ON-CAMPUS PROGRAM ASSESSMENT
Program Mission, Program Educational Objectives, and Program Outcomes

<table>
<thead>
<tr>
<th>Degree Program:</th>
<th>MS ISE</th>
<th>Location:</th>
<th>SJSU Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Coordinator:</td>
<td>Dr. Jacob Tsao</td>
<td>Phone/ Email:</td>
<td>4-4088/ <a href="mailto:Jacob.tsao@sjsu.edu">Jacob.tsao@sjsu.edu</a></td>
</tr>
</tbody>
</table>

**PROGRAM MISSION:**

Program Mission: This Master of Science in Industrial and Systems Engineering program is to provide ISE graduate students a strong foundation and the knowledge required to operate a manufacturing or service organization efficiently, effectively and safely. Through the industrial and systems engineering education, the graduates will be able to develop quality metrics for the organization’s products and services and performance measures for its internal operations, collect data to measure and monitor the quality and performance, improve the performance and hence quality, and utilize the latest computer-based analytical, modeling and design tools.

**PROGRAM EDUCATIONAL OBJECTIVES (PEOs):** *PEOs should be aligned with the Program Mission*

<table>
<thead>
<tr>
<th>Program Educational Objectives</th>
<th>List PEOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEO 1</td>
<td>Develop quality metrics for organization’s products or services and performance measures for its internal operations;</td>
</tr>
<tr>
<td>PEO 2</td>
<td>Collect data to measure and monitor the quality and performance;</td>
</tr>
<tr>
<td>PEO 3</td>
<td>Improve the performance and hence the quality;</td>
</tr>
<tr>
<td>PEO 4</td>
<td>Utilize the latest computer-based analytical, modeling and design tools.</td>
</tr>
</tbody>
</table>

**PROGRAM OUTCOMES (Pos):** *Pos should be aligned with the PEOs*

<table>
<thead>
<tr>
<th>Program Outcomes</th>
<th>List POs</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO 1</td>
<td>Function effectively and provide leadership within organization;</td>
</tr>
<tr>
<td>PO 2</td>
<td>Form, facilitate, lead, and coordinate and participate in teams;</td>
</tr>
<tr>
<td>PO 3</td>
<td>Understand organizational processes and behaviors;</td>
</tr>
<tr>
<td>PO 4</td>
<td>Collect, analyze, and interpret data;</td>
</tr>
<tr>
<td>PO 5</td>
<td>Approach unstructured problems and synthesize and design solutions for these problems;</td>
</tr>
<tr>
<td>PO 6</td>
<td>Evaluate the impact of these solutions in the broader context of organization and society</td>
</tr>
<tr>
<td>PO 7</td>
<td>Effectively present and sell solutions in the form of written, oral and electronic data;</td>
</tr>
<tr>
<td>PO 8</td>
<td>Operate the organization effectively and efficiently by applying knowledge and computational skills acquired in the program;</td>
</tr>
<tr>
<td>PO 9</td>
<td>Accomplish life-long growth within the field/profession of ISE.</td>
</tr>
</tbody>
</table>
PROGRAM EDUCATIONAL OBJECTIVES TO PROGRAM OUTCOMES:

<table>
<thead>
<tr>
<th>PEOs</th>
<th>PO 1</th>
<th>PO 2</th>
<th>PO 3</th>
<th>PO 4</th>
<th>PO 5</th>
<th>PO 6</th>
<th>PO 7</th>
<th>PO 8</th>
<th>PO 9</th>
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<tbody>
<tr>
<td>PEO 1</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>PEO 2</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>PEO 3</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
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<td>X</td>
<td>X</td>
<td>X</td>
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PROGRAM OUTCOMES TO COURSE LEARNING OUTCOMES:

<table>
<thead>
<tr>
<th>Course No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Assessment Method</th>
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<td>X</td>
<td>X</td>
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<td></td>
<td></td>
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<td>Final Exam and Case Study</td>
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<td>X</td>
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<td></td>
<td>Exams and Case Study</td>
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<td>Exams</td>
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<tr>
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<td>X</td>
<td>X</td>
<td>X</td>
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<td>Project Report</td>
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</table>

Program Educational Objectives (PEOs) Timeline Assessment

Please complete the schedule of assessment activities below by listing all Program Educational Objectives (PEOs) related to the following activities: Alumni Assessment, Employer Assessment, and others by number down the left column and indicating when data were/will be collected (C) and when they were/will be discussed (D) by your faculty. You can also schedule/track program changes resulting from your assessment activities by indicating an “I” (implemented changes) where relevant

<table>
<thead>
<tr>
<th>PEOs</th>
<th>F10</th>
<th>S11</th>
<th>F-</th>
<th>S-</th>
<th>F-</th>
<th>S-</th>
<th>F-</th>
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</thead>
<tbody>
<tr>
<td>1-4</td>
<td>C</td>
<td>D</td>
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Program Outcomes (POs) Timeline Assessment

Please complete the schedule of assessment activities below by listing all Program Outcomes (POs) related to the following activities: Alumni Assessment, Employer Assessment, and others by number down the left column and indicating when data were/will be collected (C) and when they were/will be discussed (D) by your faculty. You can also schedule/track program changes resulting from your assessment activities by indicating an “I” (implemented changes) where relevant

<table>
<thead>
<tr>
<th>POs</th>
<th>F06</th>
<th>S07</th>
<th>F07</th>
<th>S08</th>
<th>F08</th>
<th>S09</th>
<th>F09</th>
<th>S10</th>
<th>F10</th>
<th>S--</th>
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</thead>
<tbody>
<tr>
<td>1-9</td>
<td>C, D</td>
<td>I</td>
<td>C, D</td>
<td>I</td>
<td>C, D</td>
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