General Education Annual Course Assessment Form

Course Number/Title __ME 195a/b__  GE Area: approved for S and V when combined with Engr 195a/b

Results reported for AY __15-16________ # of sections ____5_____ # of instructors ____5______

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Department Chair: ___Nicole Okamoto____  College: _____Engineering________

Part 1

(1) What SLO(s) were assessed for the course during the AY?  Area S SLO 2, Area V SLO 1 (all SLO’s were evaluated in Engr 195a/b)

(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

Mechanical Engineering was approved by BOGS for a different set of writing assignments in their senior project courses than other engineering departments. Learning activities in ME 195a and b have been used to show students how the issues raised through the S and V learning objectives introduced in Engr 195a/b relate to the everyday work they will be doing as engineers. To help students see this connection, the assignments all directly relate to students’ senior design projects. Each semester included one individual writing assignment and one as a team. The minimum number of words written for these assignments combined was 1500 individual plus 1500 as a team (in addition to words written in Engr 195a/b).

ME 195a/b class time devoted to GE topics over the two semesters was equivalent to eight 50-minute class periods. Student teams had one meeting with instructors each semester to discuss their writing assignments. Students also attended three seminars entitled, Impact of Technology on Society, On Global Economy and Social Impacts, and Energy, Environment and Global Impacts. Students took a quiz on the content of the last two seminars.

Data for the four assignments are shown in Table 1. For some class sections, students were allowed to revise and resubmit their individual writing assignment for ME 195a based on instructor feedback, resulting in strong scores. Assignments were given in all sections, and the results presented are an average for the five sections. An assignment was rated as “meets expectations” if the grade was a C- or better. An assignment was rated as “exceeds expectations” if they received an A or A-. Only average scores are given for the two quizzes (based on two of the presentations), which were on a low level on Bloom’s taxonomy.

Data show good achievement of SLO 2 for S and acceptable achievement of SLO 1 for V. In general, students do a thorough job thinking through safety and environmental implications of their projects as well as social and cultural implications of their projects here within the United States. However, they have a harder time discussing global implications, which are covered in the ME 195b assignments. While the data for SLO 1 for V look promising, for many students their achievement was barely acceptable, with discussions that did not show as thorough an understanding of different cultures outside the US as we might hope. The higher scores for the individual writing assignment in ME 195a may also be because that assignment is introduced with a one-hour presentation with detailed examples of the kinds of discussions to include.

In this second year of GE certification, instructors were more comfortable with the GE elements of their classes, providing more thorough grading – and readily turning in assessment results of their courses. As a result, we saw a greater range of grades for assignments than in the previous year. One instructor in 14-15 did not provide any feedback to students on assignments, and that instructor was removed from teaching ME 195a/b in 15-16.

(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)

1. On the final report grading rubric for ME 195a and b, the points that students can achieve for sections
Table 1: Summary of Results of GE Writing Assignments in ME 195a and b

<table>
<thead>
<tr>
<th></th>
<th>Individual Writing Assignment, ME 195a (SLO 2, area S)</th>
<th>Social Impacts Final Report Score (SLO 2, area S)</th>
<th>Individual Writing Assignment, ME 195b (SLO 1, area V)</th>
<th>Global Impacts Final Report Score (SLO 1, area V)</th>
<th>Global Economy/Impact Quiz (SLO 1, area V)</th>
<th>Global Energy Quiz (SLO 1, area V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>84%</td>
<td>75%</td>
<td>84%</td>
<td>64%</td>
<td>75%</td>
<td>69%</td>
</tr>
<tr>
<td>Meets Expectations</td>
<td>66%</td>
<td>37.5%</td>
<td>43%</td>
<td>26.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exceeds Expectations</td>
<td>29.5%</td>
<td>37.5%</td>
<td>41%</td>
<td>37.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does Not Meet Expectations</td>
<td>4.5%</td>
<td>25%</td>
<td>16%</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

related to social and global impacts will be increased. Students focus very heavily on the technical aspects of their reports, and since the scoring values for the global and social impacts sections are low, they do not do as thorough job as they should. This is particularly true for the global impacts section of the report written during the second semester when students have been stressing to build and test their designs.

2. Not all instructors used the grading rubrics for the individual writing assignments. Instructors will be required to use the same grading rubric for the individual writing assignments in 16-17. This should result in more uniform grading between sections.

3. To encourage students to think more deeply about these issues, instructors will be adding additional coverage. During the off weeks for Engr 195a and b (six weeks total over two semesters), students in ME 195a/b sections will meet in the Engineering Auditorium for a five weeks for interactive sessions with ME faculty, and in the remaining week students will work through an online module. Since the number of words written in Engr 195a/b is being reduced for the 2016-17 year, four additional individual writing assignments that cover the other S and V SLO’s will be assigned in ME 195a/b (two extras each semester).

Part 2

(4) Are all sections of the course still aligned with the area Goals, Student Learning Objectives (SLOs), Content, Support, and Assessment? If they are not, what actions are planned? Yes

(5) If this course is in a GE Area with a stated enrollment limit, please indicate how or how practice and revisions in writing will be addressed with larger sections, particularly how students are receiving thorough feedback on the writing which accounts for the minimum word count in this GE category.

All sections except one were within enrollment limits of 40 students. The remaining section had 42, which was within 5% of the enrollment limit. These small section sizes give instructors the time to provide feedback to students. In addition to providing feedback on writing assignments (using detailed rubrics as well as written comments), all instructors schedule regular meetings with student teams of 3-6 students. Graders with a background in the humanities are being hired for the 16-17 year to provide additional feedback to students on essay grammar and structure.