**Program Assessment Plan, 2013-2018**

**Department/Program: \_\_\_Mechanical Engineering\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Option: \_\_N/A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Assessment Activity**  Specify type of assessment activity and SLO (may refer by number to list below) | **Time Period** | **Direct Measures**  Describe student work to be used to provide evidence for outcome | **Indirect Measures**  Describe instrument: survey, interview | **Where will evidence be gathered?**  Course name, internship, etc | **What results would indicate success or failure?**  What is the expected level of achievement? | **Status** |
| MOODLE Based testing for outcomes that lend themselves to quantifiable questions | Every course, every semester | Specific questions that pertain to individual outcomes | None | All courses except for senior design, 486A, 486B | **Success**: maintaining or improving from a baseline minimum score  **Failure**: decreasing scores | In development |
| Use of EAS to evaluate final reports of senior design teams (486A/B, Nearly all outcomes apply to these culminating activities | Spring/Fall Semester as appropriate depending on course version and cycle completion | None | Grading of achievement of outcomes by faculty teams reviewing final reports | 486A, 486B courses | Overall assessment scores for each outcome graded according to rubrics established for each outcome. | In development |
| Optional Outcomes L through O may be eliminated or combined into required outcomes A through K | Fall 2014 |  |  |  |  | In development |
| Only courses below 5xx that are required or elective in the program will be considered. |  |  |  |  |  |  |
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**Program Learning Outcomes List**

List Program Learning Outcomes here:

Outcome a: an ability to apply knowledge of mathematics, science and engineering.

Outcome b: an ability to design and conduct experiments, as well as to analyze and interpret data.

Outcome c: an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

Outcome d: an ability to function on multi-disciplinary teams.

Outcome e: an ability to identify, formulate, and solve engineering problems.

Outcome f: an understanding of professional and ethical responsibility.

Outcome g: an ability to communicate effectively.

Outcome h: the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.

Outcome i: a recognition of the need for, and an ability to engage in life-long learning.

Outcome j: a knowledge of contemporary issues.

**Outcome k:** an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Curriculum Alignment: Resources for Assessment**

Which courses or activities provide student learning opportunities for the program learning outcome?

Specify whether the material is (I) introduced, (D) developed or (M) mastered.

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| Department/Program Courses | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 |
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| Other activities or indirect measures | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 |
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