The University Senate of Michigan Technological University

Proposal 32-16
(Voting Units: Academic)

“Minor in Leadership”

1. February 26, 2016

2. **Proposer Contact Information:**
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   Lorelle Meadows (lameadows@mtu.edu), Dean, Pavlis Honors College

3. **Introduction**
   This proposal recommends establishing a ‘Minor in Leadership’ through the Pavlis Honors College to replace the existing Pavlis Institute Certificate in Global Technological Leadership. The Pavlis Certificate program is multidisciplinary and was developed through collaboration between 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 as an interdisciplinary minor by the Office of the Provost and administered through the Pavlis Honors College. The Director of the Pavlis Institute or a designated member of the Pavlis Honors College will serve as the advisor for this minor.

4. **Rationale**
   The outsourcing of blue collar jobs overseas has been on-going 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 proposed 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:

- Self awareness
- Communication
- Teamwork
- Ethical Practices
- Social responsibility

The self-awareness competency is addressed in part through the Foundation of Leadership classes MGT3100 or UN2200 or AF3001. The remaining competencies are addressed through selection of courses from lists relevant to each competency.

5. **Details:**
   I. **Title of Minor:** Minor in Leadership

   II. **Catalog Description**

   The Leadership minor administered through the Pavlis Honors College 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.

   III. **List of Courses**

   **Required Courses (minimum 6 credits) – Foundations of Leadership**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT3100</td>
<td>Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN2200</td>
<td>Leadership, Culture &amp; Technology</td>
<td>3</td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AF3001</td>
<td>Leadership Studies I</td>
<td>3</td>
</tr>
<tr>
<td><strong>UN4060</strong></td>
<td>Pavlis International Leadership Practicum</td>
<td>Variable</td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN4050</td>
<td>Leadership Practicum</td>
<td>Variable</td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS3960</td>
<td>International Experience</td>
<td>Variable</td>
</tr>
</tbody>
</table>
### Elective Courses: Select at least one course from each of the following lists (12 credits)

1. **Communications & Culture**

<table>
<thead>
<tr>
<th>Course # (Prerequisites)</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HU3120*</td>
<td>Technical and Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td>HU3261*</td>
<td>Communicating Across Cultures</td>
<td>3</td>
</tr>
<tr>
<td>HU3629*</td>
<td>Special Topics in Professional Writing</td>
<td>3</td>
</tr>
<tr>
<td>HU3820*</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>HU3830*</td>
<td>Creativity, Culture &amp; Change</td>
<td>3</td>
</tr>
<tr>
<td>HU3840*</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>HU3850*</td>
<td>Cultural Studies</td>
<td>3</td>
</tr>
<tr>
<td>HU3910*</td>
<td>Global Language Issues</td>
<td>3</td>
</tr>
<tr>
<td>HU4625*</td>
<td>Risk Communication</td>
<td>3</td>
</tr>
<tr>
<td>HU4626</td>
<td>International Technical Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSY3070</td>
<td>Cross-Cultural Psychology</td>
<td>3</td>
</tr>
<tr>
<td>UN3404</td>
<td>Pavlis Language and Culture Awareness</td>
<td>3</td>
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2. **Teamwork & Collaboration**

<table>
<thead>
<tr>
<th>Course # (Prerequisites)</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENT2961</td>
<td>Teaming in the Enterprise</td>
<td>2</td>
</tr>
<tr>
<td>MGT2000</td>
<td>Team Dynamics &amp; Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>MGT3000</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MGT3800</td>
<td>Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MGT4100</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT4500</td>
<td>Managing Change in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PSY3010*</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSY3200</td>
<td>Motivation and Emotion</td>
<td>3</td>
</tr>
<tr>
<td>PSY3700</td>
<td>Industrial/Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SS/PSY3720</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>UN3300</td>
<td>Innovation through Human Centered Design</td>
<td>3</td>
</tr>
<tr>
<td>UN4100</td>
<td>Pavlis Leadership/Mentorship Capstone I</td>
<td>1</td>
</tr>
<tr>
<td>UN4200</td>
<td>Pavlis Leadership/Mentorship Capstone II</td>
<td>1</td>
</tr>
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3. **Ethical Practices & Social Responsibility**

<table>
<thead>
<tr>
<th>Course # (Prerequisites)</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FW3115</td>
<td>Natural Resources, Ethics and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>HU2400</td>
<td>Introduction to Diversity Studies in the United States</td>
<td>3</td>
</tr>
<tr>
<td>HU2702</td>
<td>Ethical Theory and Moral Problems</td>
<td>3</td>
</tr>
<tr>
<td>HU3400*</td>
<td>Topics in Diversity Studies</td>
<td>3</td>
</tr>
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</table>
4. Global Technology

<table>
<thead>
<tr>
<th>Course # (Prerequisites)</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC3100* (EC2001)</td>
<td>International Economics</td>
<td>3</td>
</tr>
<tr>
<td>ENG4510</td>
<td>Sustainable Futures</td>
<td>3</td>
</tr>
<tr>
<td>HU3700*</td>
<td>Philosophy of Science</td>
<td>3</td>
</tr>
<tr>
<td>HU3701*</td>
<td>Philosophy of Technology</td>
<td>3</td>
</tr>
<tr>
<td>HU3810*</td>
<td>Technology and Cultural Theory</td>
<td>3</td>
</tr>
<tr>
<td>MGT4600</td>
<td>Management of Technology &amp; Innovation</td>
<td>3</td>
</tr>
<tr>
<td>SS3410*</td>
<td>World Resources and Development</td>
<td>3</td>
</tr>
<tr>
<td>SS3700* (SS2700)</td>
<td>Industry and Society</td>
<td>3</td>
</tr>
<tr>
<td>SS3801*</td>
<td>Science, Technology &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>SS4210*</td>
<td>Global Change since 1400</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Requirements: 18 credits (Students are required to complete at least 9 credit hours of 3000-level or higher courses at Michigan Tech)

IV. Prerequisites not listed in the Minor
Several of the required and elective courses associated with the proposed minor have prerequisite courses (as noted in parentheses). Additionally, approved Gen Ed courses are indicated by an “asterisk” and have the additional pre-reqs of UN1015 and (UN1025 or Modern Language 3000-level or higher). We have intentionally identified a wide variety of course options to best accommodate a variety of majors, such that pre-reqs would likely be fulfilled through requirements of the major.

6. New Course Descriptions
Proposed new courses associated with this minor are under development within the Pavlis Honors College and the required “New Course Add Forms” are included with this proposal.

7. Estimated Costs
No additional costs are expected for this minor as it will be administered through the support currently provided to the Pavlis Institute Certificate program.

8. Planned Implementation Date: Fall Semester 2016
Appendix A: Essay on leadership as an academic discipline (by Dr. Latha Poonamallee)

Leadership - an academic discipline

Leadership is one of the most pursued topics in a range of disciplines from psychology, sociology, higher education, social psychology and organizational behavior. It is the holy grail of organizational effectiveness and change literature. Winston and Patterson (2006) write that a search of the Expanded Academic database in 2003 of published articles using the term “leadership” returned over 26,000 articles. In this paper, we present a brief history of leadership as an academic discipline and the various approaches taken towards it.

Focus on the Leader/Individual: Traits, Skills & Styles Approach
The trait perspective suggests that certain individuals have special innate or inborn characteristics that make them leaders. Its focus is on the individual leaders and not on the situation, their relationship with the follower or any such factors that may be relevant. Key contributions in this approach have been made by Stodgill (1948; 1974), Mann (1959), Lord, De Vader and Alliger (1986), Kirkpatrick and Locke (1991), and Zaccaro, Kemp, and Bader (2004). Major leadership traits include intelligence, self-confidence, determination, integrity, and sociability. This approach has been translated into practice around hiring and performance management in organizations. Psychometric tests have been designed to assess and evaluate individuals’ traits. The challenge in this approach is that given that traits are in-born characteristics, leadership capacity cannot be really developed.

The skills approach also takes a leader centered perspective but in this model, the emphasis is on skills and abilities that can be learned and developed. Key contributions to this approach have been made by Katz (1955), Mumford, et.al. (2000), and Boyatzis (2004). All of them focus on identifying critical leadership competencies and their relationship with leadership outcomes. Boyatzis (2004) particularly develops an inventory of emotional competencies and their behavioral indicators. This approach is much more democratic and amenable to application in training situations.

Styles approach emphasizes the behavior of the leader by focusing on what leaders do and how they act. Leadership styles lie in a continuum of two interconnected dimensions: task orientation and people orientation. First set of studies in this approach were conducted at the Ohio State University in the late 1940’s, in the University of Michigan beginning in the 1950s and by Blake and Mouton in the early 1960s.

Focus on the Context/Leader – situational and contingency approaches
Situational approach was developed by Hersey and Blanchard (1969) and further refined and developed in the later years. The premise of this theory is that different situations demand different styles of leadership. An effective leader adapts his or her style to the demands of various situations. In this model, leadership is composed of both directive and supportive functions.

Contingency Theory is a leader-match theory (Fiedler, 1964; Fiedler and Garcia, 1987). It suggests that a leader’s effectiveness depends on how well the leader’s style fits the context.
Effective leadership is contingent on matching a leader’s style to the right setting. Situational variables include leader-member relations, task structure and position power.

**Focus on the Leadership Process – Path-Goal Theory, Leader-Member Exchange Theory**

Path-goal theory takes a process approach to understanding how leaders motivate subordinates to accomplish designated goals. It draws heavily on motivation theories. Early contributors to this approach are Evans (1970), House (1981), House and Dessler (1974) and House and Mitchell (1974). It emphasizes the relationship between the leader’s style and the subordinate characteristics.

Leader-Member Exchange theory conceptualizes leadership as a process that is centered on the interactions between leaders and followers. Early studies in this approach focused on the nature of vertical linkages between leaders and followers (Dansereau, Graen, and Haga, 1975; Graen and Uhl-Bein, 1995). Later theories also considered how this exchange is related to organizational effectiveness. High-quality leader-member exchanges produced less employee turnover, more positive performance evaluations, higher frequency of promotions, greater organizational commitment, more desirable work assignments, better job attitudes, more attention and support from the leader, energy and creativity at work, greater participation, and faster career progress (Atwater and Carmeli, 2009; Graen & Uhl-Bien, 1995; Harris, Wheeler, and Kacmar, 2009; Lien, Wayne and Stillwell, 1993).

**Leadership Functions – Transformational Leadership, Team Leadership**

Transformational leadership is part of the new leadership paradigm (Bryman, 1992), which gives more attention to ethical, charismatic, and affective elements of leadership. Focused on intrinsic motivation and follower development, it fits the needs of today’s work groups, who want to be inspired and empowered in times of uncertainty. The earliest work on this was done by Burns (1978). Later, in 1998, Bass coined the term pseudo-transformational leadership to characterize leaders who are self-consuming, exploitive and power-oriented, with warped moral values. More recently, contributions have been made by Avolio (1999), Bass and Avolio (1990), Bass and Steidmeier (1999), Bass and Riggio (2006), Bennis and Nanus (1995), Conger (1999), Howell and Avolio (1993), Hunt and Conger (1999), Kouzes and Posner (1987; 2002), and Kuhnert (1994). Another variation is Authentic Leadership which brings back the leader and what goes on in the leader’s mind. Key contributions in this area have been made by Avolio and Gardner (2005), Eagly (2005), Gardner, Avolio, and Walumbwa (2005), Shamir and Eilam (2005), and Walumbwa, Avolio, Gardner, Wernsing and Peterson (2008).

Team dynamics and team leadership have been important areas of study since the 1960s and 1970s. Team leadership has been established to be critical to achieving both affective and behaviorally based team outcomes (Stagl, Salas and Burke, 2007). Others who have worked in this area include Barge (1996), Hackman and Walton (1986), Larson and LaFasto (1989), Nadler (1998), and Zaccaro et.al. (2001).

**Contemporary Leadership Issues/Challenges**

More recently, newer topics in leadership have emerged due to the extreme change in demographic factors. These areas include Women and Leadership (Book, 2000; Eagly, Makhijani and Klonsky, 1992; Helgesen, 1990; Jackson and Effertz, 1974; Powell, 1990;

Leadership Training and Outcome Evaluation Studies

Leadership training and development is an area in which organization of all kinds have begun to invest a lot of resources. Given our current challenges in a risk society (Beck, 2001), leadership development has emerged as a key strategy to shape the present and the future. Recent research has examined the impact of formal, curricular leadership programs in academic campuses. Pascarella and Terenzini (2005) found that students report positive gains in leadership skills through collegiate experience. Kezar and Moriarity (2001)’s longitudinal study found that enrollment in formal leadership programs was a positive predictor for four demographic groups (White men, African-American men, White women, and African-American women) and was the most significant predictor for white men and white women. Dugan (2006) found that participation in a formal leadership program enhanced students’ leadership capacity on the outcomes of establishing common purpose and citizenship. Cress et.al. (2001) found that participants in formal leadership programs demonstrated significantly higher levels of positive change in leadership skills and knowledge compared to non-participants. Multi-Institutional Study of Leadership (MSL. 2008) in which data from 50,378 students in 52 academic campuses confirms the positive impact of formal leadership programs in academic campuses. They have found that long term curricular leadership programs have demonstrated the most significant impact on enhancing leadership efficacy on academic campuses.

References


