Engineering [MEng] [ENGR]

Cycles included in this report:
Jun 1, 2022 to May 31, 2023

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Program Name: Engineering [MEng] [ENGR]

Reporting Cycle: Jun 1, 2022 to May 31, 2023

1 Is this program offered via Distance Learning?

100% Traditional or less than 50% Distance/Traditional

2 Is this program offered at an off-site location?

No

2.1 If yes to previous, provide addresses for each location where 50% or more of program credits may be earned.

3 Example of Program Improvement

2018-2019:
Multiple master thesis with great results were produced. Due to low enrollment, there are no changes to report. Discontinued Engineering Management.

2019-2020:
Engineering master's students showing interest in presenting at conferences at the regional level. Difficulties with presenting and recruiting for graduate program due to COVID-19 pandemic.

2020-2021:
Engineering master's students showing interest in presenting at conferences at the regional level. Difficulties with presenting and recruiting for graduate program due the COVID -19 pandemic continuing and the hurricanes hitting campus.

2021-2022:
The master's in engineering program needs to be re-evaluated to see if enrollment is high enough to maintain a course rotation.

2022-2023:
New department head is evaluating the master's in engineering program and developing plans to improve enrollment in graduate students, which includes setting a target of securing $600,000 of research funds. Since students showing interest in joining the program are international students, providing student support through tuition and stipend assistance will be key in growing enrollment in the program. The department head is also working closely with IT to publish more details on department research activities through the website, social media, and newsletter publications for more outreach. Will update and collect all the categories in terms of data collection for 2023-2024 academic year.

4 Program Highlights from the Reporting Year

2018-2019:
Please see attached file.

2019-2020:
No highlights due to COVID-19 Pandemic.

2020-2021:
No highlights due to hurricanes Delta and Laura.

2021-2022:
Students in the program are helping lead and mentor other students (especially undergraduate students) through coursework.

2022-2023:
No highlights for this calendar year.

Files: See list of attachments to view. (Requires Adobe Reader or compatible viewer).

Graduate Program-Report-2018-19

5 Program Mission

The Department of Engineering and Computer Science provides an education in chemical, civil, electrical, and mechanical engineering that is professionally focused and practice-oriented within a student friendly environment. The department prepares our students to practice engineering, focusing on the industrial needs of the region by meeting the needs of traditional and non-traditional students through close contact with the faculty, the staff, and local industrial engineers and managers. The department maintains an up-to-date curriculum that fosters interdisciplinary teamwork, scholarly development, cooperation with regional industry, and engineering ethics.

6 Institutional Mission Reference

The program mission supports the University mission by fostering student success, academic excellence, and university-community alliances. In the program mission, student success and academic excellence are promoted by a professionally focused and practice-oriented student friendly environment, maintaining an up-to-date curriculum. The University mission is also accomplished by the close cooperation with regional industry.

7 Assessment and Benchmark

CHEN 620, CIEN 535, ELEN 555, and MEEN551 Coursework

Instruments: A 5-point rubric to determine the average SLOs on, quizzes, exams, and projects.

Assessment: To measure the ability to apply knowledge of mathematics, science, and engineering in the following courses: CHEN 620, CIEN 535, ELEN 555, and MEEN 551.

Benchmark: An average score of 3.20/5.00 is the desired benchmark.

Prior to 2017-2018, the benchmark was 3.00 on a 5-point scale.
Prior to 2016-2017, the benchmark was 2.00 on a 3-point scale.

Outcome Links

Content Knowledge [Program]
An ability to apply knowledge of mathematics, science, and engineering.

7.1 Data

Academic Year	Overall average for all PCs
2015-2016	2.17/3.00 (3.34/5.00*)
2016-2017	3.52/5.00
2017-2018	4.07/5.00

*Converted

Academic Year	Average Score			
	CHEN 620	CIEN 535	ELEN 555	MEEN551
2018-2019	4.0	4.7	3.73	4.5
2019-2020	—	—	3.94	—
2020-2021	—	—	3.92	—
2021-2022	—	5.0	3.77	—
2022-2023	—	—	—	—

7.1.1 Analysis of Data and Plan for Continuous Improvement

2017-2018:
Beginning in 2017-2018, data is calculated on a 5-point scale with a benchmark of 3.25. To establish a benchmark, the SLOs will be monitored until three years of data has been collected. The current assessment is based on all disciplines.

2018-2019:
The current average for this PC on various course assessments has met the tentative benchmark of 3.25. The assessment results will be monitored until three years of data has been collected. The current assessment is based on all disciplines.

2019-2020:
In the 2019-20 academic year the only course that had any data collected for it was ELEN 555. Due to enrollment in the graduate program and turnover in faculty, as well as the start of the COVID-19 pandemic some of the data may not have been collected.

2020-2021:
In the 2020-2021 academic year ELEN 555 was again the only graduate course offered. This is due to enrollment in the graduate program being low and the continuation of COVID-19 pandemic and multiple hurricanes hitting the campus.

2021-2022:
The benchmark was meant. However, the number of graduate students involved in these courses are very limited so the department may need to change to an assessment that looks at only 600-level graduate courses to get more descriptive statistic.

2022-2023:
Due to very low enrollment in graduate students, no data was collected this year.

8 Assessment and Benchmark CHEN 620, CIEN 535, ELEN 650, and MEEN 551 Coursework

Instrument: A 5-point rubric to determine the averages on quizzes, exams, and projects.

Assessment: To measure the ability to identify, formulate, and solve engineering problems in the following courses: will be decided.

Benchmark: An average score of 3.25/5.00 is the desired benchmark.

Outcome Links

Solving Engineering Problems [Program]
An ability to identify, formulate, and solve engineering problems.

8.1 Data

Academic Year	Overall average for all PCs
2015-2016	2.47/3.00 (2.94/5.00*)
2016-2017	3.25/5.00
2017-2018	4.00/5.00

*Converted

Academic Year	Average Score			
	CHEN 620	CIEN 535	ELEN 650	MEEN 551
2018-2019	4.0	4.7	4.2	4.5
2019-2020	—	—	—	—
2020-2021	—	—	—	—
2021-2022	—	5	—	—
2022-2023	—	—	—	—

8.1.1 Analysis of Data and Plan for Continuous Improvement

2018-2019:
The current average for this PC on various course assessments has met the tentative benchmark of 3.25. The assessment results will be monitored until three years of data has been collected. The current assessment is based on all disciplines.

2019-2020:
The only graduate course that was taught in this assessment was CHEN 620 which was an independent study for a student to be able to graduate. All other courses didn't gather data for graduate data.

2020-2021:
No data was collected for any of the graduate courses in this assessment.

2021-2022:
The only course that collected data was Pipeline Design (CIEN 534). The students far exceeded the benchmark.

2022-2023:
No data was collected this year.

9 Assessment and Benchmark Research

Assessment: Conduct Independent Research in Master Thesis.

Benchmark: An average score of 3.50/5.00 is the desired benchmark score. Establish the benchmark next cycle involving literature search.

Outcome Links

Engineering Research Evaluation [Program]
An ability to identify and evaluate engineering and scientific research.

9.1 Data

Academic Year	Overall average for all PCs
2016-2017	3.50/5.00
2017-2018	4.40/5.00
2018-2019	4.80/5.00
2019-2020	—
2020-2021	—
2021-2022	—
2022-2023	—

9.1.1 Analysis of Data and Plan for Continuous Improvement

2018-2019:
One student in the program (ELEN) completed a thesis. All presentations and research work were accepted by a graduate committee. Student have completed the research project with satisfactory results.

2019-2020:
No data was collected on thesis students.

2020-2021:
No data was collected on thesis students.

2021-2022:
No data was collected on thesis students.

2022-2023:
No data was collected on thesis students.

End of report