A GRADUATE-LEVEL, COMPETENCY-BASED CURRICULUM FOR PROJECT MANAGEMENT

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Project Management Symposium
Introduction

• Experience in designing a competency-based curriculum (CBE) in project management at UMUC
• UMUC is a component university of USM
  – Includes graduate and undergraduate schools
  – The Graduate School has master’s, MBA, and doctoral programs
• The CBE program in project management is designed as a master’s degree
Motivations for CBE

- Increases in cost of education
- Graduate unemployment
- Student profile
Student Loan Default Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Default Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>6.70%</td>
</tr>
<tr>
<td>2008</td>
<td>7.00%</td>
</tr>
<tr>
<td>2009</td>
<td>8.90%</td>
</tr>
<tr>
<td>2010</td>
<td>9.10%</td>
</tr>
<tr>
<td>2011</td>
<td>10%</td>
</tr>
<tr>
<td>2012</td>
<td>11.80%</td>
</tr>
</tbody>
</table>
Student Profile

Headcount by Age Range

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Fall 2010</th>
<th>Fall 2011</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 and Over</td>
<td>10%</td>
<td>11%</td>
<td>10%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>40 to 49</td>
<td>26%</td>
<td>26%</td>
<td>28%</td>
<td>25%</td>
<td>24%</td>
</tr>
<tr>
<td>35 to 39</td>
<td>18%</td>
<td>14%</td>
<td>15%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>30 to 34</td>
<td>20%</td>
<td>22%</td>
<td>23%</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td>25 to 29</td>
<td>21%</td>
<td>22%</td>
<td>17%</td>
<td>19%</td>
<td>22%</td>
</tr>
<tr>
<td>22 to 24</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>21 and Under</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Student Profile

Headcount by Full and Part-Time status

- Fall 2010: 97% Part-time, 3% Full-time
- Fall 2011: 98% Part-time, 2% Full-time
- Fall 2012: 97% Part-time, 3% Full-time
- Fall 2013: 96% Part-time, 4% Full-time
- Fall 2014: 98% Part-time, 2% Full-time
Student Profile

Headcount by Geographic Origin

- **Fall 2010**
  - Unknown: 2%
  - Other US States: 55%
  - Maryland: 52%
  - International: 1%

- **Fall 2011**
  - Unknown: 1%
  - Other US States: 54%
  - Maryland: 51%
  - International: 1%

- **Fall 2012**
  - Unknown: 1%
  - Other US States: 50%
  - Maryland: 50%
  - International: 1%

- **Fall 2013**
  - Unknown: 1%
  - Other US States: 48%
  - Maryland: 48%
  - International: 1%

- **Fall 2014**
  - Unknown: 1%
  - Other US States: 48%
  - Maryland: 48%
  - International: 1%
Target Audience

- Adult students
- Working part-time
- Distributed geographically
- Interested in:
  - Enhancing their careers in project management
  - Transitioning to a career in project management
Institutional Curriculum Requirements

• 36 credits for master’s degree
• Distributed over 6 courses
• 4 semesters in an academic year
• Each semester 11 weeks long
Institutional Requirements

- Common design process across all degree programs
  - State program learning objectives
  - Specify competencies
  - Design assessments to exercise competencies
  - Identify learning topics
  - Allocate competencies to courses
  - Define rubrics
Project Management Program Learning Objectives

– Lead and work in teams
– Persuade and influence others
– Delegate tasks
– Communicate clearly
– Perform quantitative analysis
– Solve problems and make decisions
– Learn how to apply technology to solve problems
– Plan, organize, and prioritize
Program Competencies

• Managerial aspects of project management
  – Competencies transferable across industries and enterprises

• Industry-specific policies and procedures
  – Competencies specific to an industry

• Enterprise assets, policies, and procedures
  – Competencies specific to an enterprise
Curriculum Scope

Managerial Project Management
- Initiate, Plan, Track, Close

Industries
- IT, Defense, Construction

Enterprises
- Mitre, Norton, SASC, Toll Brothers

Capstone
Managerial Aspects of Project Management

- Performance
- Knowledge
- Behavior
Curriculum Courses

Curriculum Body
- Decisive Comm. and Leadership
- Project Management Essentials
- Project Management Methods
- Project Schedule Management
- Project Risk Management

Capstone
- Project Management Capstone

Graduate Abilities
Domain Fundamentals
Domain Specialization
Personalization
Certified Associate in Project Management (CAPM)
Project Management Professional (PMP)
PMI Risk Management Professional (PMI-RMP)
PMI Scheduling Professional (PMI-SP)
PMI Credentials & Industries Alignment

- CAPM, PMP
- PMI-SP
- PMI-RMP

1. Decisive Comm. & Leadership
2. Project Management Essentials
3. Project Management Methods
4. Project Schedule Management
5. Project Risk Management
6. Project Management Capstone

Industries
Enterprises
Curriculum Architecture

- Learning Goals
- Competencies
- Descriptors
- Assessments
- Rubrics
### Summary of Differences between CBE and Traditional

<table>
<thead>
<tr>
<th>CBE</th>
<th>Traditional</th>
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</thead>
<tbody>
<tr>
<td>Program can be aligned with market requirements.</td>
<td>Program is generally knowledge-based.</td>
</tr>
<tr>
<td>Competencies are specified.</td>
<td>Courses are specified.</td>
</tr>
<tr>
<td>Study pace may vary for different students.</td>
<td>Study pace is generally the same for all students.</td>
</tr>
<tr>
<td>Financial aid is based on acquiring competencies.</td>
<td>Financial aid is based on time spent in the program.</td>
</tr>
<tr>
<td>Since the program is individualized, it is suitable for online mode and adults.</td>
<td>The program is generally offered face to face.</td>
</tr>
</tbody>
</table>