GEOG 4380/6380-4380L/6380L
GEOG 4410/6410-4410L/6410L
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<td>GEOG 4590/6590-4590L/6590L</td>
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<td>GEOG 4370/6370-4370L/6370L</td>
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<td>GEOG(CRSS) 4375/6375</td>
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**Group D -- Miscellaneous Geography Courses**

| GEOG 3990 | GEOG 4980H |
| GEOG 4921/6921 | GEOG 4990H |
| GEOG 4970H |

**General Electives (34-36 hours)**
(Refer to College-wide requirements when selecting general electives.)
Upper division (19-30 hours)
Any level (4-17 hours)

(This total does not include the 1-hour P.E. requirement)
**Geography - B.S.**

**DEGREE REQUIREMENTS**

**Entrance Requirements for the Major**

**General Education Core Curriculum**
(Selected with the advice of an academic advisor)

Areas I II III IV V

Area VI

**Major Requirements**

*College-wide Requirements must be satisfied in order to graduate with this major*

**TOTAL DEGREE HOURS** 120 hours

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**I. FOUNDATION COURSES (9 HOURS)**

- **ENGL 1101 or ENGL 1101F**
- **ENGL 1102 or ENGL 1102F or ENGL 1102M or ENGL 1050H or ENGL 1060H**
- **MATH 1113 or MATH 2200 or MATH 2250 or MATH 2300H or MATH 2400 or MATH 2400H or MATH 2410 or MATH 2410H**

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**II. SCIENCES (7-8 HOURS)**

At least one of the physical science or life science courses must include a laboratory.

**Physical Sciences (3-4 hours)**

Preferred Course(s): (GEOG 1111 and GEOG 1111L) or (GEOG 2110H and GEOG 2110L) or (GEOG 1112 and GEOG 1112L) or (GEOG 2120H and GEOG 1112L) or (GEOG 1113 and GEOG 1113L)

**Life Sciences (3-4 hours)**

No preferred courses for this area. See Core Curriculum view.

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**III. QUANTITATIVE REASONING (3-4 HOURS)**

No preferred courses for this area. See Core Curriculum view.

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**IV. WORLD LANGUAGES AND CULTURE, HUMANITIES AND THE ARTS (12 HOURS)**

**World Languages and Culture (9 hours)**

Preferred Course(s): GEOG 1101 or GEOG 2010H-2010D

**Humanities and the Arts (3 hours)**
No preferred courses for this area. See Core Curriculum view.

V. SOCIAL SCIENCES (9 HOURS)

- Students who have not met the Georgia and U.S. Constitution requirement by examination should enroll in POLS 1101.
- A passing grade on an examination on the history of the United States and Georgia is required to satisfy the United States and Georgia History Requirement for all persons receiving a baccalaureate degree from the University, unless exempted by one of the following courses: HIST 2111, HIST 2112. Examinations are given to freshmen during orientation and twice each semester by the History Department. Reexamination is permitted. Examination dates are announced in the Schedule of Classes.

Preferred Course(s): GEOG 1103 or GEOG 2130H-2130D or GEOG 1125 or GEOG 2250H-2250D

Area VI

1. GEOG 2300 or STAT 2000 or STAT 2100H
2. (MATH 2200 or MATH 2300H) or (MATH 2310H or MATH 2400H or MATH 2410H) or MATH 2250* or MATH 2260
3. CSCI 1100-1100L or MIST 2190H or CSCI 1210 or CSCI 1301-1301L
4. Two lab science courses, beyond those required under Area II, in BIOL, CHEM, GEOG, GEOL, or PHYS (both courses can be from the same department)
5. If items 1, 2, or 3 above have been satisfied elsewhere in the core, students may make up the remainder of their eighteen semester hours with 1000/2000-level courses in BIOL, CHEM, CSCI, ECOL, GEOG, GEOG, MATH (2000-level), PHYS, or STAT.

* MATH 2250 is strongly encouraged for a meteorology/climatology focus.

If any of the courses in Area VI have been used to satisfy Areas II-V of the Core Curriculum, General Electives may be taken here. (Refer to College-wide requirements when selecting General Electives)

MAJOR REQUIREMENTS

A baccalaureate degree program must require at least 21 semester hours of upper division courses in the major field and at least 39 semester hours of upper division work overall.

Students in the Franklin College must earn a grade of "C" (2.0) or better in major required courses.

Required Courses (24-26 hours)

(A minimum grade of "C" (2.0) must be earned in each upper-division course.)

GEOG 3610-3610L
Choose two courses from Group B listed below

Choose one course from Group A listed below
Choose four courses from the four groups listed below

(At least two of the seven selected courses must be 4000-level courses from Group B and/or Group C)

No more than six (6) credit hours from Group D may be counted towards satisfying the major requirements.

Group A – Human/Regional Geography
Systematic focus:

GEOG 3620
GEOG 3630
GEOG 3640

GEOG 4640/6640
GEOG 4650/6650
GEOG 4660/6660
<table>
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<tr>
<td>GEOG 3660</td>
<td>GEOG 4670/6670</td>
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<tr>
<td>GEOG 4610/6610</td>
<td>GEOG 4680/6680</td>
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<td>GEOG 4620/6620</td>
<td>GEOG 4860/6860</td>
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<td>GEOG 4630/6630</td>
<td>GEOG 4890/6890</td>
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<tr>
<td><strong>Regional focus:</strong></td>
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<tr>
<td>GEOG(AFST) 3650</td>
<td>GEOG 4730/6730</td>
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<tr>
<td>GEOG 4290/6290</td>
<td>GEOG 4740/6740</td>
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<tr>
<td>GEOG 4710/6710</td>
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<td>GEOG 4720/6720</td>
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**Group B — Physical Geography**

**Geomorphology**

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<tr>
<td>GEOG 3010</td>
<td>GEOG 4040/6040</td>
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<td>GEOG 4020/6020</td>
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</tr>
<tr>
<td>GEOG 4030/6030</td>
<td>WASR(CRSS)(ENGR)(GEOG)(GEOI) 4700L/6700L</td>
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**Climatology**

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<tr>
<td>ENGR(GEOG) 4111/6111-4111L/6111L</td>
<td>GEOG 4112/6112</td>
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<tr>
<td>ENGR(GEOG) 4161/6161-4161L/6161L</td>
<td>GEOG 4120/6120</td>
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<td>ENGR(GEOG) 4180/6180</td>
<td>GEOG 4140/6140</td>
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<td>GEOG 3110</td>
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<td>GEOG 3120-3120L</td>
<td>GEOG 4160/6160</td>
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<tr>
<td>GEOG 3130</td>
<td>GEOG 4170/6170-4170L/6170L</td>
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<tr>
<td>GEOG 4114/6114</td>
<td>GEOG 4911/6911</td>
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**Biogeography**

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<td>GEOG 3290</td>
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<tr>
<td>CRSS(HORT)(ANTH)(ECOL)(GEOG) 4931/6931</td>
<td>GEOG(PBIO) 4220/6220</td>
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<td>FANR(ANTH)(ECOL)(GEOG)(INTL)(RLST) 4271/6271</td>
<td>GEOG(PBIO) 4240/6240</td>
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<td>FDRS(ECOL)(GEOG) 4250/6250</td>
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<td>GEOG 3210</td>
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**Group C — Geographic Techniques**

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<td>GEOG 4300/6300</td>
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<td>GEOG 4370/6370-4370L/6370L</td>
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<td>GEOG(CRSE) 4375/6375</td>
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**Group D -- Miscellaneous Geography Courses**

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**General Electives (34-36 hours)**

(Refer to College-wide requirements when selecting general electives.)

Upper division (19-30 hours)
Any level (4-17 hours)

(This total does not include the 1-hour P.E. requirement)