

ESTABLISHMENT OF A GRADUATE CERTIFICATE PROGRAM IN GEOGRAPHIC INFORMATION SCIENCES

Recommendation

It is recommended that the Board of Governors establish a new Graduate Certificate in Geographic Information Sciences (GIS) to be offered by the Department of Urban Studies and Planning (DUSP) in the College of Liberal Arts and Sciences (CLAS), effective Fall 2022.

Background

Advances in technology and analytic tools have made Geographic Information Sciences (GIS) central to professionals that use spatial data to address issues related to the environment, urban planning, public administration, public health, business, homeland security, emergency management, new forms of mobility, etc. This graduate certificate program aims to meet the demand for such professionals. It will be attractive to students from a variety of disciplines across the university. The certificate can be completed online.

Program Description

The graduate certificate will require 12 to 14 credits, depending on the combination of 3- and 4-credit classes that students take. Students will be required to take UP 6700: Introduction to Geographic Information Systems, which provides a fundamental understanding of GIS. After this, students can take classes that allow them to delve more deeply into general social science, natural science, or environmental applications of GIS, or classes that teach them to code within GIS software so as to permit advanced spatial analysis.

Admission Requirements

Admission to this program is contingent upon admission to the Wayne State University Graduate School. Students will also be required to submit a one-page "statement of purpose" as part of their application materials. In the statement, the applicant should explain what has led them to the study of GIS and how the certificate will help them in their professional endeavors. Current Wayne State University graduate students can add the certificate to their current degree by filling out the Change of Graduate Status Request Form.

Curriculum Requirements

To complete the requirements for the certificate, students must complete a minimum of 12 credits. The core course is UP 6700: Geographic Information Systems (offered online fall, winter, and summer semesters). Students are also required to complete at least 8 credits of electives (2-3 courses), selecting from the list of approved courses below:

- UP 6130: Advanced GIS Applications Cr. 4 (being changed to UP 7130; offered online fall semesters)
- ESG 5650: Applied Geological Mapping Cr. 4 (offered online winter semesters)
- ESG 6160: Applied Remote Sensing Cr. 3 (offered online fall semesters)
- ESG 6170: Spatial Statistics and Analyses for Environmental Applications Cr. 3 (offered online yearly)
- INF 6050: Introduction to Computer Programming Cr. 3 (offered online every semester)

- ET 5600: Python: Industrial Applications Cr. 3 (offered in-person winter semesters)

Graduation Requirements

A minimum GPA of 3.0 must be achieved in course work to obtain the graduate certificate. Courses in which students receive grades of C or lower will not count toward the certificate. No transfer credit will be accepted for this certificate program.

Program Administration

The new graduate certificate program will be housed in DUSP, and it will be administered by its Chair/Graduate Director. The Chair/Graduate Director will assist students with course selection and monitor student progress.

Federal Student Aid Eligibility

The program is not seeking Title IV federal student aid eligibility. Students seeking the certificate will need to self-fund.

Budget and Resource Requirements

No additional budgetary resources are required for the certificate program. All courses already exist and are consistently taught.

Accreditation

No specialized accreditation is required.

Approvals

The proposal was approved by the faculty and Chair/Graduate Director of DUSP, the CLAS Faculty Council, the CLAS Faculty Assembly, the Dean of CLAS, the Graduate Council, and the Provost.