

Bachelor of Science (BS) & Bachelor of Arts (BA) Degree

Options in: Environmental & Physical Resource Analysis; Geographic Information and Spatial Analysis; and International, Regional, and Urban Studies

## GEOGRAPHY MAJOR (2008 - 2009)

### INTELLECTUAL FOUNDATIONS PROGRAM (I.F.P.) and FOREIGN LANGUAGE REQUIREMENTS

#### ENGLISH COMPOSITION (6 credits, two courses, must get a C or better)

ENC 1101	College Writing 1 (Gordon Rule Writing) (3 credits)
ENC 1102	College Writing 2 (Gordon Rule Writing) (3 credits)

#### MATHEMATICS (6 credits minimum, two courses from the following list) (Gordon Rule, must get a C or better)

##### MUST TAKE A PLACEMENT TEST BEFORE REGISTERING FOR MATH COURSES

MAC 1105 & L	College Algebra (3 credits) - <i>or higher MAC course Recommended</i>
MAC 1114	Trigonometry (3 credits)
MAC 1140	Precalculus Algebra (3 credits)
MAC 1147	Precalculus Algebra and Trigonometry (5 credits)
MAC 2233	Methods of Calculus (3 credits) – <b>REQUIRED for BS degree or higher math</b>
MAC 2311**	Calculus with Analytic Geometry 1 (4 credits)
MAC 2312	Calculus with Analytic Geometry 2 (4 credits)
STA 2023 & L	Introductory Statistics (3 credits) – <b>REQUIRED</b>

#### SOCIAL SCIENCES (9 credits, 3 courses, from 3 disciplines) ♦

ANT 2000 (D)	Introduction to Anthropology (3 credits) Recommended
ANT 2410	Culture and Society (3 credits)
GEA 2000 (D)	World Geography (3 credits) <b>Meets introductory World Geography requirement - see next page</b>
ECO 2023*	Microeconomic Principles (3 credits)
ECO 2013*	Macroeconomic Principles (3 credits) - Recommended
ECP 2002	Contemporary Economic Issues (3 credits) – <i>Recommended for non-business majors</i>
PAD 2258	Changing Environment of Society, Business & Government (3 credits)
POS 1041	The Government of the United States (3 credits)
INR 2002	Introduction to World Politics (3 credits)
PSY 1012	General Psychology (3 credits)
SYG 1000	Introductory Sociology (3 credits)
SYG 2010	Social Problems (3 credits)

**\*Sophomore standing is a prerequisite**

#### HUMANITIES (9 credits, three courses) ♦ (Choose **TWO** courses from two disciplines)

LIT 2010	Interpretation of Fiction (Gordon Rule Writing, C or better)(3 credits)
LIT 2030	Interpretation of Poetry (Gordon Rule Writing, C or better)(3 credits)
LIT 2040	Interpretation of Drama (Gordon Rule Writing, C or better)(3 credits)
WOH 2012 (D)	History of Civilization (Gordon Rule Writing, C or better)(3 credits)
PHI 2010 (D)	Introduction to Philosophy (Gordon Rule Writing, C or better) (3 credits)

**and** Choose **ONE** from the following five courses.

ARC 2208	Culture and Architecture: Master Builder (3 credits)
ARH 2000 (P/F)	Art Appreciation (3 credits)
DAN 2100	Appreciation of Dance (3 credits)
FIL 2000 (D)	Film Appreciation (3 credits)
MUL 2010	History and Appreciation of Music (3 credits)
THE 2000	Appreciation of Theater (3 credits)

#### FOREIGN LANGUAGE (4 - 8 credits, 1 or more courses in the same language) **REQUIRED FOR MAJOR**

Students with more than one year of foreign language in high school should enroll in Beginning Language and Culture 2 (FOL/FRE/GER/GRE/GRK/HBR/ITA/JPN/LAT/SPN 1121) or a higher-level course. Students can earn proficiency for a first-level course by successfully completing a second-level course. For questions related to this requirement, consult an academic advisor.

**NOTE: Native speakers of a foreign language must consult the Languages & Linguistics dept. regarding this requirement.** CLEP exam credits meets this requirement, see catalog.

**CLAST:** Satisfy the College Level Academic Skills Test (CLAST) see Catalog for options.

♦ **NOTE: Honors Seminars SHALL BE ACCEPTED AS MEETING THE GORDON RULE WRITING REQUIREMENT.**  
See Freshman Academic Advising Services Office for details.

**SCIENCE - MINIMUM GENERAL SCIENCE REQUIREMENTS FOR BA DEGREE** - (6 credits from 2 departments, from below or a higher level science course from these departments, at least one lab)

ANT 2512 & L	Introduction to Biological Anthropology with lab (4 credits, Anthropology) for non-science majors
AST 2002 (P/F)	Introduction to Astronomy (3 cr, Physics) for non-science majors
BSC 1005 & L	Life Science with lab (3 cr, Biology) for non-science majors
BSC 1011 & L	Biodiversity with lab (4 cr, Biology)
CHM 1020C	Contemporary Chemical Issues (3 cr, Chemistry) for non-science majors
CHM 2083 (P/F)	Chemistry in Modern Life (3 cr, Chemistry) for non-science majors (Online Course)
CHM 2032	Chemistry for the Health Related Sciences (3 cr, Chemistry)
CHM 2045 & L	General Chemistry I with lab (4 credits, Chemistry)
ESC 2070	The Blue Planet (3 credits, Geology) for non-science majors (Online Course)
GLY 2010 & L	Evolution of the Earth with lab (4 cr, Geology -- <b>fulfills major core requirement, see next page</b> )
GLY 2100	History of Earth & Life (3 cr, Geology) for non-science majors
MET 2010 & D	Weather and Climate (3 cr, Geography -- <b>fulfills major core requirement, see next page</b> )
OCE 2001 (P/F)	Introduction to Oceanography (3 cr, Ocean Eng) for non-science majors
PSC 2121	Physical Science (3 credits, Physics) for non-science majors
PHY 2053	College Physics for Life Sciences 1 (4 credits, w/lab, 5 cr., Physics)
PHY 2048	General Physics 1 (4 credits, w/lab 5 credits, Physics)

## MAJOR COURSES, ELECTIVES, AND COLLEGE REQUIREMENTS

### ALL GEOGRAPHY B.A. MAJORS (51 credit hours)

#### Required Lower Division Core (9 - 10 Credits, 3 courses)

World Geography	GEA 2000	(3 credits)
Weather and Climate	MET 2010 & D	(3 credits)
Intro to Physical Geography	GEO 2200C	(3 credits)
<b>or</b>		
Physical Geology/Evolution of the Earth	GLY 2010 & L	(4 credits)

#### Required Upper Division Geosciences Core (15 credits, 5 courses)

Introduction to Maps and GIS	GIS 3015C	(3 credits)
Principles of GIS	GIS 4043C	(3 credits)
Remote Sensing of Environment	GIS 4035C	(3 credits)
Quantitative Methods	GEO 4022	(3 credits)
Human - Environmental Interactions in South Florida	GEA 4275	(3 credits)

### STUDENTS MUST SELECT ONE OF THE FOLLOWING TRACKS FOR 27 CREDIT HOURS:

#### Track 1: Human - Environmental Interactions (27 Credits)

*(Preparation for careers that focus on analysis of environmental problems and issues)*

##### **GIScience – 6 credit hours from the following courses:**

Digital Image Analysis	GIS 4037C	(3 credits)
Applications in GIS	GIS 4048C	(3 credits)
Geovisualization and GIS	GIS 4138C	(3 credits)
Programming in GIS	GIS 4102C	(3 credits)
Spatial Data Analysis	GEO 4167C	(3 credits)

**6 credits Subtotal**

##### **Environmental Systems – 12 to 15 credits from the following courses:**

Environmental Issues in Atmospheric & Earth Science	ESC 3704	(3 credits)
Water Resources	GEO 4280	(3 credits)
Biogeography	GEO 4300	(3 credits)
Coastal & Marine Science	GLY 3730	(3 credits)
Geomorphology	GLY 4700C	(3 credits)
Field Methods	GLY 4750C	(3 credits)
Hydrogeology	GLY 4822	(3 credits)

**12 - 15 credits Subtotal**

##### **Human Systems – 6 to 9 credits from the following courses:**

American Cultural Landscape	GEO 4422	(3 credits)
Tourism and Commercial Recreation	GEO 4542	(3 credits)
Urban Geography	GEO 4602	(3 credits)
Transportation & Spatial Organization	GEO 4700	(3 credits)
Economic Geography	GEO 4502	(3 credits)
Europe	GEA 4500	(3 credits)
Geography of Latin America & the Caribbean	GEA 4405	(3 credits)

**6 - 9 credits Subtotal**

**Track 1 Specialization Total**

**27 credits Total**

**Track 2: Geographic Information Science (27 Credits)***(Preparation for careers involving the interpretation and analysis of cultural, economic, and physical features of the Earth)***GIScience – 12 credit hours from the following courses:**

Digital Image Analysis	GIS 4037C	(3 credits)
Applications in GIS	GIS 4048C	(3 credits)
Geovisualization and GIS	GIS 4138C	(3 credits)
Programming in GIS	GIS 4102C	(3 credits)
Spatial Data Analysis	GEO 4167C	(3 credits)

**12 credits Subtotal****Environmental Systems – 6 to 9 credits from the following courses:**

Environmental Issues in Atmospheric & Earth Science	ESC 3704	(3 credits)
Water Resources	GEO 4280C	(3 credits)
Biogeography	GEO 4300	(3 credits)
Coastal and Marine Science	GLY 3730	(3 credits)
Geomorphology	GLY 4700C	(3 credits)
Field Methods	GLY 4750C	(3 credits)
Hydrogeology	GLY 4822	(3 credits)

**6 to 9 credits Subtotal****Human Systems – 6 to 9 credits from the following courses:**

American Cultural Landscape	GEO 4422	(3 credits)
Economic Geography	GEO 4502	(3 credits)
Tourism and Commercial Recreation	GEO 4542	(3 credits)
Urban Geography	GEO 4602	(3 credits)
Transportation and Spatial Organization	GEO 4700	(3 credits)
Europe	GEA 4500	(3 credits)
Geography of Latin America	GEA 4405	(3 credits)

**6 to 9 credits Subtotal****Track 2 Specialization Total****27 credits Total****Track 3: Regional and Metropolitan Analysis (27 Credits)***(Preparation for careers involving the interpretation and analysis of regional and metropolitan features)***GIScience – 6 credit hours from the following courses:**

Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	(3 credits)
Digital Image Analysis	GIS 4037C	(3 credits)
Applications in GIS	GIS 4048C	(3 credits)
Geovisualization and GIS	GIS 4138C	(3 credits)
Programming in GIS	GIS 4102C	(3 credits)
Spatial Data Analysis	GEO 4167C	(3 credits)

**6 credits Subtotal****Regional and Environmental Systems – 6 - 9 credits from the following courses:**

Environmental Issues in Atmospheric & Earth Science	ESC 3704	(3 credits)
Water Resources	GEO 4280C	(3 credits)
Engineering Geology	GLY 4830	(3 credits)
Geography of Latin America	GEA 4405	(3 credits)
Environment and Planning Methods	URP 4420	(3 credits)

**6 - 9 credits Subtotal****Human Systems – 12 credits from the following courses:**

American Cultural Landscape	GEO 4422	(3 credits)
Economic Geography	GEO 4502	(3 credits)
Tourism and Commercial Recreation	GEO 4542	(3 credits)
Urban Geography	GEO 4602	(3 credits)
Transportation and Spatial Organization	GEO 4700	(3 credits)

**9 - 12 credits Subtotal****Urban and Regional Planning Courses – 3 credits from the following courses:**

Planning and Growth Management	URP 3000	(3 credits)
Planning Implementation Strategies	URP 4120	(3 credits)
Plan Making and Design	URP 4343	(3 credits)
Urban Development Planning Methods	URP 4546	(3 credits)

**3 credits Subtotal****Track 3 Specialization Total****27 credits Total****NOTE:** Upper-division courses must total "at least" 45 credits.

40 – 44 credits	Intellectual Foundations Program (I.F.P.) and Foreign Language Requirements
25 – 29 credits	Electives and/or Recommended Courses
24 – 25 credits	Geography Major Core
27 credits	Geography Major Tracks BA Degree
<b>120 Credits</b>	<b>TOTAL</b>

## BACHELOR OF SCIENCE (BS) DEGREE IN GEOGRAPHY

Students must meet University Requirements for Arts and Humanities, Social Science, English, and Foreign Language.

### Minimum General Science Requirements

#### Natural Science Requirements (13 credits):

Biodiversity & Lab	BSC 1011 & L	(4credits)
<b>or</b>		
Biological Principles & Lab	BSC 1010 & L	(4 credits)
General Chemistry I & Lab	CHM 2045 & L	(4 credits)
College or General Physics I	PHY 2048* or 2053**	(4 credits)
<b>AND</b>		
General Physics I Lab	PHY 2048L	(1 credit)

\* Prerequisite of a "C" in one these math courses: MAC 1114 / 1147 / 2233 / 2253 / 2241 / 2311

\*\* Prerequisite of a "C" in MAC 2311 or MAC 2253

#### Mathematical Sciences Requirements (6 credits):

#### MUST TAKE A PLACEMENT TEST BEFORE REGISTERING FOR MATH COURSES

Introductory Statistics & Lab	STA 2023 & L	(3 credits)
Methods of Calculus (or above)	MAC 2233	(3 credits)

<b>General Science and Math</b>	<b>Subtotal</b>	<b>(19 credits)</b>
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*Additional Course work, such as the second introductory class in the above sciences is strongly recommended. Students should speak with their academic advisor for specific recommendations.*

#### Required Lower Division Core: (9 - 10 credits)

Weather & Climate	MET 2010 & D	(3 credits)
Introductory Physical Geography	GEO 2200C	(3 credits)
<b>or</b>		
Physical Geology/Evolution of the Earth and Lab	GLY 2010 & L	(4 credits)
History of Earth and Life	GLY 2100	(3 credits)

#### Geosciences Upper Division Core: (18 credits)

Introduction to Mapping and GIS	GIS 3015C	(3 credits)
Principles of GIS	GIS 4043C	(3 credits)
Remote Sensing of Environment	GIS 4035C	(3 credits)
Quantitative Methods	GEO 4022	(3 credits)
Human-Environmental Interactions in South Florida	GEA 4275	(3 credits)
Field Methods	GLY 4750C	(3 credits)

#### Track 1: Environmental Systems

*(Preparation for careers that focus on scientific assessment of environmental problems and issues)*

#### GIScience – 6 to 9 credit hours from the following courses:

Digital Image Analysis	GIS 4037C	(3 credits)
Applications in GIS	GIS 4048C	(3 credits)
Geovisualization and GIS	GIS 4138C	(3 credits)
Programming in GIS	GIS 4102C	(3 credits)
Spatial Data Analysis	GEO 4167C	(3 credits)

**6 to 9 credits Subtotal**

#### Environmental Geoscience – 18 to 21 credits from the following:

Environmental Issues in Atmospheric & Earth Science	ESC 3704	(3 credits)
Water Resources	GEO 4280C	(3 credits)
Biogeography	GEO 4300	(3 credits)
Coastal and Marine Science	GLY 3730	(3 credits)
Geomorphology	GLY 4700C	(3 credits)
Hydrogeology	GLY 4822	(3 credits)
Any 4000 level GLY course	GLY 4xxx	(3 credits)

**18 to 21 credits Subtotal**

**Track 1 Specialization Total**

**27 credits Total**

**Track 2: Geographic Information Science**

(Preparation for careers involving the interpretation and analysis of cultural, economic, and physical features of the Earth with a good understanding of basic science)

**GIScience – 12 to 15 credit hours from the following courses:**

Digital Image Analysis	GIS 4037C	(3 credits)
Applications in GIS	GIS 4048C	(3 credits)
Geovisualization and GIS	GIS 4138C	(3 credits)
Programming in GIS	GIS 4102C	(3 credits)
Spatial Data Analysis	GEO 4167C	(3 credits)
		<b>12 to 15 credits Subtotal</b>

**Environmental Systems – 6 or 9 credits from the following courses:**

Environmental Issues in Atmospheric & Earth Science	ESC 3704	(3 credits)
Water Resources	GEO 4280C	(3 credits)
Biogeography	GEO 4300	(3 credits)
Coastal and Marine Science	GLY 3730	(3 credits)
Geomorphology	GLY 4700C	(3 credits)
Hydrogeology	GLY 4822	(3 credits)
		<b>6 or 9 credits Subtotal</b>

**Human Systems – 6 to 9 credits from the following courses:**

American Cultural Landscape	GEO 4422	(3 credits)
Economic Geography	GEO 4502	(3 credits)
Tourism and Commercial Recreation	GEO 4542	(3 credits)
Urban Geography	GEO 4602	(3 credits)
Transportation and Spatial Organization	GEO 4700	(3 credits)
		<b>6 to 9 credits Subtotal</b>

**Track 2 Specialization Total****27 credits Total****Total Minimum Geography Major Course credits: 45 credits upper division**

Additional undergraduate courses in geography, geology, general science and other subjects should be chosen in consultation with your advisor.

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28 - 32 credits	Intellectual Foundations Program (I.F.P.) and Foreign Language Requirements (w/out Science & Math)
19 credits	Science and Math
11 - 15 credits	Free Electives (9 credits must be upper division)
54 - 55 credits	Geography Major Courses BS Degree
<b>120 Credits</b>	<b>TOTAL</b>

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**NOTE:** See the catalog for specific requirements, course descriptions, and additional information. The requirements for some Intellectual Foundations Program (I.F.P.) courses & other courses may be satisfied by passing the appropriate AP or CLEP exam. Check with your advisor and college.

The Geosciences Department has the following requirements:

- (1) students must get a **C or higher in all Sciences, Math and Cognate courses** to receive major credit, and
- (2) no major course can be taken pass/fail.

Minors are available in this major -- see the catalog for details. *All course selections should be made in consultation with an advisor.*

**STUDENTS ASSUME ALL RESPONSIBILITY FOR MEETING ALL GRADUATION REQUIREMENTS.****(05/08)**