

Proposal to the Senate Educational Policy Committee

- **PROPOSAL TITLE:** Revise Existing Bachelor of Arts (BALAS) in Geography and Geographic Information Science within the Department of Geography and GIS, College of Liberal Arts and Sciences
- **SPONSOR:** Julie Cidell, Associate Professor, Department of Geography and GIS: jcidell@illinois.edu, 244-4665.
- **COLLEGE CONTACT**: Kelly Ritter, Associate Dean for Curricula and Academic Policy, College of Liberal Arts and Sciences, ritterk@illinois.edu, 333-1350
- **BRIEF DESCRIPTION:** The undergraduate degree in Geography and GIS is currently a BALAS with four concentrations. We are proposing to maintain two concentrations under the BALAS (General Geography and Human Geography) and move two concentrations to a new degree, a BSLAS (Geographic Information Science and Physical Geography), which we submit in a separate, but connected, proposal.
- **JUSTIFICATION:** We currently offer four concentrations in our BALAS.: General Geography, Human Geography, Physical Geography, and Geographic Information Science. As a federally-designated STEM field (CIP Code 45.0702), geographic information science (GIS) is more suited to a B.S. degree than a B.A. Similarly, physical geography is a physical science, and similar majors on campus such as NRES, Geology, and ESES offer B.S. degrees. Discussions with current and potential majors have indicated that they are reluctant to choose a science major as a B.A. degree because of their perception that it will not be as valuable to future employers as a B.S. degree. Similarly, certain opportunities exist for students in STEM disciplines (for example, programs for women in STEM) that are not currently available to Geography & GIS majors due to the lack of a B.S. degree. Moreover, for international students, a STEM degree offers enhanced employment and visa possibilities. We therefore anticipate that moving our GIS and physical geography concentrations to a new BSLAS degree would more accurately reflect the nature of these degree programs. As an inherently interdisciplinary discipline, geography includes both social and physical sciences, and we will continue to require courses in both from our majors. We are not proposing changes in the BALAS degree requirements, only moving the geographic information science or physical geography tracks of the existing Geography & GIS to a separate, new BSLAS degree.

(Note: we surveyed the geography departments of 25 major state universities across the U.S. and 6 state universities within Illinois. Of these, 18 offer both a B.A. and B.S., and all but one have the same degree name for both. We therefore would like to keep the name of the degree as "Geography and Geographic Information Science" for both the B.A. and the B.S., in keeping with common practice in our discipline.)

BUDGETARY AND STAFF IMPLICATIONS:

1) Resources

- a. How does the unit intend to financially support this proposal? We will support this proposal with our existing resources, as we are merely moving two of our existing concentrations in the BALAS to a new degree designated as BALAS.
 - b. How will the unit create capacity or surplus to appropriately resource this program? If applicable, what functions or programs will the unit no longer support to create capacity?

We will support this proposal with our existing resources, as we are merely moving two of our existing concentrations in the BALAS to a new degree designated as BALAS.

- c. Will the unit need to seek campus or other external resources? The Department does not need additional campus or other external resources.
 - d. Please provide a letter of acknowledgment from the college that outlines the financial arrangements for the proposed program.

There will be no financial arrangements from the College of LAS needed for this revision of the degree.

2) Resource Implications

- a. Please address the impact on faculty resources including the changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc. We will support this proposal with our existing resources, as we are merely moving two of our existing concentrations in the BALAS to a new degree designated as BALAS.
- b. Please address the impact on course enrollment in other units and provide an explanation of discussions with representatives of those units.

 There are no anticipated impacts on course enrollment in other units.

c. Please address the impact on the University Library

N/A

d. Please address the impact on technology and space (e.g. computer use, laboratory use, equipment, etc.)

None.

DESIRED EFFECTIVE DATE: Fall 2018

STATEMENT FOR ACADEMIC CATALOG for BALAS (no change in requirements, removing 2 concentrations from the current BALAS)

BALAS in Geography and Geographic Information Science

BALAS in Geography and Geographic Information Science is designed for students who are most interested in the social science side of geography. Students must choose one concentration: General Geography or Human Geography.

General Geography Concentration

For the Degree of Bachelor of Arts in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geography@illinois.edu

A minimum of 35 credit hours of Geography and Geographic Information Science courses are required for the major.

General education: Students must complete the <u>Campus General Education</u> requirements including the campus general education language requirement.

Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

A Major Plan of Study Form must be completed and submitted to the LAS Student Affairs Office before the end of the fifth semester (60-75 hours). Please see your advisor.

Minimum hours required for graduation: 120 hours

Departmental distinction: Students majoring in Geography and Geographic Information Science can earn distinction, high distinction, and highest distinction upon graduation. The requirements for these awards are:

For distinction: 3.3 GPA overall; 3.3 GPA in GGIS courses.

For high distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses.

For highest distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses; satisfactorily complete an independent project (GEOG 391).

		Hours
Geography and Geographic	Information Science Core Requirements	
Select one of the following:		3-4
ATMS/GEOG 100	Introduction to Meteorology	
GEOG 103	Earth's Physical Systems	
GEOG 222	Big Rivers of the World	
Select one of the following:		3-4

		Hours
<u>GEOG 101</u>	Global Development&Environment	
<u>GEOG 104</u>	Social and Cultural Geography	
<u>GEOG 105</u>	The Digital Earth	
<u>GEOG 106</u>	Geographies of Globalization	
GEOG 210	Social & Environmental Issues	
GEOG 221	Geographies of Global Conflict	
Select one of the following:		4
<u>GEOG 371</u>	Spatial Analysis	
GEOG 379 Intro to GIS Systems		
General Geography Concentration Requirements		
Geography and Geographic Information Science courses, selected from 200- to 400-level courses, of which 6 hours must be at the 300 or 400 level		
Total Hours		

Human Geography Concentration

For the Degree of Bachelor of Arts in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geograph@illinois.edu

A minimum of 35 credit hours of Geography and Geographic Information Science courses are required for the major.

General education: Students must complete the <u>Campus General Education</u> requirements including the campus general education language requirement.

Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

A Major Plan of Study Form must be completed and submitted to the LAS Student Affairs Office before the end of the fifth semester (60-75 hours). Please see your advisor.

Minimum hours required for graduation: 120 hours

Departmental distinction: Students majoring in Geography and Geographic Information Science can earn distinction, high distinction, and highest distinction upon graduation. The requirements for these awards are:

For distinction: 3.3 GPA overall; 3.3 GPA in GGIS courses.

For high distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses.

For highest distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses; satisfactorily complete an independent project (GEOG 391).

		Hours
Geography and Geograph	nic Information Science Core Requirements	
Select one of the following	:	3-4
ATMS/GEOG 100	Introduction to Meteorology	
GEOG 103	Earth's Physical Systems	
GEOG 222	Big Rivers of the World	
Select one of the following	:	3-4
GEOG 101	Global Development&Environment	
<u>GEOG 104</u>	Social and Cultural Geography	
GEOG 105	The Digital Earth	
GEOG 106	Geographies of Globalization	
GEOG 210	Social & Environmental Issues	
GEOG 221	Geographies of Global Conflict	
Select one of the following	:	4
GEOG 371	Spatial Analysis	
GEOG 379	Intro to GIS Systems	
Human Geography Conc	entration Requirements	
	y and Geographic Information Science courses (of which at least 6 400 level) selected from the following:	25-27
<u>GEOG 204</u>	Cities of the World	
GEOG 205	Business Location Decisions	
GEOG 210	Social & Environmental Issues	
GEOG 215	Resource Conflicts	
GEOG 224	Geog Patterns of Illinois	
SOC 280	Intro to Social Statistics	
NRES/GEOG 287	Environment and Society	
GEOG 310	Political Geography	
<u>GEOG 350</u>	Sustainability and the City	
<u>GEOG 356</u>	Sustainable Development in South Asia	
ESE 320/GEOG 370	Water Planet, Water Crisis	
GEOG 371	Spatial Analysis	
<u>GEOG 373</u>	Geography Field Course	
GEOG 381	Environmental Perspectives	
GEOG 384	Population Geography	
GEOG 390	Individual Study	
GEOG 391	Honors Individual Study	
GEOG 394	Special Topics Social Geog	
GEOG 410	Green Development	
GEOG 412	Geospatial Tech & Society	
LA 427	Amer Vernacular Cultural Land	
GEOG 438	Geography of Health Care	

		Hours
PATH/GEOG 439	Health Applications of GIS	
<u>UP/GEOG 446</u>	Sustainable Planning Seminar	
<u>GEOG 455</u>	Geog of Sub-Saharn Africa	
<u>GEOG 465</u>	Transp and Sustainability	
<u>GEOG 466</u>	Environmental Policy	
<u>GEOG 471</u>	Recent Trends in Geog Thought	
<u>GEOG 473</u>	Digital Cartography & Map Design	
<u>GEOG 477</u>	Introduction to Remote Sensing	
<u>GEOG 481</u>	Intl Environ Cooperation	
ESE/GEOG 482	Challenges of Sustainability	
GEOG 483	Urban Geography	
GEOG 493	Democracy and Environment	
GEOG 496	Climate & Social Vulnerability	
Total Hours		35-39

CLEARANCES:	
Signatures:	
Unit Representative:	September 21, 2017 Date:
•	Date.
Kelly Righ	February 7, 2018
College Representative:	Date:

Appendix A Comparative Table of Proposed Revisions

Current Degree	Current Hours	Proposed Degree	Proposed Hours
BALAS in		BALAS in	
Geography and		Geography and	
Geographic		Geographic	
Information Science-		Information Science-	
Students choose one		Students choose one	
of the following four		of the following two	
concentrations:		concentrations:	
General Geography	35-39 hours	General Geography	35-39 hours
Concentration		Concentration	
Human Geography	35-39 hours	Human Geography	35-39 hours
Concentration		Concentration	
Geographic	36-42 hours		
Information Science			
Concentration			
Physical Geography	47-53 hours		
Concentration			

Appendix B

Entries for Overview and Major tab in the Academic Catalog for the Department of Geography and Geographic Information Science

Overview Tab for the Department of Geography and Geographic Information Science

Shaowen Wang, Department Head 2042 Natural History Building 1301 W. Green Street Urbana, IL 61801 PH: (217) 333-1880

http://geog.illinois.edu

The Department of Geography and Geographic Information Science offers two undergraduate majors in keeping with the interdisciplinary nature of the discipline of geography, incorporating physical science, social science, and technology.

BALAS in Geography and Geographic Information Science is designed for students who are most interested in the social science side of geography. Students must choose one concentration: General Geography or Human Geography.

The <u>General Geography</u> concentration allows students to integrate social science, physical science, and technology in their study of how humans use the Earth's surface. Majors in the General Geography concentration can sample courses from different subfields of geography without having to choose one specialty of the discipline. Upon completion, the students are prepared for diverse employment opportunities, or further studies in a geography graduate program.

The <u>Human Geography</u> concentration allows students to specialize in the social science aspect of modern geography. The curriculum includes the systematic study of human social organization and its environmental consequences. Employment opportunities for human geographers include urban and regional planning, transportation, marketing, real estate, tourism, and international business.

BSLAS in Geography and Geographic Information Science is designed for students who are most interested in the physical science and/or technological side of geography. Students must choose one concentration: Geographic Information Science or Physical Science.

The Geographic Information Science (GIS) concentration emphasizes the creation, use and analysis of digital geographic information to examine economic, environmental, physical and social phenomena. The GIS concentration provides students with in-depth training in contemporary software packages to prepare them for careers in the field. There is growing demand for professional knowledge of the earth's systems and the use of geographic information systems to enhance business, protect the environment and

manage the massive amounts of spatial data now widely available on the internet. The U.S. Department of Labor has identified geospatial technologies as one of the fastest-growing domestic job sectors.

The <u>Physical Geography</u> concentration examines the earth sciences including patterns of climates, land-forms, vegetation, soils, and water. Graduates of our physical geography concentration will be equipped for careers in infrastructure development, land and water resources management, and surveying.

The department also offers a **minor in Geography & GIS** that exposes students to a comprehensive selection of courses embracing our three broad areas of study: human geography, physical/environmental geography, and geographic information science.

Majors Tab

For the Degree of Bachelor of Science in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geography@illinois.edu

Students select one concentration in consultation with our academic advisor. Email: ggisadvisor@illinois.edu.

- Geographic Information Science Concentration
- Physical Geography Concentration

For the Degree of Bachelor of Arts in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geography@illinois.edu

Students select one concentration in consultation with our academic advisor. Email: ggisadvisor@illinois.edu.

- General Geography Concentration
- Human Geography Concentration



Proposal to the Senate Educational Policy Committee

- **PROPOSAL TITLE:** Establish A New Bachelor of Science in Liberal Arts and Sciences (BSLAS) in Geography and Geographic Information Science in the Department of Geography and GIS, College of Liberal Arts and Sciences
- **SPONSOR:** Julie Cidell, Associate Professor, Department of Geography and GIS: jcidell@illinois.edu, 244-4665.
- **COLLEGE CONTACT**: Kelly Ritter, Associate Dean for Curricula and Academic Policy, College of Liberal Arts and Sciences, ritterk@illinois.edu, 333-1350
- **BRIEF DESCRIPTION:** The undergraduate degree in Geography and GIS is currently a B.A. with four concentrations. We are proposing to maintain two concentrations under the B.A. (General Geography and Human Geography) and move two concentrations to a new B.S. degree (Geographic Information Science and Physical Geography).
- **JUSTIFICATION:** We currently offer four concentrations in our B.A.: General Geography, Human Geography, Physical Geography, and Geographic Information Science. As a federally-designated STEM field (CIP Code 45.0702), geographic information science (GIS) is more suited to a B.S. degree than a B.A. Similarly, physical geography is a physical science, and similar majors on campus such as NRES, Geology, and ESES offer B.S. degrees. Discussions with current and potential majors have indicated that they are reluctant to choose a science major as a B.A. degree because of their perception that it will not be as valuable to future employers as a B.S. degree. Similarly, certain opportunities exist for students in STEM disciplines (for example, programs for women in STEM) that are not currently available to Geography & GIS majors due to the lack of a B.S. degree. Moreover, for international students, a STEM degree offers enhanced employment and visa possibilities. We therefore anticipate that moving our GIS and physical geography concentrations to a new B.S. degree would increase our majors in both, making better use of existing resources within our department and college. General degree requirements remain the same; we are proposing only the designation of the degree as a Bachelor's of Science instead of a Bachelor's of Arts for students who complete the Geographic Information Science or Physical Geography concentrations of the existing Geography & Geographic Information Science degree.

BUDGETARY AND STAFF IMPLICATIONS:

1) Resources

- a. How does the unit intend to financially support this proposal? We will support this proposal with our existing resources, as we are merely moving two of our existing concentrations in the B.A. to a new degree designated as B.S.
 - b. How will the unit create capacity or surplus to appropriately resource this program? If applicable, what functions or programs will the unit no longer support to create capacity?

Currently, we have capacity in our GIS and physical geography classes to accommodate additional students if enrollment increases.

- c. Will the unit need to seek campus or other external resources? Not at this time.
- d. Please provide a letter of acknowledgment from the college that outlines the financial arrangements for the proposed program.
 No financial arrangements are necessary.

2) Resource Implications

a. Please address the impact on faculty resources including the changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc.

We do not anticipate a need for new faculty resources as we are moving existing concentrations to their own major. Should we experience an increase in majors as a result, we currently have excess capacity in most of our physical geography and GIS classes. Upper-division GIS classes may be limited to majors if it becomes necessary, as other departments do.

b. Please address the impact on course enrollment in other units and provide an explanation of discussions with representatives of those units.

There are no anticipated impacts on course enrollment in other units.

- c. Please address the impact on the University Library There are no anticipated impacts on the University Library.
 - d. Please address the impact on technology and space (e.g. computer use, laboratory use, equipment, etc.)

The renovated Natural History Building includes new lab space for both physical geography and GIS courses. There is also a computer lab for majors to use in completing homework assignments or working on projects. These spaces should suffice for existing and additional majors.

For new degree programs only:

3) Briefly describe how this program will support the University's mission, focus, and/or current priorities. Include specific objectives and measurable outcomes that demonstrate the program's consistency with and centrality to that mission.

As we are moving existing concentrations to a new major, we anticipate no changes in how this program fits the University's mission and focus. By creating a B.S. degree, we are supporting the University's current priority of promoting STEM research and training, and enhancing education in sustainability, energy, and the environment for both our physical geography and geographic information science students.

4) Please provide an analysis of the market demand for this degree program. What market indicators are driving this proposal? What type of employment outlook should these graduates expect? What resources will be provided to assist students with job placement?

The Bureau of Labor Statistics estimates that Cartography & Photogrammetry (the closest category to Geographic Information Science) is expected to grow at 29% per year, more than double the rate of computer and information technology occupations more broadly. The use of GIS is rapidly growing within fields from health care to natural resource management to marketing. Similarly, while there is no BLS category for Physical Geography, Environmental Scientists, Geoscientists, and Hydrologists, all of which are careers our B.S. degree would prepare students for, are expected to see job growth at above average rates. Students have expressed their concern to us that a B.A. in GIS is not as attractive to potential employers in these science fields as a B.S., which is one of our main reasons for proposing this new degree. Our resources for job and internship placement include faculty advising, reaching out to alumni, and workshops conducted with the Career Center.

5) If this is a proposed graduate program, please discuss the programs intended use of waivers. If the program is dependent on waivers, how will the unit compensate for lost tuition revenue?

N/A

DESIRED EFFECTIVE DATE: Fall 2018

STATEMENT FOR PROGRAMS OF STUDY CATALOG: (All proposals must include either a new or revised version of the entry in the Programs of Study Catalog, if applicable. Entries will be published as approved by the Senate. Future changes in the statement for Programs of Study Catalog which reflect changes in the curriculum, must go through the normal review process at the appropriate levels.)

The description of the Physical Geography and GIS concentrations will not change from the existing ones except to say "Bachelor of Science" instead of "Bachelor of Arts".

STATEMENT FOR ACADEMIC CATALOG for BSLAS:

BSLAS in Geography and Geographic Information Science

BSLAS in Geography and Geographic Information Science is designed for students who are most interested in the physical science and/or technological side of geography. Students must choose one concentration: Geographic Information Science or Physical Geography.

Geographic Information Science Concentration

For the Degree of Bachelor of Science in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geography@illinois.edu

A minimum of 36 credit hours of Geography and Geographic Information Science courses are required for the major.

General education: Students must complete the <u>Campus General Education</u> requirements including the campus general education language requirement.

Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

A Major Plan of Study Form must be completed and submitted to the LAS Student Affairs Office before the end of the fifth semester (60-75 hours). Please see your advisor.

Minimum hours required for graduation: 120 hours

Departmental distinction: Students majoring in Geography and Geographic Information Science can earn distinction, high distinction, and highest distinction upon graduation. The requirements for these awards are:

For distinction: 3.3 GPA overall; 3.3 GPA in GGIS courses.

For high distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses.

For highest distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses; satisfactorily complete an independent project (GEOG 391).

		Hours
Geography and Geographic Information Science Core Requirements		
Select one of the following:		3-4
ATMS/GEOG 100	Introduction to Meteorology	
<u>GEOG 103</u>	Earth's Physical Systems	
GEOG 222	Big Rivers of the World	

		Hours
Select one of the following:		3-4
<u>GEOG 101</u>	Global Development&Environment	
<u>GEOG 104</u>	Social and Cultural Geography	
<u>GEOG 105</u>	The Digital Earth	
<u>GEOG 106</u>	Geographies of Globalization	
GEOG 210	Social & Environmental Issues	
<u>GEOG 221</u>	Geographies of Global Conflict	
GEOG 379	Intro to GIS Systems	4
Geographic Information Science (Concentration Requirements	
GEOG 371	Spatial Analysis	4
GEOG 380	GIS II: Spatial Prob Solving	4
Select one of the following courses:		3
<u>CS 105</u>	Intro Computing: Non-Tech	
<u>CS 125</u>	Intro to Computer Science	
or equivalent course approved by the Department's Advisor		
Select a minimum of three courses from the following:		9-11
GEOG 205	Business Location Decisions	
SOC 280	Intro to Social Statistics	
GEOG 412	Geospatial Tech & Society	
ATMS/GEOG 421	Earth Systems Modeling	
PATH/GEOG 439	Health Applications of GIS	
GEOG 460	Aerial Photo Analysis	
GEOG 468	Biological Modeling	
GEOG 473	Digital Cartography & Map Design	
GEOG 476	Applied GIS to Environ Studies	
GEOG 477	Introduction to Remote Sensing	
GEOG 478	Techniques of Remote Sensing	
GEOG 479	Advanced Topics in GIS	
GEOG 480	Principles of GIS	
GEOG 489	Programming for GIS	
Select two additional Geography and Geographic Information Science courses from the Human Geography Concentration and/or Physical Geography Concentration course lists		6-8
Total Hours 36		

Physical Geography Concentration

For the Degree of Bachelor of Science in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geograph@illinois.edu

A minimum of 35 credit hours of Geography and Geographic Information Science courses are required for the major.

General education: Students must complete the <u>Campus General Education</u> requirements including the campus general education language requirement.

Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

A Major Plan of Study Form must be completed and submitted to the LAS Student Affairs Office before the end of the fifth semester (60-75 hours). Please see your advisor.

Minimum hours required for graduation: 120 hours

Departmental distinction: Students majoring in Geography and Geographic Information Science can earn distinction, high distinction, and highest distinction upon graduation. The requirements for these awards are:

For distinction: 3.3 GPA overall; 3.3 GPA in GGIS courses.

For high distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses.

For highest distinction: 3.3 GPA overall; 3.75 GPA in GGIS courses; satisfactorily complete an independent project (GEOG 391).

		Hours
Geography and Geographic Information Science Core Requirements:		
Select one of the following:		
ATMS 100	Introduction to Meteorology	
GEOG 103	Earth's Physical Systems	
GEOG 222	Big Rivers of the World	
Select one of the following:		3-4
GEOG 101	Global Development & Environment	
GEOG 104	Social and Cultural Geography	
GEOG 105	The Digital Earth	
GEOG 106	Geographies of Globalization	
GEOG 210	Social & Environmental Issues	
GEOG 221	Geographies of Global Conflict	
Select one of the following:		4
GEOG 371	Spatial Analysis	
GEOG 379	Intro to GIS Systems	
Physical Geography Concentration Requirements:		
200- to 400-level Geography and Geographic Information Science courses (of which at least 6 hours must be at the 300 or 400 level) selected from the following:		
GEOG 210	Social & Environmental Issues	
GEOG 222	Big Rivers of the World	
ESE 320/GEOG 370	Water Planet, Water Crisis	
NRES/GEOG 287	Environment and Society	

		Hours
GEOG 371	Spatial Analysis	
<u>GEOG 373</u>	Geography Field Course	
GEOG 381	Environmental Perspectives	
GEOG 390	Individual Study	
GEOG 391	Honors Individual Study	
NRES/GEOG 401	Watershed Hydrology	
GEOG 406	Fluvial Geomorphology	
GEOG 408	Humans and River Systems	
GEOG 412	Geospatial Tech & Society	
ATMS/GEOG 421	Earth Systems Modeling	
IB 439/GEOG 436	Biogeography	
GEOG 460	Aerial Photo Analysis	
GEOG 468	Biological Modeling	
GEOG 471	Recent Trends in Geog Thought	
GEOG 473	Digital Cartography & Map Design	
GEOG 476	Applied GIS to Environ Studies	
GEOG 477	Introduction to Remote Sensing	
GEOG 478	Techniques of Remote Sensing	
GEOG 481	Intl Environ Cooperation	
MATH 220	Calculus	4-5
or <u>MATH 221</u>	Calculus I	
PHYS 101	College Physics: Mech & Heat	4-5
or <u>PHYS 211</u>	University Physics: Mechanics	
Select one of the following:		4
CHEM 102 & CHEM 103	General Chemistry I and General Chemistry Lab I	
CHEM 104 & CHEM 105	General Chemistry II and General Chemistry Lab II	
Total Hours		47-53

CLEARANCES: (Clearances should include signatures and dates of approval. **These signatures must appear on a separate sheet.** If multiple departments or colleges are sponsoring the proposal, please add the appropriate signature lines below.)

Signatures:	
Unit Representative:	<u>September 21, 2017</u> Date:
Kelly Right	<u>February 12, 2018</u>
College Representative:	Date:
Graduate College Representative:	Date:
Council on Teacher Education Representative:	Date:

Appendix A: (Proposed Curriculum Revisions)

Current	Current
Requirements:	Hours
BALAS in	
Geography and	
GIS—four	
concentrations:	
General Geography	35-39 Hours
concentration	
Human Geography	35-39 Hours
concentration	
Physical Geography	47-53 Hours
concentration	
Geographic	36-42 Hours
Information Science	
concentration	

Revised Requirements:			
BALAS in		BSLAS in	
Geography and		Geography and	
GIS—two		GIS—two	
concentrations:		concentrations:	
General Geography	35-39 Hours	Physical Geography	47-53 Hours
concentration		concentration	
Human Geography	35-39 Hours	Geographic	36-42 Hours
concentration		Information Science	
		concentration	

Appendix B

Entries for Overview and Major tab in the Academic Catalog for the Department of Geography and Geographic Information Science

Overview Tab for the Department of Geography and Geographic Information Science

Shaowen Wang, Department Head 2042 Natural History Building 1301 W. Green Street Urbana, IL 61801 PH: (217) 333-1880

http://geog.illinois.edu

The Department of Geography and Geographic Information Science offers two undergraduate majors in keeping with the interdisciplinary nature of the discipline of geography, incorporating physical science, social science, and technology.

BALAS in Geography and Geographic Information Science is designed for students who are most interested in the social science side of geography. Students must choose one concentration: General Geography or Human Geography.

The <u>General Geography</u> concentration allows students to integrate social science, physical science, and technology in their study of how humans use the Earth's surface. Majors in the General Geography concentration can sample courses from different subfields of geography without having to choose one specialty of the discipline. Upon completion, the students are prepared for diverse employment opportunities, or further studies in a geography graduate program.

The <u>Human Geography</u> concentration allows students to specialize in the social science aspect of modern geography. The curriculum includes the systematic study of human social organization and its environmental consequences. Employment opportunities for human geographers include urban and regional planning, transportation, marketing, real estate, tourism, and international business.

BSLAS in Geography and Geographic Information Science is designed for students who are most interested in the physical science and/or technological side of geography. Students must choose one concentration: Geographic Information Science or Physical Science.

The <u>Geographic Information Science (GIS)</u> concentration emphasizes the creation, use and analysis of digital geographic information to examine economic, environmental, physical and social phenomena. The GIS concentration provides students with in-depth training in contemporary software packages to prepare them for careers in the field. There is growing demand for professional knowledge of the earth's systems and the use of

geographic information systems to enhance business, protect the environment and manage the massive amounts of spatial data now widely available on the internet. The U.S. Department of Labor has identified geospatial technologies as one of the fastest-growing domestic job sectors.

The <u>Physical Geography</u> concentration examines the earth sciences including patterns of climates, land-forms, vegetation, soils, and water. Graduates of our physical geography concentration will be equipped for careers in infrastructure development, land and water resources management, and surveying.

The department also offers a **minor in Geography & GIS** that exposes students to a comprehensive selection of courses embracing our three broad areas of study: human geography, physical/environmental geography, and geographic information science.

Majors Tab

For the Degree of Bachelor of Science in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geography@illinois.edu

Students select one concentration in consultation with our academic advisor. Email: ggisadvisor@illinois.edu.

- Geographic Information Science Concentration
- Physical Geography Concentration

For the Degree of Bachelor of Arts in Liberal Arts and Sciences

Major in Sciences and Letters Curriculum

E-mail: geography@illinois.edu

Students select one concentration in consultation with our academic advisor. Email: ggisadvisor@illinois.edu.

- General Geography Concentration
- Human Geography Concentration

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

University Library
Office of University Librarian
and Dean of Libraries
230 Main Library, MC-522
1408 West Gregory Drive
Urbana, IL 61801



January 4, 2018

Kelly Ritter Associate Dean for Curricula and Academic Policy College of Liberal Arts and Sciences 702 South Wright St., MC – 448

Dear Prof. Ritter:

Shortly before break, the University Library received a proposal from LAS to establish a BSLAS in Geography and GIS by moving two existing concentrations from the current BALAS in Geography and GIS to the new BSLAS. The requirements of the concentrations were not changing.

Based upon the documents we received and reviewed, it is our belief that there will be no significant impact on collection development, instruction, or other operations in the University Library.

If additional services or materials are required as the programs further develop, we will be happy to discuss those needs as they emerge.

Sincerely,

William H. Mischo

Interim Dean of Libraries and University Librarian

With H. Mis de

e-c:

Amy Lawrence Elli

Beth Sheehan Thomas Teper James Whitacre Office of the Provost and Vice Chancellor for Academic Affairs

Swanlund Administration Building 601 East John Street Champaign, IL 61820



February 7, 2018

Gay Miller, Chair Senate Committee on Educational Policy Office of the Senate 228 English Building, MC-461

Dear Professor Miller:

Enclosed is a copy of a request from the College of Liberal Arts and Sciences to:

- 1) Revise the BALAS in Geography and Geographic Information Science (GIS);
- 2) Establish the BSLAS in Geography and GIS.

Sincerely,

Kathryn A. Martensen Assistant Provost

Enclosures

c: K. Ritter

J. Cidell

S. Wang

A Edwards

E. Stuby

A. Elli



COLLEGE OF LIBERAL ARTS & SCIENCES

Office of the Dean 2090 Lincoln Hall 702 S. Wright St. Urbana, IL 61801

February 7, 2018

Kathryn Martensen Associate Provost Office of the Provost and Vice Chancellor for Academic Affairs 207 Swanlund Administration Building MC-304

Dear Kathy:

The Committee on Courses and Curricula on behalf of the Faculty of the College of Liberal Arts and Sciences has voted to approve the following proposal:

Establish A BSLAS in Geography and GIS and Revise Existing BALAS in Geography and GIS within the Department of Geography and GIS, College of Liberal Arts and Sciences

This proposal is now ready for review by the Senate Educational Policy Committee for proposed implementation in Fall 2018.

Sincerely,

Kelly Ritter Associate Dean

Kelly Righ

enclosures

C: Professor Julie Cidell Professor Shaowen Wang