School of Engineering and Applied Science

Oxford – based Faculty and Staff Meeting

February 9, 2010
Jonathan Kerr  
New Executive Director of PSE Foundation

- Western Michigan graduate
- 30 years of experience in the industry, management positions with American Maize-Products, Black Clawson, Ahlstrom Machinery and Andritz, Inc.
- Active member of TAPPI, Ohio TAPPI's Chairman (1992-93), Paper & Board Division Chairman (2000-02); TAPPI's Board of Directors from (2003 – 06), TAPPI Fellow (2006)
School of Engineering and Applied Science

SEAS response
to Miami University Strategic Priorities
Step I - Setting the stage

http://seasnews.eas.muohio.edu/my-seas/
OUTLINE

1. President’s response to the Report of the Strategic Priorities Task Force
2. Recommendations aimed at improving efficiency and effectiveness of Miami’s core educational efforts
3. Recommendations related to new revenue opportunities
4. SEAS (Oxford only) priorities for Spring ‘11
MIAMI UNIVERSITY STRATEGIC PRIORITIES

Final Report of Strategic Priorities Task Force submitted to President Hodge on October 14, 2010

President’s response to the Report presented to MU Board of Trustees on December 10, 2010: 36 recommendations

Selected recommendations:
IMPROVE EFFICIENCY AND EFFECTIVENESS OF MIAMI’S CORE EDUCATIONAL EFFORTS

I. Streamlining undergraduate curriculum

II. Graduate education and research

III. Teaching capacity

IV. Administrative changes
I. STREAMLINING CURRICULUM

- Reduce the number of undergraduate sections by at least 200 (#19)
- Conduct a systematic University-wide evaluation of majors for viability with the goal of reducing the overall number of majors (#20)
Reduce the number of undergraduate sections

University goals

• Reduce extra sections of courses that have lower than expected enrollments

• Identify some courses that can be offered less frequently

• Identify some classes that can be co-listed
Reduce the number of undergraduate sections

SEAS initial response

Spring ‘11: Conduct a systematic review of the size of undergraduate sections offered in AY 2008/09 – 2010/11; focus on under‐enrolled sections and courses.
Analysis of undergraduate course sections with fewer than 20 students –SEAS vs. MU

<table>
<thead>
<tr>
<th>Category</th>
<th>Fall 2008</th>
<th>Fall 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEAS All sections offered</td>
<td>120</td>
<td>123</td>
</tr>
<tr>
<td>SEAS Sections with less than 20</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>SEAS % of all sections</td>
<td>34%</td>
<td>26%</td>
</tr>
<tr>
<td>MU All sections offered</td>
<td>2607</td>
<td>2511</td>
</tr>
<tr>
<td>MU Sections with less than 20</td>
<td>n/a</td>
<td>859</td>
</tr>
<tr>
<td>MU % of all sections</td>
<td>n/a</td>
<td>34%</td>
</tr>
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</table>
Conduct a systematic University-wide evaluation of majors for viability with the goal of reducing the overall number of majors

**University goal**

Identify majors that have a large number of under-enrolled courses that can be considered for consolidation or elimination
Conduct a systematic University-wide evaluation of majors for viability with the goal of reducing the overall number of majors

SEAS response

• Two majors (PSE, SA) eliminated recently

• Conduct evaluation of majors for viability with emphasis on:
  o Manufacturing Engineering
    ▪ Unduplicated Head Count (primary majors): 6
    ▪ Majors: 42
  o Technical specialties in Engineering Management
## Engineering Management

<table>
<thead>
<tr>
<th>Technical Specialty</th>
<th>Number of majors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undecided</td>
<td>33</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>57</td>
</tr>
<tr>
<td>Environment</td>
<td>26</td>
</tr>
<tr>
<td>System Analysis (new)</td>
<td>13</td>
</tr>
<tr>
<td>Paper Science</td>
<td>5</td>
</tr>
<tr>
<td>Electronics &amp; Computing (new)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>136</strong></td>
</tr>
</tbody>
</table>
II. GRADUATE EDUCATION AND RESEARCH

- Eliminate support for graduate programs that do not meet performance criteria (#22)
- Maintain and enhance a smaller number of high-quality graduate programs that provide assistantships (#23)
Engineering, Computing, and Nursing in a student-centered, vibrant, interactive environment

Maintain and enhance a smaller number of high-quality graduate programs that provide assistantships

University goal

- Offer an array of high quality graduate programs that meet the criteria of selective excellence in graduate education
Maintain and enhance a smaller number of high-quality graduate programs that provide assistantships

SEAS response

- Enhance and maintain a smaller number of high-quality graduate programs in CPE, CSE, and CS&E that provide graduate and research assistantships
III. TEACHING CAPACITY

• Enforce the existing faculty workload policy (#17)

• Increase the use of lecturers and clinical faculty to no more than 20% of the total number of tenure-line faculty (#16)

• Change the current retire / rehire practice effective July 1, 2012 (#18)
Enforce the existing faculty workload policy

• SEAS workload policy approved in March 2009
• Monitoring of the workload since Fall ’09
• New SEAS – wide template being developed
• Implementation of individualized workload policy – AY 2011-12
Increase the use of lecturers and clinical faculty to no more than 20% of the total number of full-time, tenure-line faculty

University goals

• Replace 10 retiring faculty with 8 lecturers / clinical faculty in each of the next four fiscal years

• Each division will identify their plan for adding lecturers and clinical faculty.
Increase the use of lecturers and clinical faculty to no more than 20% of the total number of full-time, tenure-line faculty

SEAS

• Three anticipated retirements between 2010 and 2013

• 3 clinical faculty/lecturers positions between 2011 and 2013 (1-MME, 2 – CSE)
III. TEACHING CAPACITY

Overall impact on Oxford faculty in 2014

Next 4 years: 200 faculty vacancies

Replace: 40 with 32 lecturers (8 reduced positions)
Replace: 80 (20 replacements per year)
Reduce: 12 recovered positions through retirements
TBD: 68 positions
Total: 200 positions
**SEAS RESPONSE : ATYPICAL**

Anticipated growth: Fall 2010 – Fall 2014

<table>
<thead>
<tr>
<th>Department</th>
<th>Fall 2010 Undergrad. Students</th>
<th>Fall 2011 Full time faculty</th>
<th>Fall 2014 Undergrad Students</th>
<th>Fall 2014 Tenure-line faculty / lect.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPE</td>
<td>213</td>
<td>8</td>
<td>275</td>
<td>11*</td>
</tr>
<tr>
<td>ECE</td>
<td>124</td>
<td>8</td>
<td>200</td>
<td>8*</td>
</tr>
<tr>
<td>MME</td>
<td>356</td>
<td>13</td>
<td>350</td>
<td>14*</td>
</tr>
<tr>
<td>CSE</td>
<td>181</td>
<td>16</td>
<td>300</td>
<td>16**</td>
</tr>
<tr>
<td>Not assigned</td>
<td>118</td>
<td></td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>992</td>
<td>45</td>
<td>1200</td>
<td>49</td>
</tr>
</tbody>
</table>

* criterion: undergraduate student/faculty ratio = 25
** including 2 CSE 148 lecturers, 1 faculty to strengthen grad. instruction and 1 to support Comp. Eng. program

*Engineering, Computing, and Nursing in a student-centered, vibrant, interactive environment*
IV. ADMINISTRATIVE CHANGES

• Reduce the number of departments/programs through consolidation and reorganization (#12)

• Streamline administrative support to academic units (#15)
Reduce the number of departments/programs through consolidation and reorganization

• Emerging consensus: consolidations rather than eliminations
• Driving force: on-going discussions in CAS, several mergers under considerations
Reduce the number of departments/programs through consolidation and reorganization

University goal and action

• Proceed with a reorganization of academic units to provide more collaboration, interdisciplinary work and efficiency. Such reorganization should reduce the number of departments

• The deans will identify potential cost savings that can be achieved in departmental and program administration/reorganization

SEAS Response:
Anticipated growth; will serve 20% more students at a modestly higher cost
Streamline administrative support to academic units

University goal

- Restructure the support staff in academic units. Consider the support being based on buildings rather than departments and programs. Consider the use of more 9-month positions and more effective use of student workers.
Streamline administrative support to academic units

SEAS

- Building based-model not applicable to EGB
- Development of a hybrid model in Benton in progress
Selected recommendations

**REVENUE ENHANCING INITIATIVES**

• Investigate other sources to generate additional tuition revenue in support of academic programming (#6)

• Increase the number of revenue-generating graduate programs and tuition paying graduate students (#24)

*for further discussions in Oxford Leadership Council (OLC) and departmental meetings in S’11*
Selected recommendations

**REVENUE ENHANCING INITIATIVES**

• Implement fees for course schedules in excess of 18 credit hours and possibly for expensive academic programming (#4)

• Encourage cooperation among campuses while optimizing new revenue opportunities on all campuses (#5)
SEAS PRORITIES (Oxford only)
Spring 2011

MU Strategic Priorities: Recommendations of the highest importance for SEAS for discussions in S’11

- Workload policy (#17)
- Undergraduate sections (#19)
- Undergraduate majors (#20)
- Graduate programs (#23)
- Revenue enhancing initiatives (#6 & #24)
Priorities transcending departmental boundaries

• ABET accreditation of Oxford-based programs
  – 30-day response
• Secure support for the new bioengineering program
  – CPE search
  – Analysis of future needs
• Secure future offering of CSE 148 Computing in Business by SEAS
Implementation of SEAS 2009-2013 strategic plan

- Sustain efforts in the area of recruitment/retention
- Enhance first year experience
- Enhance undergraduate research
- Enhance global experience—start capitalizing on Miami Global Plan
Other initiatives

- SEAS Leadership Institute / Partnership with Lockheed Martin
- SEAS – IT strategic plan and implement its first phase
- SEAS Faculty Governance
- Guidelines for Promotion to Full Professor
What next?

- Series of departmental meetings (week of Feb. 28)
- OLC focus on strategic recommendation throughout Spring and Summer 2011
- Series of departmental meetings (April) – focus on graduate programs and research
- SEAS preliminary response to strategic recommendations and evolving budgetary reality (August 2011)
- SEAS final response (October 2011)