Program: B.S. in Industrial and Systems Engineering.

1. Student Learning Objectives
The Department of Industrial and Systems Engineering (ISYE) has developed its learning objectives (or program outcomes) to be consistent with Accreditation Board of Engineering and Technology (ABET) criteria. The learning objectives are:

A. An ability to apply knowledge of mathematics, science, and engineering to Industrial and Systems Engineering.
B. An ability to design and conduct experiments as well as analyze and interpret data.
C. An ability to design a system component or process to meet design needs within realistic constrains such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
D. An ability to function on multi-disciplinary teams.
E. An Ability to identify, formulate, and solve engineering problems.
F. An understanding of professional and ethical responsibility.
G. An ability to communicate effectively.
H. A broad education necessary to understand the impact of engineering solutions in a global and social context.
I. Recognition of the need for, and an ability to engage in life-long learning.
J. Knowledge of contemporary Issues.
K. Graduates have an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

The operational definition of each program outcome is presented in Table 1.
2. Explanation of Methods

Table 2 presents the different direct and indirect methods used to assess the different learning objectives. The table also presents a brief description of each method used, a timeline for implementation, the person responsible, and the objectives that each method addresses.

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Timeline</th>
<th>Person Responsible</th>
<th>Objectives Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior design project appraisals</td>
<td>Evaluation of senior design projects by the instructor, faculty members, and industry sponsors.</td>
<td>Fall and Spring</td>
<td>Instructor</td>
<td>A, B, C, D, E, F, G, H, I, J, K</td>
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<tr>
<td>Course embedded assessments</td>
<td>Evaluation of student’s performance on specific activities (e.g. assignments, quizzes, papers, projects, and exams).</td>
<td>Fall and Spring</td>
<td>Instructor</td>
<td>See Tables 3 and 4.</td>
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<td>Exit Survey</td>
<td>Graduating student’s feedback on how well they achieved the program outcomes.</td>
<td>Fall and Spring</td>
<td>Chair</td>
<td>A, B, C, D, E, F, G, H, I, J, K</td>
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<tr>
<td>Co-op or internship survey</td>
<td>Evaluation of student’s performance during the internship.</td>
<td>Fall, Spring, and Summer</td>
<td>Instructor</td>
<td>A, B, C, D, E, F, G, J, K</td>
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<tr>
<td>Employer Survey</td>
<td>Evaluation of senior design project, internship, or co-op by employers.</td>
<td>Fall, Spring, and Summer</td>
<td>Instructor/Employer</td>
<td>A, B, C, D, E, F, G, J, K</td>
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