

## Mathematical Sciences Institutional (ILO), Program (PLO), and Course (SLO) Alignment

Use the checklists provided to evaluate your SLO statements. Please add or revise PLO and SLO statements directly on this form.

Or, if you prefer to make changes on the electronic version contact your Facilitator Junko Forbes, or Angie Snider in your Division Office, to have the grid emailed to you. When SLO, PLO and ILO alignment changes are made, please make changes in red.

Return the completed grid to your Facilitator by Friday, Nov 8<sup>th</sup>.

<b>Program: Pre-Engineering</b>	<b>Number of Courses:</b> <b>2</b>	<b>Date Updated</b> <b>1.26.13</b>	<b>Submitted by :</b> Jill Evensizer Ext. 5210
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<b>ILO Rating Rubric</b>
<p><b>4</b> - A major focus of the course. Direct instruction is provided. Students are evaluated multiple times (and possibly in various ways) throughout the course.</p> <p><b>3</b> - An important part of the course. Some direct instruction is provided and students are evaluated on the concepts once or twice within the course.</p> <p><b>2</b>- Only a minor focus of the course. Some instruction is given in the area but students are not formally evaluated on the concepts.</p> <p><b>1</b>- May be tangentially part of the class, but is not directly taught or evaluated or is not part of the course at all.</p>

Institutional Learning Outcomes (ILOs)	I. Content Knowledge	II. Critical, Creative, and Analytical Thinking	III. Communication and Comprehension	IV. Professional and Personal Growth	V. Community and Collaboration	VI. Information and Technology Literacy
<b>Overall Program Rating</b> Rate each from 1-4 based on above rubric	3	4	3	2	2	2

<p><b>Program Level SLOs</b> A minimum of 3 and maximum of 6 PLOS. There are, however, exceptions. For example, if department faculty have developed one or two comprehensive PLO statements that reflect the program mission and covers the major components and the overarching goals of the program, they may present them to their Dean and Facilitator for approval as is. In cases where the facilitator or dean or faculty disagree with the rigor of the statements, the PLO statement will be forwarded to the Assessment of Learning Committee (ALC) for review and recommendations.</p> <p style="text-align: center;"><i>Include PLO #, Short Title, and PLO statement. Example: PLO #2 Ethics and Professionalism</i></p>	<b>ILOs to PLOs Alignment</b> (Rate 1-4)					
	I	II	III	IV	V	VI

<p><b>PLO #1 Academic Success Strategies</b> Students will analyze the preparation, assess the cognitive skills, and apply academic success strategies required in engineering.</p>	4	4	3	2	2	2
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<p><b>PLO #2 Solving Applied Problems in Engineering</b> Students will apply principles from mathematics, physics, and chemistry to solve applied problems in engineering.</p>	4	4	3	2	2	2
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<b>Course Level SLOs</b> A minimum of 3 and maximum of 6 SLOs. There are, however, exceptions. For example, if department faculty have developed one or two comprehensive SLO statements that cover the major components and the overarching goals of the course, they may present them to their Dean and Facilitator for approval as is. In cases where the facilitator or dean or faculty disagree with the rigor of the statements, the SLO statement will be forwarded to the Assessment of Learning Committee (ALC) for review and recommendations. <i>Include SLO #, Short Title, and SLO Statement Example: Math 170 SLO #3 Vectors and Complex Numbers.</i>	<b>Course to PLO Alignment</b> <i>Mark with an X if you will use the course when assessing your PLO.</i>			<b>ILOs to Course SLOs Alignment</b> (Rate 1-4)					
	P1	P2	P3	I	II	III	IV	V	VI
<b>ENGR 1 SLO #1 Introduction to Engineering SLO #1 Analyze Engineering Profession</b> Analyze the preparation, training, practice, obligations, and ethics required in the engineering profession.	X			3	4	3	3	2	3
<b>ENGR 1 Introduction to Engineering SLO #2 Apply Academic Success Strategies:</b> Assess the cognitive skills and apply academic success strategies related to the study of engineering.	x			3	4	3	3	2	2
<b>ENGR 9 Engineering Mechanics – Statistics: SLO #1: Solve Equilibrium Problems</b> Solve equilibrium problems in two and three dimensions using algebraic or trigonometric methods.		X		3	4	2	2	2	2
<b>ENGR 9 Engineering Mechanics – Statistics: SLO #2 Use Diagrams to Solve Problems</b> Draw diagrams and determine distributed forces, shear forces, and moments in beams.		X		3	4	3	2	2	2