

# Assessment Results

2018-19



## Program (CENG) - Engineering

**University Mission:** George Fox University, a Christ-centered community, prepares students spiritually, academically, and professionally to think with clarity, act with integrity, and serve with passion.

**Program Mission:** Prepare technically competent and broadly educated engineers for a life of responsible service emerging from a Christian worldview.

**Alignment With GFU Mission:** The Engineering Program mission aligns with the GFU mission in the following ways:

- Embraces the Christian mission
- Promotes academic excellence
- Emphasizes importance of practical knowledge, ethical behavior and critical thinking
- Prepares students for a life of responsible service

**Degree Outcomes:**

- Ability to apply knowledge of mathematics, science, and engineering
- Ability to design and conduct experiments, as well as to analyze and interpret data
- 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
- Ability to function on multi-disciplinary teams
- Ability to identify, formulate, and solve engineering problems
- understanding of professional and ethical responsibility
- Ability to communicate effectively
- Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- Recognition of the need for and ability to engage in life-long learning
- Knowledge of contemporary issues
- Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

**Assessment Lead:** Mike Foster

<i>Outcomes</i>	<i>Assessment Tools</i>	<i>Results</i>	<i>Actions/Analysis</i>
<b>Outcome 1</b> - an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics  <b>Outcome Status:</b> Active	<b>Survey</b> - Senior Survey <b>Target:</b> 80% of responses are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 85% of responses are 3 or 4 (10/29/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 88% of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017	

Outcomes	Assessment Tools	Results	Actions/Analysis
	<p><b>Exam/Quiz - In Course - Rubric</b> (instructor developed) for 1a <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Target Met?:</b> Yes 98% of responses are 3 or 4 (05/01/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 97% of responses are 3 or 4 (05/01/2016)</p> <p><b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> No 74% of rubric scores are 3 or 4 (11/07/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 80% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> No 31/46 (67%) of rubric scores are 3 or 4 (05/01/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> No 22/34 (65%) of rubric scores are 3 or 4 (05/01/2016)</p>	<p><b>Action/Analysis:</b> John will try a different approach to prepare students for problem in ENGE 480. (He scored several 2s because students picked the wrong technique but they did solve the problem correctly with a different method) (06/07/2017)</p>
	<p><b>Exam/Quiz - In Course - Rubric</b> (instructor developed) for 1b <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> No 67% of rubric scores are 3 or 4 (11/07/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 78% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> No 34/46 (74%) of rubric scores are 3 or 4 (05/01/2017)</p>	<p><b>Action/Analysis:</b> John will try a different approach to prepare students for problem in ENGE 480. (He scored several 2s because students picked the wrong technique but they did solve the problem correctly with a different method) (06/07/2017)</p>
		<p><b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> No</p>	

Outcomes	Assessment Tools	Results	Actions/Analysis
	<b>Exam/Quiz - In Course</b> - Rubric for 1c (instructor developed) <b>Target:</b> 80% of rubric scores 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	24/33 (73%) of rubric scores are 3 or 4 (05/01/2016) <b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> No 77% of rubric scores are 3 or 4 (11/07/2019) <hr/> <b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 68/84 (81%) of rubric scores are 3 or 4 (06/04/2018) <hr/> <b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 11/12 of rubric scores are 3 or 4 (09/12/2017)	
	<b>Exam/Quiz - In Course</b> - Rubric for 1d (instructor developed) <b>Target:</b> 80% of rubric results are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 104/123 (85%) of rubric scores are 3 or 4 (05/01/2019) <hr/> <b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> No 89/122 (73%) of rubric scores are 3 or 4 (06/04/2018)	<b>Action/Analysis:</b> data seems to be oscillating about the threshold; expect score to be above threshold next year (06/08/2018)
	<b>Related Documents:</b> <a href="#">ENGM 211 Final Exam - Outcome (a) - Student 1.pdf</a> <a href="#">ENGM 211 Final Exam - Outcome (a) - Student 2.pdf</a> <a href="#">ENGM 211 Final Exam - Outcome (a) - Student 3.pdf</a> <a href="#">ENGM 211 Final Exam - Outcome (a) Results.xlsx</a> <a href="#">ENGM 320 Final Exam - Outcome (a) - Student 1.pdf</a> <a href="#">ENGM 320 Final Exam - Outcome (a) - Student 2.pdf</a> <a href="#">ENGM 320 Final Exam - Outcome (a) - Student 3.pdf</a> <a href="#">ENGM 320 Final Exam - Outcome (a) Results.xlsx</a>	<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 138/148 (93%) of rubric scores are 3 or 4 (05/01/2017) <hr/> <b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 188/235 (80%) of rubric scores are 3 or 4 (05/01/2016)	
	<b>Exam/Quiz - In Course</b> - Rubric for 1e (instructor developed) <b>Target:</b> 80% of rubric scores 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> No 73% of rubric scores 3 or 4 (05/03/2019) <hr/> <b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> No 37/49 (76%) of rubric scores are 3 or 4 (06/04/2018)	<b>Action/Analysis:</b> insufficient data to make a decision (due to new assessment tool that replaced FE

Outcomes	Assessment Tools	Results	Actions/Analysis
Exam data) (06/08/2018)			
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 11/12 of rubric scores are 3 or 4 (09/12/2017)	
<b>Outcome 2</b> - an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors  <b>Outcome Status:</b> Active	<b>Survey</b> - Senior Survey <b>Target:</b> 80% of responses are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> No 73% of responses are 3 or 4 (10/29/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> No 78% of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 93% of responses are 3 or 4 (05/01/2017)	
		<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 89% of responses are 3 or 4 (05/01/2016)	
	<b>Capstone Assignment</b> - Senior Design - Rubric for Outcome c <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 90% of rubric scores are 3 or 4 (11/07/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 78% of rubric scores are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 70/72 of rubric scores with 3 or 4 (09/12/2017)	
		<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 44/48 (92%) of rubric scores are 3 or 4 (05/01/2016)	
	<b>Capstone Assignment</b> - Servant Engineering - Rubric for Outcome c <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 86% of rubric scores are 3 or 4 (11/07/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> No 78% of rubric scores are 3 or 4 (06/04/2018)	
<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Approaching Target 68/96 (71%) of responses with 3 or 4 (09/12/2017)			

<i>Outcomes</i>	<i>Assessment Tools</i>	<i>Results</i>	<i>Actions/Analysis</i>
<b>Outcome 3</b> - an ability to communicate effectively with a range of audiences <b>Outcome Status:</b> Active	<b>Survey</b> - Senior Survey <b>Target:</b> 80% of responses are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 82% of responses are 3 or 4 (10/29/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 85% of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 94% of responses are 3 or 4 (05/01/2017)	
		<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 93% of responses are 3 or 4 (05/01/2016)	
		<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> No 77% of rubric scores are 3 or 4 (11/07/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> No 46/59 (78%) of responses are 3 or 4 (06/04/2018)	<b>Action/Analysis:</b> first year below threshold; watch to see if increase occurs (06/08/2018)
	<b>Laboratory Assignment</b> - Rubric for 3a (Writing) <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 46/54 (85%) of rubric scores are 3 or 4 (05/01/2017)	
		<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> No 32/43 (74%) of rubric scores are 3 or 4 (05/01/2016)	
		<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 94% of rubric scores are 3 or 4 (10/29/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 85% of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 60/60 (100%) of rubric scores are 3 or 4 (05/15/2017)	
		<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 40/40 (100%) of rubric scores are 3 or 4 (05/01/2016)	
<b>Presentation/Performance</b> - Rubric 3b (Present to group) - SD team presents to client <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019		

Outcomes	Assessment Tools	Results	Actions/Analysis
	<p>3b (Present to group) - SE team year-end presentation  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p> <p><b>Presentation/Performance</b> - Rubric 3b (Present to group) - presentations in various courses  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Target Met?:</b> Yes  90% of rubric scores are 3 or 4 (11/07/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> No  78% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes  67/80 (84%) of rubric scores are 3 or 4 (09/15/2017)</p> <hr/> <p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  92% of rubric scores are 3 or 4 (11/07/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  80% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes  58/59 (98%) of rubric scores are 3 or 4 (05/01/2017)</p>	<p><b>Action/Analysis:</b> first year below threshold; watch to see if increase occurs (06/08/2018)</p>
	<p><b>Presentation/Performance</b> - Rubric 3c (Comm. in meetings) - SD Students  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  85% of rubric scores are 3 or 4 (10/29/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  62/75 (83%) of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Approaching Target  40/51 (78%) of rubric scores are 3 or 4 (05/15/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> Yes  35/40 (88%) of rubric scores are 3 or 4 (05/01/2016)</p>	<p><b>Action/Analysis:</b> Faculty recognized that g3 for SD was below the 80% threshold. Watch next year's scores (06/07/2017)</p>
	<p><b>Presentation/Performance</b> - Rubric 3c (Comm. in meetings) - SE Students  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  82% of rubric scores are 3 or 4 (11/07/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> No  38/49 (78%) of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017</p>	<p><b>Action/Analysis:</b> increased from last year; watch to see if increase continues (06/08/2018)</p>

Outcomes	Assessment Tools	Results	Actions/Analysis
<p><b>Outcome 4</b> - an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Survey</b> - Senior Survey  <b>Target:</b> 80% of responses are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Target Met?:</b> Approaching Target  57/76 (75%) of rubric scores are 3 or 4 (05/15/2017)</p> <hr/> <p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> No  70% of responses are 3 or 4 (10/29/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  83% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes  92% of rubric scores are 3 or 4 (05/01/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> Yes  95% of responses are 3 or 4 (05/01/2016)</p>	<p><b>Action/Analysis:</b> review threshold in light of average EERI (mid-50's) reported by Carla Z.; move EERI to Sr Seminar to avoid survey fatigue (06/08/2018)</p>
	<p><b>Survey</b> - EERI  <b>Target:</b> Cumulative average N2_100 Score of 60 or higher  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  Cumulative average N2_100 Score of 56.0 (n = 49) (05/03/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> No  Cumulative average N2_100 Score of 54.3 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> No  Cumulative average = 51 (n = 48) (09/15/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> Yes  Cumulative average = 60 (n = 28) (05/01/2016)</p>	
	<p><b>Survey</b> - EVA  <b>Target:</b> 80% of responses are 3 or 4  <b>Schedule for Data Collection:</b> Annual  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  91% of responses are 3 or 4 (11/05/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  88% of responses are 3 or 4 (06/04/2018)</p>	
	<p><b>Capstone Assignment</b> - Rubric 4c in SD</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes</p>	

<i>Outcomes</i>	<i>Assessment Tools</i>	<i>Results</i>	<i>Actions/Analysis</i>
	<b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	92% of rubric scores are 3 or 4 (11/07/2019) <b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 16/19 (84%) of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 12/12 (100%) of rubric scores are 3 or 4 (05/15/2017)	
	<b>Capstone Assignment</b> - Rubric 4c in SE <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 8/8 (100%) of rubric scores are 3 or 4 (05/01/2016) <b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 100% of responses are 3 or 4 (11/05/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 85% of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 15/16 (94%) of rubric scores are 3 or 4 (05/15/2017)	
	<b>Capstone Assignment</b> - Rubric 4d in SD <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 96% of responses are 3 or 4 (11/05/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 80% of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 24/24 (100%) of rubric scores are 3 or 4 (05/15/2017)	
		<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 13/16 (81%) of rubric scores are 3 or 4 (05/01/2016)	
	<b>Capstone Assignment</b> - Rubric 4d in SE <b>Target:</b> 80% of rubric scores are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 92% of responses are 3 or 4 (11/05/2019)	
		<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> No 78% of responses are 3 or 4 (06/04/2018)	
		<b>Academic Year:</b> 2016 - 2017	



Outcomes	Assessment Tools	Results	Actions/Analysis
<p><b>Outcome 5</b> - an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives <b>Outcome Status:</b> Active</p>	<p><b>Survey</b> - Senior Survey <b>Target:</b> 80% of responses are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Target Met?:</b> Yes 27/32 (84%) of rubric scores are 3 or 4 (05/15/2017)</p> <hr/> <p><b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 91% of responses are 3 or 4 (10/29/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 90% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 99% of responses are 3 or 4 (05/01/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 91% of responses are 3 or 4 (05/01/2016)</p>	
	<p><b>Survey</b> - CATME in Servant Engineering <b>Target:</b> 80% of responses are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 88% of responses are 3 or 4 (11/08/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 83% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 785/946 (83%) of responses are 3 or 4 (09/12/2017)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 1529/1791 (85%) of responses are 3 or 4 (09/12/2017)</p>	
	<p><b>Survey</b> - CATME in Senior Design <b>Target:</b> 80% of responses are 3 or 4 <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019 <b>Target Met?:</b> Yes 89% of responses are 3 or 4 (11/08/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 80% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> No 939/1210 (78%) of responses are 3 or 4 (09/12/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes</p>	

Outcomes	Assessment Tools	Results	Actions/Analysis	
<p><b>Outcome 6</b> - an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Survey</b> - Senior Survey</p> <p><b>Target:</b> 80% of responses are 3 or 4</p> <p><b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	85% of responses are 3 or 4 (05/01/2016)		
		<p><b>Academic Year:</b> 2018 - 2019</p> <p><b>Target Met?:</b> Yes</p> <p>80% of responses are 3 or 4 (10/29/2019)</p>		
		<p><b>Academic Year:</b> 2017 - 2018</p> <p><b>Target Met?:</b> Yes</p> <p>80% of responses are 3 or 4 (06/04/2018)</p>		
		<p><b>Academic Year:</b> 2016 - 2017</p> <p><b>Target Met?:</b> Yes</p> <p>92% of responses are 3 or 4 (05/01/2017)</p>		
		<p><b>Academic Year:</b> 2015 - 2016</p> <p><b>Target Met?:</b> Yes</p> <p>94% of responses are 3 or 4 (05/01/2016)</p>		
		<p><b>Laboratory Assignment</b> - Rubric for 6a "Design an Experiment"</p> <p><b>Target:</b> 80% of rubric scores are 3 or 4</p> <p><b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019</p> <p><b>Target Met?:</b> Yes</p> <p>84% of rubric scores are 3 or 4 (10/29/2019)</p>	
	<p><b>Academic Year:</b> 2017 - 2018</p> <p><b>Target Met?:</b> Yes</p> <p>77/81 (95%) of rubric scores are 3 or 4 (06/04/2018)</p>			
	<p><b>Academic Year:</b> 2016 - 2017</p> <p><b>Target Met?:</b> Yes</p> <p>58/69 (84%) of rubric scores are 3 or 4 (05/01/2017)</p>			
	<p><b>Academic Year:</b> 2015 - 2016</p> <p><b>Target Met?:</b> No</p> <p>11/16 (69%) of rubric scores are 3 or 4 (05/01/2016)</p>			
	<p><b>Laboratory Assignment</b> - Rubric for 6b "Conduct an Experiment"</p> <p><b>Target:</b> 80% of rubric scores are 3 or 4</p> <p><b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>		<p><b>Academic Year:</b> 2018 - 2019</p> <p><b>Target Met?:</b> Yes</p> <p>88% of rubric scores are 3 or 4 (11/07/2019)</p>	
			<p><b>Academic Year:</b> 2017 - 2018</p> <p><b>Target Met?:</b> Yes</p> <p>49/59 (83%) of rubric scores are 3 or 4 (06/04/2018)</p>	
		<p><b>Academic Year:</b> 2016 - 2017</p> <p><b>Target Met?:</b> Yes</p> <p>45/54 (83%) of rubric scores are 3 or 4 (05/01/2017)</p>		
<p><b>Academic Year:</b> 2015 - 2016</p> <p><b>Target Met?:</b> No</p> <p>34/43 (79%) of rubric scores are 3 or 4 (05/01/2016)</p>				

Outcomes	Assessment Tools	Results	Actions/Analysis
	<p><b>Laboratory Assignment</b> - Rubric for 6c "Analyze and Interpret Data"  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  83% of rubric scores are 3 or 4 (11/07/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  51/59 (86%) of rubric scores are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> No  43/54 (76.6%) of rubric scores are 3 or 4 (05/01/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> No  30/43 (70%) of rubric scores are 3 or 4 (05/01/2016)</p>	<p><b>Action/Analysis:</b> Faculty acknowledged that the scores were just below the 80% threshold, but they increased from last year. Watch that the trend that continues to increase.</p> <p>(06/07/2017)</p>
<p><b>Outcome 7</b> - an ability to acquire and apply new knowledge as needed, using appropriate learning strategies  <b>Outcome Status:</b> Active</p>	<p><b>Survey</b> - Senior Survey  <b>Target:</b> 80% of responses are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p> <hr/> <p><b>Student Self Assessment</b> - 3 questions on EVA using a Likert-like scale  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  93% of responses are 3 or 4 (10/29/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  88% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes  92% of responses are 3 or 4 (05/01/2017)</p> <hr/> <p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> Yes  100% of responses are 3 or 4 (05/01/2016)</p> <hr/> <p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  81% of rubric scores are 3 or 4 (11/07/2019)</p> <hr/> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  83% of responses are 3 or 4 (06/04/2018)</p> <hr/> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes</p>	

Outcomes	Assessment Tools	Results	Actions/Analysis
	<p><b>Capstone Assignment</b> - Rubric 7b in SD  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p>53/60 (88%) of rubric scores are 3 or 4 (05/01/2017)  <b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> Yes  77/90 (86%) of rubric scores are 3 or 4 (05/01/2016)  <b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> Yes  89% of responses are 3 or 4 (11/05/2019)  <b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  66/75 (88%) of responses are 3 or 4 (06/04/2018)  <b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes  42/51 (82%) of rubric scores are 3 or 4 (05/01/2017)  <b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> Yes  33/40 (83%) of rubric scores are 3 or 4 (05/01/2016)</p>	
	<p><b>Capstone Assignment</b> - Rubric 7b in SE  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> No  79% of responses are 3 or 4 (11/05/2019)  <b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  39/49 (80%) of responses are 3 or 4 (06/04/2018)  <b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Approaching Target  56/76 (74%) of rubric scores are 3 or 4 (05/15/2017)</p>	
	<p><b>Presentation/Performance</b> - Rubric 7b in various classes  <b>Target:</b> 80% of rubric scores 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2018 - 2019  <b>Target Met?:</b> No  79% of rubric scores are 3 or 4 (11/07/2019)  <b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes  140/171 (82%) of responses are 3 or 4 (06/04/2018)  <b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes  27/32 (84%) of rubric scores are 3 or 4 (05/15/2017)</p>	
<p><b>Outcome j -</b> : A knowledge of contemporary issues  <b>Outcome Status:</b> Inactive</p>	<p><b>Survey</b> - Senior Survey  <b>Target:</b> 80% of responses are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> No  75% of responses are 3 or 4 (06/04/2018)</p>	<p><b>Action/Analysis:</b> wait on a decision for j1 since Outcomes a-k were changing to 1-7 in the</p>

Outcomes	Assessment Tools	Results	Actions/Analysis
		<p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> No            32/44 (73%) of responses are 3 or 4 (05/01/2017)</p>	<p>coming year. (06/08/2018)</p> <p><b>Action/Analysis:</b> Student self-assessment scores are below the threshold, but they are improving from past years. Direct assessments indicate students are meeting the threshold. (06/07/2017)</p>
	<p><b>Writing Assignment</b> - Senior Survey; Faculty review of Senior Survey responses  <b>Target:</b> 80% of scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> No            21/32 (66%) of responses are 3 or 4 (05/01/2016)</p> <p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> No            54/69 (78%) of scores are 3 or 4 (06/04/2018)</p>	<p><b>Action/Analysis:</b> wait on a decision for j1 since Outcomes a-k were changing to 1-7 in the coming year. (06/08/2018)</p>
		<p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes            38/44 (86%) of rubric scores are 3 or 4 (05/01/2017)</p>	
		<p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> No            19/32 (59%) of rubric scores are 3 or 4 (05/01/2016)</p>	
	<p><b>Writing Assignment</b> - Rubric j1  <b>Target:</b> 80% of rubric scores are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes            8/10 (80%) of rubric scores are 3 or 4 (05/01/2017)</p>	
<p><b>Outcome k</b> - : An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice  <b>Outcome Status:</b> Inactive</p>	<p><b>Survey</b> - Senior Survey  <b>Target:</b> 80% of responses are 3 or 4  <b>Schedule for Data Analysis &amp; Reporting:</b> Annual</p>	<p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes            85% of responses are 3 or 4 (06/04/2018)</p> <p><b>Academic Year:</b> 2016 - 2017  <b>Target Met?:</b> Yes            83/88 (94%) of rubric scores are 3 or 4 (05/01/2017)</p> <p><b>Academic Year:</b> 2015 - 2016  <b>Target Met?:</b> Yes            59/64 (92%) of rubric scores are 3 or 4 (05/01/2016)</p>	
	<p><b>Laboratory Research Project</b> - Rubric k1</p>	<p><b>Academic Year:</b> 2017 - 2018  <b>Target Met?:</b> Yes</p>	

<i>Outcomes</i>	<i>Assessment Tools</i>	<i>Results</i>	<i>Actions/Analysis</i>
	<b>Target:</b> 80% of rubric scores are 3 or 4	40/45 (89%) of responses are 3 or 4 (06/04/2018)	
	<b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 39/43 (91%) of rubric scores are 3 or 4 (05/01/2017)	
	<b>Laboratory Research Project - Rubric k2</b>	<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 27/33 (82%) of rubric scores are 3 or 4 (05/01/2016)	
	<b>Target:</b> 80% of rubric scores are 3 or 4	<b>Academic Year:</b> 2017 - 2018 <b>Target Met?:</b> Yes 36/38 (95%) of responses are 3 or 4 (06/04/2018)	
	<b>Schedule for Data Analysis &amp; Reporting:</b> Annual	<b>Academic Year:</b> 2016 - 2017 <b>Target Met?:</b> Yes 60/65 (92%) of rubric scores are 3 or 4 (05/01/2017)	
		<b>Academic Year:</b> 2015 - 2016 <b>Target Met?:</b> Yes 30/32 (94%) of rubric scores are 3 or 4 (05/01/2016)	