

Undergraduate Academic Assessment Plan 2012 2013

Geography BS

(CIP 45.0701)

College of Liberal Arts
and Sciences

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Geography – BS

College of Liberal Arts and Sciences

Undergraduate Academic Assessment Plan

Introduction

Geography offers a Bachelor of Arts and Bachelor of Science. Departmental teaching and research interests fall under four broad headings of Human –Environment Interactions, Medical Geography, Physical Geography and Economic Geography, although there is active interaction and exchange among them. Our students learn quantitative methods and geospatial technologies such as geographic information systems (GIS) and satellite remote sensing. Many of our graduates find work relevant to their degrees, in government, geospatial technology industries (including defense contractors), local and global conservation organizations, the military, teaching and more.

Mission Statement

The geography programs at the University of Florida are guided by the following mission:

The Geography B.S. degree program in the University of Florida’s College of Liberal Arts and Sciences prepare students for employment or graduate study by educating them about the complex relations among people, places, and environments. Our degrees are flexible and allow students to combine fundamental background knowledge with specialized coursework in natural resources, physical/environmental geography, geospatial technologies, planning and economic geography, medical geography and other areas to tailor their degrees to enter professional careers in geosciences, geospatial fields, planning, real estate, medical geography and other related professions. Through teaching, research and service, the Geography department is focused on understanding human-environmental relations on Earth through posing questions and analyzing data with statistics, mapping and geospatial technologies.

This mission aligns directly with the College of Liberal Arts and Sciences mission (<http://www.clas.ufl.edu/about/>), specifically its foremost mission

“...to lead the academic quest to understand our place in the universe, and to help shape our society and environment.” As in the college “students acquire an intellectual foundation based on a well-rounded and comprehensive education designed for an increasingly technological and rapidly changing society.”

This mission aligns directly with the University of Florida’s mission listed in the catalog (<https://catalog.ufl.edu/ugrad/current/uf-mission/pages/home.aspx>). Complementing the university’s land-grant, sea-grant and space-grant status, geographers study the Earth’s surface, oceans and atmosphere, and how humans are transforming Earth. The department, as the University,

“...participates in an educational process that links the history of Western Europe with the traditions and cultures of all societies, explores the physical and biological universes and

nurtures generations of young people from diverse backgrounds to address the needs of the world's societies." We also work to "create the broadly diverse environment necessary to foster multi-cultural skills and perspectives in its teaching and research for its students to contribute and succeed in the world of the 21st century" by promoting more international and social understanding, and introducing students to geographic technologies. As such, Geography "aspires to advance by strengthening the human condition and improving the quality of life."

Student Learning Outcomes (SLOs)

Our current SLOs for our B.S. and their links are listed below. The B.S. has an additional student learning outcome that we are requesting to eliminate through the approvals system for purposes of difficulty in testing foundations and content from instructors in other departments, and for consistency and simplicity across the curriculum. Students pursuing the B.S. are also required to focus their geography coursework in physical geography and geospatial technologies. Currently, that outcome (Know basic concepts in sciences related to the earth and its atmosphere) can only be assessed by course grades, which is not recommended for Assessment Planning. However, we can and will expect that the content of their capstone portfolio (an assessment, discussed later) will be dominated by physical geography/science examples.

<https://catalog.ufl.edu/ugrad/current/liberalarts/alc/geography-ba.aspx>

<https://catalog.ufl.edu/ugrad/current/liberalarts/alc/geography-bs.aspx>

Once the elimination of one SLO is approved, the SLOs common to both the B.A. and B.S. will be:

CONTENT

1. Identify, describe and define the earth's physical environment and geographic perspectives regarding the relationship between environment and society.
2. Identify and examine the social, cultural and economic concepts from spatial and regional perspectives.
3. Identify and use geographic techniques, skills and concepts are applied by professionals.

CRITICAL THINKING

4. Analyze geographic information and apply interpretation of data toward problem solving or modeling.

COMMUNICATION

5. Interpret and effectively communicate information spatially, graphically and/or with statistics.

Curriculum Map

Program: Geography BA and BS (CIP 45.0701)

College: Liberal Arts and Sciences

Key: Introuced

Reinforced

Assessed

Courses SLOs	GEO 2200	GEO 2200L	Human Geog. GEO 2000- level	Regional Geog. GEA2000- 4000 level	STA2023	GEO3162C	GIS 3043 or GIS 4001C	Other degree rqmts. *	GEO 4930
Content Knowledge									
#1 Identify, describe and define the earth's physical environment and geographic perspectives regarding the relationship between environment and society.	I	R		R				R	A1
#2 Identify and examine the social, cultural and economic concepts from spatial and regional perspectives.			I	R				R	A1
#3 Identify and use geographic techniques, skills and concepts are applied by professionals.						I	R	R	R, A1
Critical Thinking									
#4 Analyze geographic information and apply interpretation of data toward problem solving or modeling.						I	R	R	A2*
Communication									
#5 Interpret and effectively communicate information spatially, graphically and/or with statistics					I	R	R	R	A2*

Legend: **A1**: Capstone Exam with questions contributed from multiple faculty, assessing knowledge in four areas: 1) Physical Geography, 2) Human Geography; 3) Statistics and Quantitative Analysis; and 4) Geospatial Technologies; **A2***(not yet approved): Capstone Portfolio; *BA students take 15 or more additional credits in the department and BS students take 12 additional credits in the department plus 22 credits outside the department (CHM, PHY, MET, GLY, SWS). These reinforce other learning outcomes in geography and teach basic concepts related to the earth and its atmosphere.

Assessment Cycle

Program: Geography BA and BS (CIP 45.0701)

College: Liberal Arts and Sciences

Analysis and Interpretation:

May-August

Improvement Actions:

Completed by September 15

Dissemination:

Completed by October 15

Year SLOs	10-11	11-12	12-13	13-14	14-15	15-16
Content Knowledge						
#1	X	X	X	X	X	X
#2	X	X	X	X	X	X
#3	X	X	X	X	X	X
Critical Thinking						
#4	No data collected	No data collected	X	X	X	X
Communication						
#5	No data collected	No data collected	X	X	X	X

Methods and Procedures

SLO Assessment Matrix

The SLO Assessment Matrix is new for the 2012-13 Academic Assessment Plans. We have populated the matrix to the extent possible with the information we have available. Please complete the matrix.

Assessment Method - For each SLO, please enter the assessment method you are using – exam (course, internal, or external), project, paper, presentation, performance, etc.

Measurement – list the measurement procedure you use for this outcome. It can be a faculty-developed rubric with the minimum acceptable level identified, an exam score and the minimum passing score, or other measurement. **Required for 2012-13: Include at least one example of a rubric used to assess an SLO.**

SLO Assessment Matrix for 2012-13

2012-13 Student Learning Outcome	Assessment Method	Measurement Procedure
Identify, describe and define the earth's physical environment and geographic perspectives regarding the relationship between environment and society.	Capstone exam	Exam score
Identify and examine the social, cultural and economic concepts from spatial and regional perspectives.	Capstone exam	Exam score
Identify and use geographic techniques, skills and concepts are applied by professionals.	Capstone exam	Exam score
Analyze geographic information and apply interpretation of data toward problem solving or modeling.	Capstone portfolio	Rubric
Interpret and effectively communicate information spatially, graphically and/or with statistics.	Capstone portfolio	Rubric

Our assessment will have two direct components which tie to our Student Learning Outcomes. Both are assessed in GEO 4930 Senior Seminar, a required departmental-permission course for all geography majors that students can take once they have attained 4LS status. Because we are a discovered major, with only few first-year and sophomore students, and a large proportion of juniors and seniors, an entry-to-exit exam comparison is of questionable validity (many students declare after they have taken several courses in our department). As such, we assess only after students have achieved 4LS or Senior status.

The first assessment is a Capstone Exam which is divided into four parts, Physical Geography, Human Geography, Geospatial Technologies and Quantitative Methods; each section has ten

multiple choice questions and the results can be evaluated to assess whether students perform well or poorly on different sections. Questions were developed by multiple geography faculty members, whose teaching and expertise falls within the areas tested. The exam is administered by the instructor of Senior Seminar (also the Undergraduate Coordinator, and Chair of the Undergraduate Student Learning Outcomes (UGSLO) Committee). Results of this exam are part of all students' Senior Seminar grade, are compiled by the Undergraduate Coordinator and reviewed by the UGSLO Committee for feedback into the program. The exam was recently modified into four sections to facilitate learning about which topics require more reinforcement.

The second assessment is a Capstone Portfolio, consisting of items demonstrating specific critical thinking and communication skills; it is being planned for implementation starting Fall 2012. Three of our required upper division classes (GEO3162C Introduction to Quantitative Analysis for Geographers; GIS3043 Foundations of Geographic Information Systems, and one optional) are techniques classes. These courses involve projects, in which students analyze geographic information and interpret data toward problem solving or modeling. There are also several other upper division courses in which students do projects, papers and presentations supported by graphs, statistics and maps. Instead of having diverse faculty separate out majors from non-majors in these classes, and submit grades to the Chair of the UGSLO Committee, we plan to implement a new requirement for the student to keep, compile and synthesize their best academic work into a portfolio which will then be graded by a rubric developed and reviewed by the UGSLO committee. The rubric will be part of the GEO 4930 Senior Seminar syllabus, so students have a clear understanding of the requirements and expectations. In coming semesters, the department chair will request that all instructors of courses involving data analysis and communication have statements on their syllabi regarding maintaining data files and work products for the Capstone Portfolio. Once approved, official announcements of the new Capstone Portfolio requirement will also be sent out biannually to majors on the list-serves, announced at meetings of Faculty and TAs, and added to our web page. The Capstone Portfolio will be part of their Senior Seminar grade; grades will be compiled by the Undergraduate Coordinator and the rubric and portfolios will be reviewed by the UGSLO Committee for feedback into the program.

Below is the current rubric for the Capstone Portfolio, an assessment to be implemented for the first time in AY 2012-2013. It has five criteria including organization, rigor, originality, visual communication and written communication. Communication skills are included in the organization, written and visual communication sections. Critical thinking skills are assessed in all five criteria. This has had some preliminary faculty and student feedback, but may later be revised.

Criteria & Ranking	3	2	1
Organization (structured with title, contents and overview; ties to communication and critical thinking; transitions)	Clear structure, order, transitions and ties to communication and critical thinking learning outcomes	Mostly clear structure, order, transitions and ties to communication and critical thinking learning outcomes.	Structure, order, transitions and ties to communication and critical thinking learning outcomes mostly not clear
Originality (creativity and unique compilation, contribution or analysis)	Work samples have considerable originality and creativity in the type of study, compilation, analysis	Work samples have some originality and creativity in the type of study, compilation, analysis	Work samples have minimal originality and creativity in the type of study, compilation, analysis
Rigor (complex, ambitious, provocative or challenging)	Portfolio includes works that show considerable challenge in collection, production and/or analysis of data	Portfolio includes works that show some challenge in collection, production and/or analysis of data	Portfolio includes works that show minimal challenge in collection, production and/or analysis of data
Visual Communication (graph axis labels and units; map elements, i.e. scale, direction, feature labels, inset, location info; appropriate use of color, tones, symbols, line weights, fonts, legend, etc.)	Work includes all the relevant elements of graphs and maps and appropriate use of color, tones, symbols, line weights, fonts, legend, etc.)	Work includes most of the relevant elements of graphs and maps and appropriate use of color, tones, symbols, line weights, fonts, legend, etc.)	Work includes few of the relevant elements of graphs and maps and appropriate use of color, tones, symbols, line weights, fonts, legend, etc.)
Written Communication (writing style, mechanics, structure, components, interpretation, documentation)	Writing style is clear, complete, well-structured and logical, free of grammatical and spelling errors, interprets sources and data accurately, thoroughly analyzes issues and justifies arguments and documents sources extensively and appropriately	Writing style is mostly clear, complete, structured and logical, has some grammatical and spelling errors, mostly interprets sources and data accurately, usually analyzes issues, mostly justifies arguments and documents sources appropriately.	Writing style is unclear, incomplete, disorganized, includes numerous grammatical and spelling errors, often misinterprets sources and data, rarely analyzes issues and justifies arguments, and has inadequate documentation

Although BA and BS students typically take different coursework in the process of obtaining their respective degrees, notably 21 hours of coursework in science foundations for BS students, there are no differences in assessments as described in this Academic Assessment Plan. We do expect that the Capstone Portfolio for BS students would have dominantly physical geography content.

As for indirect assessments, this is more difficult to ascertain across-the-board. Geography has no licensure exam. Internships are optional and some students choose to do them (either for or not for credit). We have had very positive feedback of our program through formal and informal measures. Some of our students have received many honors, and prestigious internships; we have some records of these, especially for recent graduates. Our records of job and graduate school placement for the past several years include data for most recent graduates; we plan to continue to maintain this information. For example, the statistics of what we have compiled for recent graduates is below. Employers seem quite satisfied with our majors because those hired write and tell us of open positions for which their bosses are looking for others from our program.

Summary of B.A./B.S. Graduate Placement 2009-2011	Number
Number graduated (2009-2011)	91
Academic: Graduate or Professional School	17
Geospatial Work (geospatial engineer, GIS analyst, field/GIS Technician, GIS Intern)	17
Government (terrorism analyst, water management)	2
Education (teaching or coaching)	2
NGO (non-governmental organizations, including Peace Corps, wildlife conservation)	3
Military (All 2 nd Lieutenants: pilots, navigators, infantry, etc.)	7
Business Owner/Real Estate/Retail/Banking	10
Recreation (white-water rafting guide, outdoor education, ski instructor)	3
Unknown	30

Assessment Oversight

Because our field does not have professional certification, our students are doing well professionally, and faculty are tasked with many other academic matters, assessing student learning outcomes is discussed infrequently at meetings of the UGSLO committee and at departmental faculty meetings. The Undergraduate Coordinator, Joann Mossa (mossa@ufl.edu) is Chair of the UGSLO Committee and is charged with the responsibility of assessment oversight, compiling data, and facilitating committee reviews. As needed, she compiles draft materials regarding the assessment and communicates with the Department Chair, Michael Binford (mbinford@ufl.edu) to get appropriate feedback. She has appointed a committee to assist in review of the annual data. Currently, the UGSLO Committee includes four members representing the four areas tested: Mossa (Chair, also represents Physical Geography), Barbara McDade-Gordon (bmcdade@ufl.edu; Human Geography), Youliang Qiu (yqiu@ufl.edu; Geospatial Technologies) and Timothy Fik (fik@ufl.edu; Statistics/Quantitative Methods).

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