



Academic year 2024-2025
Doctor of Engineering - DEGR-DEGR Learning Outcomes

Student Learning Outcome #1 **MET**

Students will demonstrate an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

MEASURES	RESULTS	ACTIONS
----------	---------	---------

<p>ENGR 6604 Dissertation</p> <p>Direct - Assignment</p> <p><i>Engineering Dissertation II: ENGR 6604</i></p> <p>Target</p> <p>75% of the students will achieve a score of 3 out of 4 or above.</p> <p>SLO1-rubricpdf.pdf</p>	<p>MET</p> <p>ENGR 6604 Dissertation</p> <p>■ Exceeded</p>  <p>0% 100%</p> <p><i>Values are not shown when too close to each other. Click or use arrow keys to see details.</i></p> <p>Exceeded: 100%</p> <p>Met Total: 100%</p> <p>Not Met Total:</p> <p>Analysis</p> <p>1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 1.</p> <p>2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the dissertation and final oral defense and attached rubric.</p> <p>3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcome 1 based on assessment data results using the dissertation and final oral defense and attached rubric.</p> <p>4. Industrial and Systems Engineering Department The DE program had 7 students and all have either met or exceeded expectation. Six out of the 7 students exceeded expectation for SLO- 1 based on assessment data results using the dissertation and final oral defense and attached rubric.</p> <p>5. Mechanical Engineering No DE student graduated this year, and therefore, no data is collected.</p>	<p>Other - [Electrical and Computer Engineering Department]</p> <p>Not Started</p> <p>No actions recommended by the department for the upcoming assessment cycle.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Chemical and Biomolecular Engineering Department]</p> <p>Not Started</p> <p>No actions recommended by the department for the upcoming assessment cycle.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Civil and Environmental Engineering Department]</p> <p>Not Started</p> <p>The current target is set at 3 out of 4. The target will be reviewed for future assessment cycles 3.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Mechanical Engineering Department]</p> <p>Not Started</p> <p>No data.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Industrial and Systems Engineering Department]</p> <p>Not Started</p> <p>No actions recommended by the department for the upcoming assessment cycle.</p> <p>Recommended Due Date: 09/18/2025</p>
<p>Qualifying Exam</p> <p>Direct - Exam (Course)</p> <p>Target</p>	<p>MET</p> <p>Qualifying Exam</p> <p>■ Exceeded</p> 	<p>Other - [Mechanical Engineering Department]</p> <p>Not Started</p> <p>No data.</p> <p>Recommended Due Date: 09/18/2025</p>

75% of the students will achieve a score of 3 out of 4 or above.	0%	100%	Other - [Chemical and Biomolecular Engineering Department]
	Values are not shown when too close to each other. Click or use arrow keys to see details.		Not Started
	Exceeded:	100%	No actions recommended by the department for the upcoming assessment cycle.
	Met Total:	100%	Other - [Electrical and Computer Engineering Department]
	Not Met Total:		Not Started
	Analysis		No actions are recommended by the department for the upcoming assessment cycle.
	1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 1.		Recommended Due Date: 09/18/2025
	2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the Qualifying Exam and attached Rubric.		Other - [Civil and Environmental Engineering Department]
	3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcome 1 based on assessment data results using the Qualifying Exam and attached Rubric.		Not Started
	4. Industrial and Systems Engineering Department The DE program had 7 students and all have either met or exceeded expectation. Six out of the 7 students exceeded expectation for SLO- 1 based on assessment data results using the Qualifying Exam and attached Rubric.		Implement procedures to ensure timely and complete data reporting for future cycles
5. Mechanical Engineering No data is collected since there is no student taking the exam.		Recommended Due Date: 09/18/2025	
		Other - [Industrial and Systems Engineering Department]	
		Not Started	
		No actions are recommended by the department for the upcoming assessment cycle.	
		Recommended Due Date: 09/18/2025	

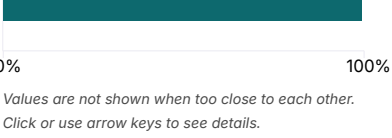

Conclusion

Based on the assessment data collected from all 5 departments using the dissertation, oral defense, and qualifying exam results, Student Learning Outcome 1 is attained by the students in the DE program.

Student Learning Outcome #2 MET

Students will demonstrate an ability to develop and conduct appropriate experimentation or numerical simulation, analyze and interpret data, and use engineering judgment to draw conclusions and produce solutions appropriately.

MEASURES	RESULTS	ACTIONS
ENGR 6604 Dissertation Direct - Assignment Engineering Dissertation II: ENGR 6604	MET ENGR 6604 Dissertation ■ Exceeded <div></div>	Other - [Industrial and Systems Engineering Department] Not Started No actions are recommended by the department for the upcoming assessment

<p>Target</p> <p>75% of the students will achieve a score of 3 out of 4 or above.</p> <p>SLO2-rubricpdf.pdf</p>	 <p>0% 100%</p> <p>Values are not shown when too close to each other. Click or use arrow keys to see details.</p> <p>Exceeded: 100%</p> <p>Met Total: 100%</p> <p>Not Met Total:</p> <p>Analysis</p> <p>1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 2. However, assessment of the PhD program' Student Learning Outcome 2 is carried out and reported in the PhD assessment report.</p> <p>2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcome 2 based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>4. Industrial and Systems Engineering Department The DE program had 7 students and all have either met or exceeded expectation. Six out of the 7 students exceeded expectation for SLO- 2 based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>5. Mechanical Engineering No DE student graduated this year, and therefore, no data is collected.</p>	<p>cycle.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Electrical and Computer Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Chemical and Biomolecular Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Civil and Environmental Engineering Department]</p> <p>Not Started</p> <p>The current target is set at 3 out of 4. The target will be reviewed for future assessment cycles</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Mechanical Engineering Department]</p> <p>Not Started</p> <p>No data.</p> <p>Recommended Due Date: 09/18/2025</p>
<p>Qualifying Exam</p> <p>Direct - Exam (Course)</p> <p>Target</p> <p>75% of the students will achieve a score of 3 out of 4 or above.</p>	<p>MET</p> <p>Qualifying Exam</p> <p>Exceeded</p>  <p>0% 100%</p> <p>Values are not shown when too close to each other. Click or use arrow keys to see details.</p> <p>Exceeded: 100%</p>	<p>Other - [Civil and Environmental Engineering Department]</p> <p>Not Started</p> <p>Implement procedures to ensure timely and complete data reporting for future cycles.</p> <p>Other - [Electrical and Computer Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p>


	<p>Met Total: 100%</p> <p>Not Met Total:</p> <p>Analysis</p> <p>1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 2.</p> <p>2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcomes 2 based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>4. Industrial and Systems Engineering Department The DE program had 7 students and all have either met or exceeded expectation. Six out of the 7 students exceeded expectation for SLO- 2 based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>5. Mechanical Engineering No data is collected since there is no student taking the exam.</p>	<p>Other - [Mechanical Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Recommended Due Date: 09/18/2025</p> <p>Other - [Industrial and Systems Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Chemical and Biomolecular Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p>
--	--	--


Conclusion

Based on the assessment data collected from all 5 departments using the dissertation, oral defense, and qualifying exam results, Student Learning Outcome 2 is attained by the students in the DE program.

Student Learning Outcome #3 MET

Students will demonstrate an ability to use modern engineering tools to produce engineering analysis in a systematic manner.

MEASURES	RESULTS	ACTIONS
<p>ENGR 6604 Dissertation</p> <p>Direct - Assignment</p> <p><i>Engineering Dissertation II: ENGR 6604</i></p> <p>Target</p> <p>75% of the students will achieve a score of 3 out of 4 or above.</p> <p>SLO3-rubric.pdf</p>	<p>MET</p> <p>ENGR 6604 Dissertation</p> <p>■ Exceeded</p>  <p>0% 100%</p> <p><small>Values are not shown when too close to each other. Click or use arrow keys to see details.</small></p>	<p>Other - [Industrial and Systems Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Chemical and Biomolecular Engineering Department]</p> <p>Not Started</p>

	<p>Exceeded: 100%</p> <p>Met Total: 100%</p> <p>Not Met Total:</p> <p>Analysis</p> <p>1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 3. However, assessment of the PhD program' Student Learning Outcomes are carried out and reported in the PhD assessment report.</p> <p>2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcome 3 based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>4. Industrial and Systems Engineering Department The DE program had 7 students and all have either met or exceeded expectation. Six out of the 7 students exceeded expectation for SLO- 3 based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>5. Mechanical Engineering No DE student graduated this year, and therefore, no data is collected.</p>	<p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Electrical and Computer Engineering Department] Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Mechanical Engineering Department] Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Civil and Environmental Engineering Department] Not Started</p> <p>The current target is set at 3 out of 4. The target will be reviewed for future assessment cycles</p>
<p>Qualifying Exam</p> <p>Target</p> <p>75% of the students will achieve a score of 3 out of 4 or above.</p>	<p>MET</p> <p>Qualifying Exam</p> <p>■ Exceeded ■ Met</p>  <p>0% 100%</p> <p><i>Values are not shown when too close to each other. Click or use arrow keys to see details.</i></p> <p>Exceeded: 91%</p> <p>Met: 9%</p> <p>Met Total: 100%</p> <p>Not Met Total:</p> <p>Analysis</p>	<p>Other - [Mechanical Engineering Department] Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Electrical and Computer Engineering Department] Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Civil and Environmental Engineering Department] Not Started</p>

	<p>1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 3.</p> <p>2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcome 3 based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>4. Industrial and Systems Engineering Department The DE program had 7 students and all have either met or exceeded expectation. Six out of the 7 students exceeded expectation for SLO- 3 based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>5. Mechanical Engineering No data is collected since there is no student taking the exam.</p>	<p>Implement procedures to ensure timely and complete data reporting for future cycles.</p> <p>Other - [Chemical and Biomolecular Engineering Department] Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Industrial and Systems Engineering Department] Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p>
--	---	--


Conclusion

Based on the assessment data collected from all 5 departments using the dissertation, oral defense, and qualifying exam results, Student Learning Outcome 3 is attained by the students in the DE program.

Student Learning Outcome #4 MET

Students will demonstrate an ability to complete a doctoral dissertation and effectively communicate the dissertation work with a range of audiences

MEASURES	RESULTS	ACTIONS
<div>ENGR 6604 Dissertation</div> <div>Direct - Assignment</div> <div>Engineering Dissertation II: ENGR 6604</div> <div>Target</div> <div>75% of the students will achieve a score of 3 out of 4 or above.</div> <div>SLO4-rubric.pdf</div>	<div>MET</div> <div>ENGR 6604 Dissertation</div> <div><div>Exceeded</div><div>Met</div></div> <div><div><div></div></div><div>0%100%</div></div> <div>Values are not shown when too close to each other. Click or use arrow keys to see details.</div> <div><div>Exceeded:75%</div><div>Met:25%</div><div>Met Total:100%</div><div>Not Met Total:</div></div>	<div>Other - [Electrical and Computer Engineering Department]</div> <div>Not Started</div> <div>No actions are recommended by the department for the upcoming assessment cycle.</div> <div>Other - [Mechanical Engineering Department]</div> <div>Not Started</div> <div>No actions are recommended by the department for the upcoming assessment cycle.</div> <div>Other - [Industrial and Systems Engineering Department]</div>

	<p>Analysis</p> <p>1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 2.</p> <p>2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcome 4 based on assessment data results using the dissertation, final oral defense, and attached rubric.</p> <p>4. Industrial and Systems Engineering Department The DE program had 7 students and all have either met or exceeded expectation. However, SLO-4 was not assessed during the current cycle</p> <p>5. Mechanical Engineering No DE student graduated this year, and therefore, no data is collected.</p>	<p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Chemical and Biomolecular Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Civil and Environmental Engineering Department]</p> <p>Not Started</p> <p>The current target is set at 3 out of 4. The target will be reviewed for future assessment cycles.</p>
<p>Qualifying Exam</p> <p>Direct - Exam (Course)</p> <p>Target</p> <p>75% of the students will achieve a score of 3 out of 4 or above.</p>	<p>MET</p> <p>Qualifying Exam</p> <p>■ Exceeded</p>  <p>0% 100%</p> <p><i>Values are not shown when too close to each other. Click or use arrow keys to see details.</i></p> <p>Exceeded: 100%</p> <p>Met Total: 100%</p> <p>Not Met Total:</p> <p>Analysis</p> <p>1. Chemical Engineering Department: The chemical engineering department did not have any students enrolled in the DE program. All students chose to go for a PhD instead. Therefore, there was no assessment done for Student Learning Outcome 4. However, assessment of the PhD program's Student Learning Outcomes are carried out and reported in the PhD assessment report.</p>	<p>Other - [Electrical and Computer Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Industrial and Systems Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Mechanical Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p> <p>Other - [Civil and Environmental Engineering Department]</p> <p>Not Started</p> <p>Implement procedures to ensure timely and complete data reporting for future cycles.</p>

	<p>2. Civil Engineering Department The DE program had only 1 student and the assessment data collected showed 100% success rate based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>3. Electrical and Computer Engineering Department The DE program had 3 students and all of the students exceeded expectations with respect to Student Learning Outcome 4 based on assessment data results using the Qualifying Exam and attached Rubric.</p> <p>4. Industrial and Systems Engineering Department This Outcome has not been assessed during this cycle.</p> <p>5. Mechanical Engineering No data is collected since there is no student taking the exam.</p>	<p>Other - [Chemical and Biomolecular Engineering Department]</p> <p>Not Started</p> <p>No actions are recommended by the department for the upcoming assessment cycle.</p>
--	--	--

Conclusion

Based on the assessment data collected from all 5 departments using the dissertation, oral defense, and qualifying exam results, Student Learning Outcome 4 is attained by the students in the DE program.