

## **ESTABLISHMENT OF A NEW PROGRAM FOR THE MASTER OF SCIENCE IN ROBOTICS**

### **Recommendation**

It is recommended that the Board of Governors establish a new degree program, the Master of Science in Robotics, in the College of Engineering effective Fall 2020.

### **Background**

This is a proposal for a new interdisciplinary master's degree program in Robotics with three majors to be housed in the College of Engineering. The goal is to build a highly-visible and coherent program serving the interests of students, industry, and faculty in robotics foundations and applications. Students will elect one of the three majors, administered by an existing department in the College of Engineering.

### **Program Description**

The interdisciplinary MS in Robotics is organized into three majors.

- Industrial Automation, administered by the Division of Engineering Technology
- Intelligent Control, administered by the Department of Electrical and Computer Engineering
- Smart Mobility, administered by the Department of Computer Science

All three majors have a common ten-credit core requirement. In addition, each has its own additional requirements. The rest of the elective credits are offered by each department.

### **Admissions Requirements**

Applicants must meet requirements for admission to the Graduate School. Students must have a Bachelor's Degree or the equivalent in Engineering from an accredited college or university. Students from all science, technology, engineering and math (STEM) disciplines will be considered for admission. Professional experience will be considered in admission. Each major is administered by a department in the College of Engineering. Students applying for the MS in Robotics must meet the application requirements for the department administering the major to which they are applying.

### **Curriculum Requirements**

The minimum requirements for the master's degree are thirty credits under one of two degree plans approved by the College of Engineering:

**Plan A:** consists of a minimum of twenty-four credit hours of coursework in combination with a minimum of six credits of thesis.

**Plan C:** consists of a minimum of thirty credits of coursework.

Students will be required to take ten credits in common core courses. Each track has additional required course(s). The rest of the elective credits is offered by each department.

**Graduation Requirements**

All coursework must be completed in accordance with the Graduate School and the regulations governing graduate scholarship and degrees.

**Program Administration**

The overall program will be administered at the College of Engineering by a committee of four co-directors, one leading each major and one representing the College of Engineering. A special Advisory Committee will be drawn from various robotics related industries. This committee will meet regularly with co-directors in order to perform a review/advice of the program.

**Budget and Resource Requirements**

This program is based upon the existing courses offered in the three departments: Engineering Technology, Electrical and Computer Engineering and Computer Science. As such, support for the faculty and facilities of the new (proposed) MS in Robotics is already in place. No additional expenses are expected.

**Approvals**

The proposal was approved by the faculty of the Division of Engineering Technology, Electrical and Computer Engineering Department, Computer Science Department, the Academic Operations Committee of the College of Engineering, the Dean of the College of Engineering, Graduate Council, the Dean of the Graduate School, and the Provost.

## **ESTABLISHMENT OF A GRADUATE CERTIFICATE IN NONPROFIT MANAGEMENT IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES**

### **Recommendation**

It is recommended that the Board of Governors establish a new Graduate Certificate in Nonprofit Management, to be offered by Graduate Program in Public Administration (MPA) in the Department of Political Science in the College of Liberal Arts and Sciences, effective Fall 2020.

### **Background**

The nonprofit sector continues to grow to meet the evolving needs of diverse populations. Nonprofit organizations are crucial actors in public service delivery networks alongside public agencies. Substantial numbers of charitable nonprofits and foundations operate in urban areas, where the demand for their services is especially high. In 2018, the State of Michigan had 50,654 nonprofit organizations registered with the IRS. According to the Public Sector Consultants (2018), Michigan nonprofits employed close to 470,000 people, held more than \$268 billion in assets, and generated of more than \$87 billion in revenues.

Nonprofit professionals have diverse background in fields such as social work, education, historical preservation, or the arts, and often learn nonprofit management skills ‘on the job’ or via limited resources made available by their professional organizations. Few possess a management degree or advanced management skills that prepare them adequately to handle the complexities of nonprofit management. Hence, there exists a critical need, particularly in Metropolitan Detroit, to enhance the nonprofit sector’s capacity by providing access to high quality and academically rigorous training to people pursuing nonprofit careers. The proposed Graduate Certificate in Nonprofit Management will fill this need, and Wayne State University (WSU) is well-positioned to fill such a need by offering the Graduate Certificate in Nonprofit Management to practitioners working in Michigan.

The need for well-trained nonprofit professionals is urgent at the time of economic recession, when there is an increased demand for nonprofit-run social assistance programs. These management skills are also in high demand when public organizations are unable to cope with their own drastic social situations (e.g., the current COVID-19 pandemic), and have to rely on the philanthropic community and the nonprofit sector to provide critical services.

### **Program Description**

Graduate Certificate in Nonprofit Management is a new (primarily online) certificate program tailored to the unique challenges faced by nonprofit organizations in Metropolitan Detroit and southeast Michigan. The program seeks to enhance the capacity of the nonprofits operating in the region by offering practically relevant and academically rigorous training with flexible scheduling options and online course offerings to aspiring and current nonprofit professionals. The program objectives are to: (1) advance the knowledge and skills of current nonprofit professionals and of those pursuing a nonprofit career; (2) enhance the overall management capacity of nonprofit organizations within the Detroit metropolitan area, particularly those located within the City of Detroit; and (3) advance the urban mission of WSU by serving the nonprofit community in Metropolitan Detroit.

The nonprofit management certificate caters to the three main groups of prospective students:

1. Applicants holding graduate degrees from WSU or other universities, who are already employed or interested in working in the nonprofit sector.
2. Applicants holding undergraduate degrees from WSU and other universities who are professionally employed in the nonprofit sector.
3. Current MPA students pursuing a nonprofit management concentration and other WSU graduate students who may decide to add a full certificate to their graduate degree.

The Graduate Certificate in Nonprofit Management will serve as a pipeline for the MPA program. Academically capable students in the certificate program will have an opportunity take courses in the MPA program and may later apply to the MPA program.

### **Admission Requirements**

Admission to this program is contingent upon admission to the Graduate School. To be considered for regular admission:

1. All applicants are required to submit a resume and a personal statement.
2. To be considered for regular admission:
  - Applicants holding bachelor degrees must have 3.3 grade point average in their undergraduate program.
  - Applicants holding graduate degrees must have 3.0 grade point average in their graduate program.

Preference will be given to applicants who have prior working experience or are planning to develop their careers in the nonprofit sector, including philanthropic organizations and the resource development field.

### **Curriculum Requirements**

The academic requirements for the Graduate Certificate in Nonprofit Management follow the requirements for a WSU Certificate Program as outlined in the WSU Graduate Certificate Policy (<https://gradschool.wayne.edu/program-proposals/certificate>). The program consists of 12 credit-hours, including 3 required foundational courses and 1 functional elective course at the 7000 level (see Table 1). The program will capitalize on the existing course offerings currently taught by full- and part-time MPA faculty, and does not require new course development. All required courses will be offered either online or as hybrid, and electives will be offered online, as hybrid, or on-campus.

<b>Table 1: Proposed Curriculum</b>	<b>Existing Course</b>	<b>Instructor</b>	<b>Semester</b>
<b><i>Required Foundational Courses (9 credits)</i></b>			
PS 6710 Foundations of Nonprofit Management	Yes	FT	Fall
PS 6700 Financial Management for Nonprofit Organizations	Yes	FT/PT	Winter
PS 6720 Marketing, Development, & Grant Writing for Nonprofit Organizations	Yes	PT	Spring-Summer
<b><i>Functional Elective Courses (3 credits)</i></b>			
PS 7320 Organization Theory and Behavior	Yes	FT	Annually

PS 7340 Public Personnel Management	Yes	FT	Annually
PS 7350 Management of Public Organizations and Programs	Yes	FT	Annually
PS 7460 Program Evaluation	Yes	FT	Annually
SW 7095 Social Entrepreneurship	Yes	PT	Annually

### **Graduation Requirements**

All coursework must be completed in accordance with the WSU Graduate School and the regulations governing graduate scholarship and degrees. Students must complete requirements within three years of admission.

### **Program Administration**

The Graduate Certificate will be housed in the Political Science Department in the College of Liberal Arts and Sciences. Specific administrative tasks will be supervised through the MPA program, its director, and the department chair. This supervision includes program assessment. A full-time MPA faculty member with nonprofit management expertise will act as a program coordinator. The certificate program coordinator will coordinate program marketing and recruitment, admit and assist students with their enrollment and course selection, monitor student progress toward completion, and conduct program assessment.

### **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**

The program has obtained funding needed to support its development and launch year from the “Knowledge on Demand” program by the Office of Provost, and beyond the first year, it will rely on a small maintenance budget administered by the Political Science Department. The certificate courses will be staffed by current full- and part-time MPA program faculty.

### **Accreditation**

No specialized accreditation is required for the certificate program.

### **Approvals**

The proposal was approved by the MPA program, the chair of the Department of Political Science, the faculty council and dean of the College of Liberal Arts and Sciences, and the New Programs Committee, Graduate Council, and the Dean of the Graduate School and the Provost.