

## **ESTABLISHMENT OF A GRADUATE CERTIFICATE PROGRAM IN URBAN SUSTAINABILITY IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES**

### **Recommendation**

It is recommended that the Board of Governors establish a new Graduate Certificate in Urban Sustainability 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**

While cities may have originally been developed in locations that take advantage of natural features such as rivers, harbors, or natural resources, subsequent urban expansion has affected these natural systems, social dynamics, and engineered infrastructure. A vast array of policies and decisions – made by individuals, businesses, and governments - also influence the sustainability of the urban environment. Understanding and securing urban sustainability requires integrated social science, engineering, and scientific approaches and innovative policy-making. Wayne State brings special expertise to address these issues in Rust Belt, post-industrial cities. Establishing a Graduate Certificate in Urban Sustainability will increase the capacity of Wayne State to be an educational hub for the next generation of sustainability leaders who are prepared to create and re-develop the urban environment for its long-term sustainability.

### **Program Description**

The proposed Graduate Certificate in Urban Sustainability will provide students with professionally-oriented, foundational, and applied interdisciplinary expertise suitable for addressing complex urban challenges. As such, this graduate certificate will allow students to arrive at an integrated understanding of social science, scientific, and engineering perspectives. While housed in DUSP, the proposed program leverages expertise across Wayne State, community connections, and builds on other recent programmatic developments by the T-RUST (Transformative Research in Urban Sustainability Training) program.

### **Admission Requirements**

Admission to this program is contingent upon admission to the Graduate School. Students will also be required to submit one-page "statement of purpose". In the statement, the applicant should explain what has led them to the study of Urban Sustainability 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**

There are 3 core classes (a total of 9 credits) required for this graduate certificate program: UP 6470 (Urban Environmental Planning, 3 credits); BIO 7310 (Sustainability of Urban Environmental Systems, 2 credits); and UP 6700 (Geographic Information Systems, 4 credits). The first two classes are designed to provide substantive knowledge on urban sustainability, while the GIS class is designed to introduce students to a critical tool employed by professionals engaged in urban sustainability. Students are also required to complete two elective classes for a minimum of 6 credits. Students must take at least one elective course directed toward their career intentions and at least one elective course that is a specialized, application-based methods class. Elective course options are listed below.

List of career-specific electives

Instructor	Department	Class Code	Class Name	Semester	Credits
Kashian	Biological Sciences	BIO 7540	Landscape Ecology	F, odd yr	3
Kashian	Biological Sciences	BIO 6420	Ecotoxicology	W, even yr	3
Miller	C&E Engineering <sup>1</sup>	CE 5410	Energy, Emissions, Environment (E3) Design		3
Zhang	C&E Engineering <sup>1</sup>	CE 6270	Sustainability Assessment & Management		3
Cooper-McCann	USP <sup>2</sup>	UP 6340	Community Development	F	3
Loh	USP <sup>2</sup>	UP 6260	Land Use Policy and Planning	W	3
Cooper-McCann	USP <sup>2</sup>	UP 6680	Neighborhood Decline and Revitalization	F	3
Sopory	Communication	COM 7170	Risk and Health Communication		3

List of specialized, application-based, methods electives

Instructor	Department	Class Code	Class Name	Semester	Credits
Sperone	ESG <sup>3</sup>	ESG 5650	Applied Geological Mapping	W	4
BIO Faculty	Biological Sciences	BIO 5040	Biometry	W	4
ESG Faculty	ESG <sup>3</sup>	ESG 6160	Applied Remote Sensing		3
ESG Faculty	ESG <sup>3</sup>	ESG 6170	Spatial Statistics and Analyses for Environmental Applications		3
UP faculty	USP <sup>2</sup>	UP 7130	Advanced Geographic Information Systems	F	4

<sup>1</sup> Civil and Environmental Engineering; <sup>2</sup> Urban Studies and Planning; <sup>3</sup> Environmental Science and Geology.

**Graduation Requirements**

A minimum GPA of 3.0 must be achieved in course work to obtain the graduate certificate. Courses for which students receive grades of C or lower will not count toward the certificate.

**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 College of Liberal Arts & Sciences, the Graduate Council, the Dean of the Graduate School, and the Provost.