The University Senate of Michigan Technological University

Proposal 18-09
(Voting Units: Academic)

"Minor in Leadership for a Technological World"

Office of the Provost

Introduction

This proposal recommends establishing a 'Minor in Leadership for a Technological World' through the Office of the Provost. This program is multidisciplinary and was developed through collaboration among the College of Engineering, College of Sciences and Arts, School of Business and Economics, School of Forest Resources and Environmental Science, and the School of Technology. This program will be offered by the Office of the Provost and administered through the Institute for Interdisciplinary Studies (IIS).

I.   Title of Minor

Minor in Leadership for a Technological World

II.   Catalog Description

The minor in Leadership for a Technological World enables students to develop as leaders and to gain an understanding of leadership in an increasingly technological world. Students will broaden their knowledge, skills and abilities in communication, business acumen, global awareness and diversity, and technology. Innovation, creativity, knowledge of good leadership characteristics, ethics, practices, and the ability to learn effectively and continuously will be emphasized. Students interested in pursuing this minor are strongly encouraged to consult with their academic advisor early during their program of study in order that they complete the first foundation of leadership class prior to taking other classes in the minor.

III.   Rationale

The outsourcing of blue collar jobs overseas has been going on for quite some time. However, a more recent phenomenon has been the outsourcing of white collar jobs, particularly in the information technology areas. The increase in university graduates in China and India, coupled with unlimited inexpensive access to a high-speed/bandwidth internet will cause a fundamental change in the requirements for U.S. university graduates, as the more routine business, science, and engineering jobs will move to lower labor cost areas. The problem is particularly acute in engineering and science due to the relatively low number of graduates compared to the rest of the world. Vital will be the technological background, vision, creativity and entrepreneurial spirit, the communication skills, and the broad "systems" perspective that includes not only technical breadth and awareness but also the business sense to create a sustainable, quality future for the United States and the world. The ability of our graduates to develop, coordinate and lead projects globally will be paramount. Recognizing this change and responding to it will be crucial to the economic success of the United States and the standard of living of our children's generation. The technological leadership program will prepare students for this new and very different world.

Students in the program will have an increased awareness of their leadership abilities and responsibilities, increased leadership experiences, and knowledge of leadership principles and best practices. The students will have a competitive advantage in the job market and subsequent career or in graduate school. They will experience a shortened transition time from traditional business, engineering and science functions to leadership positions.

While many universities in the state of Michigan offer programs to develop and enhance the leadership abilities of their students through Leadership Institutes and programs, the main focus of these programs is community, professional, and non-profit leadership. It appears that the only University in Michigan currently offering a leadership minor is Central Michigan with the primary goal being to "provide students with the courses and experiences necessary to serve as leaders in their community and profession." Whereas the minor offered by Central Michigan focuses on domestic leadership, the proposed minor at Michigan Tech seeks to prepare students to lead in a more global and technological setting.

This minor is structured around the core competencies of leadership

1.   Self awareness

2.   Communication

3.   Teamwork

4.   Ethical Practices

5.   Social responsibility

The self awareness competency is addressed in part through the Foundation of leadership classes BA3710 or UN 3200. The remaining competencies are addressed through selection of courses from lists relevant to each competency.

IV. List of Courses

Required (6 credits)

Foundation of Leadership Classes

Course #	Title	Credits	Pre-requisites/Co-requisites	Offered	Frequency
BA 3710 **OR**	Leadership Development	3		Spring	Annually
UN3200	Global Technological Leadership	3	UN3100	Spring	Annually
UNXXX1	Capstone I Preparation for field experience (Develop proposal for field experience for capstone)	1	Cannot be a freshman	Every Semester	
UNXXX2	Capstone II Field Practicum (Student affairs collaborate with faculty to guide students through leadership field experience)	1	Junior or Senior Standing	Every Semester	
UNXXX3	Capstone III Leadership Capstone Seminar (Capstone class pulls together the experiences of the class in their leadership fieldwork, Student Leadership Portfolio and presentations)	1	Prereq/Coreq Capstone I **and** II. Junior or Senior Standing	Every Semester	

Select one from each of four lists (12 credits)

1. Communication and Leadership

Course #	Title	Credits	Pre-requisites/Co-requisites	Semesters Offered	Frequency
UN1100 **AND**	Pavlis Leadership Seminars	1	Instructor Approval	Fall	Annually
UN1200 **AND**		1	UN1100	Spring	Annually
UN2100		1	UN1200	Fall	Annually
HU2830	Speech Communication	3		Fall, Spring, Summer	Annually
HU3120	Scientific and Technical Communication	3	Preq. UN1002 or UN1003 Cannot be freshman/sophomore	Fall, Spring, Summer	Annually
HU3629	Special Topics in Professional Writing	3	Preq. UN1002 or UN1003	Spring	Annually
HU4625	Risk Communication	3	Preq. UN2002 Cannot be freshman/sophomore	Spring, Summer	Annually
CM3410	Technical Communication for Chemical Engineering	3	Preq. UN2001 **and** UN2002 Cannot be freshman/sophomore	Fall, Spring, Summer	Annually

2. Collaboration/organizational leadership/interpersonal leadership

Course #	Title	Credits	Pre-requisites/Co-requisites	Semesters Offered	Frequency
BA2700	Business Problem Solving	3	Cannot be freshman	Fall, Spring Summer	Annually
BA3700	Organizational Behavior	3	Cannot be freshman	Fall, Spring Summer	Annually
BA3710	Leadership Development	3	Cannot be freshman	Fall	Alternate yrs beginning 2008-09
BA3780	Entrepreneurship	3	Cannot be freshman/sophomore	Fall, Spring, Summer	Annually
BA4750	Managing Change in Organizations	3	Preq. BA3700. Cannot be freshman/sophomore	Fall	Alternate yrs beginning 2008-09
HU2820	Communication and Culture	3		Fall	Annually
HU3261	Communicating Across Cultures	3	Preq. UN1002 or UN1003 Cannot be freshman	On Demand	
HU3820	Interpersonal Communication	3	Preq. UN1002 or UN1003	Fall, Summer	Annually
HU3840	Organizational Communication	3	Preq. UN1002 or UN1003	Spring	Annually
HU3881	Communication and History	3		Fall	Annually
HU4701	Political Philosophy	3	Preq. UN1002 or UN1003	Spring	Annually
PSY3010	Theories of Personality	3	Preq. PSY2000 **and** UN1002 or UN1003	Spring	Annually
PSY3200	Motivation and Emotion	3	Preq. PSY2000 Cannot be freshman	On Demand	
PSY3700	Industrial/Organizational Psychology	3	Preq. PSY2000 Cannot be freshman	On Demand	
SS/PSY3720	Social Psychology	3	Preq. UN2002 or PSY2000	On Demand	

3. Ethics

Course #	Title	Credits	Pre-requisites/Co-requisites	Semesters Offered	Frequency
HU2400	Introduction to Diversity Studies in the United States	3		Fall	Annually
HU2520	Cultural Diversity in American Literature	3		Spring	Annually
HU2702	Ethical Theory and Moral Problems	3		Fall, Summer	Annually
HU3400	Topics in Diversity Studies	3		Spring	Annually
HU3710	Engineering Ethics	3	Preq. UN1002 or UN1003	Spring	Annually
HU3711	Biomedical Ethics	3	Preq. UN1002 or UN1003	Spring	Annually

4. Social and Global Contexts/Society/Community

Course #	Title	Credits	Pre-requisites/Co-requisites	Semesters Offered	Frequency
BA4710	International Management	3	Preq. BA3700 **and** EC3100 Senior Standing	On Demand	
ENT2961 **AND**	Teaming in the Enterprise	2	CoPreq. UN2002 Cannot be Freshman	Fall	Annually
ENT2962	Communication Contexts	1	Preq. UN1002 or UN1003 Cannot be freshman	Spring	Annually
HU2920	Language and Society	3		Spring, Summer	Annually
HU3545	Literature Across Borders	3		Fall	Alt. yrs beginning 2004-05
HU3700	Philosophy of Science	3	Preq. UN2002	Fall	Annually
HU3701	Philosophy of Technology	3	Preq. UN2002	Spring	Annually
HU3850	Cultural Studies	3	Preq. UN1002 or UN1003	Spring	Annually
HU3910	Global Language Issues	3	Preq. UN1002 or UN1003	Spring, Summer	Alt. yrs. beginning 2008-09
PSY3070	Cross-Cultural Psychology	3	Preq. PSY2000 **and** UN1002 or UN1003	On Demand	
SS2100	World Peoples and Environments	3		Fall, Spring, Summer	Annually
SS3410	World Resources and Development	3	Preq. UN2002	Fall, Spring Summer	Alt. yrs. beginning 2001-02
SS3505	US Military History	3	Preq. UN1002 or UN1003	Fall, Spring	Annually
SS3600	American Foreign Policy	3	Preq. SS2600	Fall, Spring	Alt. yrs. beginning 2000-01
SS3610	International Law	3	Preq. UN2002	Fall, Spring	Alt. yrs. beginning 2000-01
SS3620	International Environmental Technology Policy	3	Preq. UN2002	Fall, Spring	Alt. yrs. beginning 2000-01
SS3700	Industry and Society	3	Preq. UN2002 or SS2700	Fall	Alt. yrs. beginning 2002-03
SS3710	Social Problems	3	Preq. UN2002 or SS2700	Spring, Summer	Alt. yrs. beginning 2002-03
SS3750	Social Inequality	3	Preq. UN2002 or SS2700 Cannot be freshman	Spring	Alt. yrs. beginning 2001-02

This program is compatible with the 25 semester hour certificate program in global technological leadership. Students in the leadership minor could switch to the certificate program by participating in the Summer Institute.

New Class Descriptions

UNXXX1 Capstone I Preparation for field experience. 1 credit. In this class a group of one to three students will work with a faculty member and an advanced undergraduate with overseas leadership experience to develop a plan for a leadership project. The students will gain experience in project planning, evaluation of the project to deliver leadership experience, and logistics of implementing such a project. Sophomore, Junior or Senior standing is required.

UNXXX2 Capstone II Field Practicum. 1 credit. In this class a group of one to three students will work in a collaborative setting with faculty, student affairs staff to complete a field practicum experience in leadership. Faculty and staff with guide the students through the implementation of their leadership project and help them to problem solve issues that arise. Junior or Senior standing is required.

UNXXX3. Capstone III Leadership Capstone Seminar. 1 credit. In this class, several students from the Capstone I and II classes will share their experiences in the field leadership preparation and practicum. The goal of this class is to share leadership fieldwork through Student Leadership Portfolios and presentations. Faculty will work with the students to relate their leadership experiences with the theory of leadership and other classes students have been involved in that relate to leadership.

V. Estimated Costs

One of the goals of this minor is to provide opportunities for involvement of faculty members from across campus who have worked with leadership students and programs or who are interested in working with these students and programs. Outside funding will be sought as the program grows in order to provide additional support to faculty through incentive accounts where necessary to support their involvement in this program. In the first few years of implementation, faculty from the Institute for Interdisciplinary Studies and the Pavlis Leadership

Taskforce will be involved in offering the first two of the three new one credit Capstone classes. Other faculty will be involved according to their interest and the availability of necessary resources. The Institute for Interdisciplinary Studies will cover any costs associated with the third of the Capstone classes.

Additional support for faculty will be provided by both student affairs staff and advanced students in the Pavlis leadership program through their senior practicum course (UN 4200).

It is anticipated that between ten and fifteen students would enroll in this program each year.

Planned Implementation Date: Fall 2009
Introduced to Senate: 01 April 2009
Withdrawn by Authors: 03 April 2009