

MEMORANDUM

TO: James Mower, Senate Chair
FROM: Havidán Rodríguez, President
DATE: April 9, 2019
SUBJECT: Senate Bill Approval

I am pleased to approve the following Senate Bill, which was recommended following approval by the University Senate at its meeting of March 25, 2018:

Senate Bill 1819-13: PROPOSAL TO ESTABLISH A MINOR IN GEOGRAPHIC INFORMATION SCIENCE.

Approved: _____

Havidán Rodríguez, President

UNIVERSITY SENATE

UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

Introduced by: Undergraduate Academic Council
University Policy and Planning Council

Date: March 25, 2019

Proposal to Establish a Minor in Geographic Information Science

IT IS HEREBY PROPOSED THAT THE FOLLOWING BE ADOPTED:

1. That the University Senate approves the attached program proposal as submitted by the Department of Geography and Planning and approved by UAC and UPPC
2. That this takes effect for the Fall 2019 semester.
3. That this proposal be forwarded to President Havidán Rodríguez for approval.

University at Albany – State University of New York			
College of Arts and Sciences		Course and Program Action Form	
		Proposal No. <u>18-173</u>	
Please check one: <input type="checkbox"/> Course Proposal <input checked="" type="checkbox"/> Program Proposal			
Please mark all that apply:			
<input type="checkbox"/> New Course	Revision of:	<input type="checkbox"/> Number	<input type="checkbox"/> Description
<input type="checkbox"/> Cross-Listing		<input type="checkbox"/> Title	<input type="checkbox"/> Prerequisites
<input type="checkbox"/> Shared-Resources Course		<input type="checkbox"/> Credits	
<input type="checkbox"/> Deactivate/Activate Course (boldface & underline as appropriate)		<input checked="" type="checkbox"/> Other (specify):	Proposal for Minor in Geographic Information Science
Department: <u>Geography and Planning</u>		Effective Semester, Year: <u>Fall 2019</u>	
Course Number	Current: _____	New: _____	Credits: _____
Course Title: _____			
Course Description to appear in Bulletin: A minimum of 18 graduation credits (9 or more of which must be in coursework at or above the 300 level and/or in courses requiring at least one prerequisite course) including GOG106 and a minimum 15 credits from the following: GOG 290, 307, 360, 390, 406, 414, 422, 424, 427Y, 479, 484, 485, 496, 498 including their cross-listed courses with USP course numbers.			
Prerequisites statement to be appended to description in Bulletin: 			
If S/U is to be designated as the only grading system in the course, check <input type="checkbox"/>			
This course is (will be) cross listed with (i.e., CAS ###): _____			
This course is (will be) a shared-resources course with (i.e., CAS ###): _____			
Explanation of proposal: (Undergraduate Course/Program proposals: please address the effect on the department's General Education competency plan) Please see page 2.			
Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering: 			
<i>If this proposal is for an interdisciplinary program, please indicate the Department where the major/minor will be</i> 			
Chair of Proposing Department (TYPE NAME)		Administrative Manager or Department Secretary (TYPE NAME) Date	
Andrei G. Lapenas		Marcia A. Catrambone 11/07/18	
Approved by Chair(s) of Departments having cross-listed course(s) [Copy of e-mail approval(s) on following page.] Date		Dean of College Date	
		Kathleen Gersowitz 12/21/18	
Chair of Academic Programs Committee Date		Dean of Undergraduate or Graduate Studies Date	
Oliver Elison Timm 11/29/18			

Proposed Minor in Geographic Information Science

Motivation for the Minor

The Department of Geography and Planning proposes a new Minor in Geographic Information Science (GIS) to be housed within the department. The US Department of Labor's High Growth Industry Profile -- Geospatial Technology Report suggests that the job market's need of skilled GIS workers is "growing at an annual rate of almost 35%". This proposal aims to enable students at the undergraduate level across campus to learn essential skills of geospatial technology and prepare them for the growing needs in various job markets. At the same time, this minor also prepares students who aim to continue their educational pursuit in this discipline at the graduate level.

The department currently offers an Undergraduate Certificate in Geographic Information Systems. This certificate will be eventually phased out with the enrollment of students in the proposed minor.

Description of the Minor

The Minor in Geographic Information Science requires a minimum of 18 total credits. It will provide students with intensive practical and technical training in using different geospatial technologies including Spatial Analysis, Cartography, Remote Sensing, and Global Positioning Systems, as well as Geographic Information Systems.

Students will learn a host of methods and applications including spatial analysis, tracking, data mining, map making, spatial visualization, image analysis, and spatial statistics. They can then apply their learned skills in geospatial technologies into a broad range of environmental or societal problems, such as resource management, agriculture and forestry, environmental conservation, urban planning, disaster and emergency mapping, business market analysis, and urban social analysis. It will be of interest to many students regardless of whether they intend to enter the geospatial profession by providing spatial and analytical perspectives for understanding the relation between human and place.

In the classroom and laboratory, students will receive real examples of spatial information with keen connection to the university community and the capital region. Student will learn to investigate these issues by managing, mapping, querying, analyzing, and disseminating their findings to benefit the community and general public.

Students majoring in GOG (Geography), USP (Urban studies and planning), and GLO (globalization) are permitted to declare this minor. Credits earned in the following courses, however, can only count once for either the major or minor.

Required Course (3 credits)

- GOG/USP106 Introduction to Geospatial Technologies (3)

Elective Courses (minimum 15 credits from the following courses)

- GOG 290 Introduction to Cartography (4)
- GOG 307 Geospatial Applications of Drones
- GOG/USP 360 Introduction to Geographic Information Systems (3)
- GOG 390 Intermediate Cartography (3)
- GOG 406 Topics in Geographic Information Systems (3)
- GOG 414 Computer Mapping (3)

- GOG 422 GIS for Social Sciences (3)
- GOG 424 Landscape Ecology
- GOG/USP 427Y Human Factors in Geographic Information Science (3)
- GOG 479 Fundamentals of Applied Global Positioning Systems (3)
- GOG 484 Remote Sensing I (3)
- GOG 485 Remote Sensing II (3)
- GOG 496/USP456 Geographic Information Systems (3)
- GOG 498/USP457 Advanced GIS (3)

When submitting a program proposal to UPPC please submit this form to indicate the resource implications of the proposal.

Proposal Title: _____

College or School _____ **Department** _____

Program Director or Sponsor _____ **Email** _____

Action Category Program Proposal Does this proposal include any space resource implications? Yes
 Other (describe) Approx. sq. ft. needed: No

Action Type New Program has been identified as a **Gainful Employment Program (GEP)?** Yes
 Revision No
 Deactivation
 Other (describe)

Brief Description of Proposal: *(attach additional pages if necessary)* _____



Impact on Other Programs:

Is there an impact on other service units?

Yes

No

ITS

University Library

Scientific Core Facilities

Other services (i.e., parking, facilities, security),
please list: _____

If the answer to any of the questions listed above is **yes** has the proposer consulted with the affected service unit(s) and attached written verification (letters of collaboration/support) of such consultation?

Yes

No

Is there an impact on other academic programs?

Yes

No

If the answer to the question listed above is **yes** has the proposer consulted with the affected academic department(s) and attached written verification (letters of collaboration/support) of such consultation?

Yes

No

Faculty and Staff *(attach additional pages if necessary)*

(a) Describe new faculty hiring needed during the next 3 years

(b) Explain how program will be administered for the purposes of admissions, advising, course offerings, etc.

Discuss the available support staff. [↓](#)



Program Expenses

Program Expense Categories	Expenses (in dollars)					
	Before Start	Academic Year 1:	Academic Year 2:	Academic Year 3:	Academic Year 4:	Academic Year 5:
<i>(a) Personnel (including faculty and all others)</i>						
<i>(b) Library</i>						
<i>(c) Equipment</i>						
<i>(d) Laboratories</i>						
<i>(e) Supplies</i>						
<i>(f) Capital Expenses</i>						
<i>(g) Student stipends or scholarships</i>						
<i>(h) Other (specify):</i>						
Sum of Rows Above	\$	\$	\$	\$	\$	\$

APPROVALS

Department Chair _____
 Department Chair _____ Date _____

Dean _____
 Dean _____ Date _____

UPPC Chair _____
 UPPC Chair _____ Date _____

Completed forms should be sent to the chairperson of UPPC.
 It is the sponsoring department's responsibility to obtain all required signatures (with the exception of the chair of UPPC) before presenting the documentation to the council. The chair of UPPC may request additional supporting documentation prior to review by the entire council. You will be notified when the proposal is on the UPPC agenda and invited to attend the meeting.



UNIVERSITY AT ALBANY
State University of New York

**UNIVERSITY POLICY AND PLANNING COUNCIL
CAMPUS IMPACT FORM**