MEMORANDUM

January 3, 2011

To: Dean Peggy Miller

Copy to: Dean Al Sacco, Jr.

From: Jharna Chaudhuri, Chair, Department of Mechanical Engineering

Subject: Post Graduate Program Review – One Year Report

This letter comprises one year post graduate review report, as well as action plans. Our report is grouped in the same five categories as used in the response report and is intended to mainly emphasize the action items.

Program Overview and Vision:
(Rating: Good)

1. Develop a five-year strategic plan
The faculty in the Mechanical Engineering (ME) department had two full day retreats (one during the spring and one during the fall semester, 2010) to discuss the strategic planning draft report prepared by the strategic planning committee and to give recommendations for changes. The plan will be approved in a faculty meeting during spring, 2011 semester. Attached, please find the draft of new strategic plan which is aligned along the College of Engineering as well as Texas Tech’s strategic plan, and also summary of spring, 2010 retreat discussion. The plan includes the mission, vision, goals, strategies and benchmarks.

Faculty Productivity:
(Rating: Good)

1. Encourage interdisciplinary and collaborative research on campus
Many faculty in the department collaborate with other faculty in the department as well as from colleges of engineering, arts and sciences, and education, and HSC. The faculty have continued and expanded on interdisciplinary research activities.
2. **Even distribution of graduate student advising among faculty**
   Attached, please find the current graduate student distribution to faculty. Both MS and Ph. D. students are more evenly distributed to faculty except the newly enrolled Raytheon Ph. D. students. They all enroll under the Director of the program, Dr. Atila Ertas in the first semester. Dr. Ertas will distribute them to different faculty advisors at a later semester.

   **Establish a variable teaching load policy**
   A variable faculty teaching load has been already instituted to encourage research incentive faculty to spend more time on research and proposal writing. Attached, please find the ME faculty load policy.

3. **Recruit excellent faculty with competitive start up package**
   The ME department recruited four new faculty (two replacements and two new positions) in AY 2011. All of them were excellent hires (Drs. Blawzdziewicz, Christopher, Lillian and Qiu) with a competitive start up package.

4. **Seek opportunities to establish Endowed Chairs in Mechanical Engineering**
   The department is currently searching to fill the Whitacre Endowed Chair for energy. We wish to have more Endowed Chair positions in the department.

**Quality and Quantity of Graduate Students and Graduates:**
*(Rating: Satisfactory)*

1. **Recruit high quality graduate students with more emphasis on Ph. D. students recruitment**
   The department will work with the college and use a national recruiting strategy to hire high quality Ph. D. and MS students. The department is already recruiting students with high caliber into the Ph. D. program and we will continue this trend. We currently have 120 graduate students with more than 50% or 65 students being Ph. D. students. We like to increase this ratio further and have more Ph. D. and less MS students. The department will continue inviting and bringing prospective students for on campus visits. Below is the data on number of applications received and students accepted for fall, 2010:

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<tr>
<th></th>
<th>PhD</th>
<th>MS</th>
<th>Total</th>
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<tbody>
<tr>
<td>Applications received</td>
<td>14</td>
<td>25</td>
<td>39</td>
</tr>
<tr>
<td>Students admitted</td>
<td>4</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Students Attended</td>
<td>4</td>
<td>5</td>
<td>9</td>
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</tbody>
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**Curriculum and Program of Study:**
1. **Prepare a Graduate Handbook both in electronic and hard copy format**
   The department has prepared a graduate Handbook (attached).

2. **Institute a Ph. D. preliminary examination**
   The faculty has decided to implement an early preliminary examination for the Ph. D. program. The content of the Ph. D. examination will be finalized by the faculty in spring, 2011. The preliminary examination will be given to all Ph. D. students at the end of their first year of study.

3. **Provide competitive financial support to graduate students**
   Currently 80 graduate students are supported with competitive financial supports in terms of RA, TA, Provost’s Fellowships, and Dean’s Fellowships, and 10 graduate students are receiving scholarships. These are quite large numbers. The department hopes that Provost’s and Dean’s Fellowships and graduate school recruitment packages, in addition to more TA and research grant supports, will continue to fulfill its mission of supporting 100% graduate students.

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**Facilities and Resources:**
(Strength: Satisfactory)

1. **Seek additional space for faculty and graduate student offices and research laboratories**
   The Me department is expanding and needs more faculty and graduate student office spaces and research laboratory spaces. The college has recently received the Mass Communication building in order to expand. It will be easier if the departments in adjacent buildings move to the Mass Com. Building and the ME department is given additional spaces in the adjacent buildings.