Bachelor of Science in Mechanical Engineering

Annual Program Report Template

Year:	2021-2022
Program:	Mechanical Engineering
Contact Person (include email & phone #)	Mansour

Table 1. Assessment Results and Analyses for Current Cycle.

STAGE 1: PLAN				STAGE 2: DO		STAGE 3: STUDY
Departmental Student Learning Goal	Program Student Learning Outcome	Assessment	Assessment Method/Location	Benchmark Expectations	Data Results	Actions/Goals Based on Data Results* What do the data tell you? How will you use this data? How were data from the last cycle used to make changes during this cycle, and What were the results of those changes?
1. Advance professionally with increasing leadership and responsibility beyond entry level in an industry relevant to mechanical engineering. 2. Contribute to organizational objectives with significant societal benefits in an environmentally and						

2. In a previous assessment, it was found that the average students' performance in SLO# 1 in MEEN4310-MEEN4316 to be 73.7% which is below the set threshold of 75%.

3. Because of the below threshold performance of students for SLO#1 in the senior design course, the faculty teaching the senior design courses, MEEN4310 and MEEN4316, implemented continuous improvement measures to improve performance. The students have been required to include detailed documentation of engineering analysis processes in the final report. In addition, the students have been required to present the detailed desigecbede desig09-8 6nior d 8.9 (on,)-23.1 (m)-12.4 (pr)-T* [(bee

					average was 85%.	The average score was found to be 85%. So, it was concluded that the problem could be specific to MEEN4323. Therefore, the faculty teaching MEEN4323 developed a continuous improvement plan and was implemented in MEEN4323, Fall 2022. The faculty provided more assignment problems in the design of systems subjected to environmental constraints and the performance indicator was assessed again in Fall 2022.
					5. Reassessment of SLO#2 in MEEN4323 in Fall of 2022. In Fall 2022, the same outcome was assessed again in MEEN4323, and the result was that 55% scored below 75%.	5. To our surprise, 55% of the students did not meet the 75% threshold. Eight out of 22 students scored 50% or less on the aforementioned performance indicator. It is not clear if the dip in performance was due to COVID and the change of mode of instruction from face-to-face to online and back to face-to-face or something else. The faculty devised another continuous improvement plan for MEEN4323 to be implemented in the Fall of 2023. The plan includes additional practice problems and a possible site visit to address real application issues.
	3. an ability to communicate effectively with a range of audiences	Performance Indicators: a. Presentations are professional, clear, well-organized,indicators:T J 0 6 8 7 0 T d ( ) T j				

free of language errors

b. Presentations engage audiences with appropriate language and skillful use of visual aids.

c. Interact with audience in presentation

d. Information is organized with well-constructed headings and paragraphs. Data are effectively presented in figures and tables. There are no grammatical, spelling or punctuation errors.

e. Demonstrate the skills of technical reasoning and writings

design course series.

and e, were assessed in MEEN4319, material scienc14 6h7uTm ( )TtMCID 30e38 >>BDC -0.014 Tc 0 (respectively.

indicators a and assessed in MEEN4316.

for performance indicators a, b, and e, resotively, with no tudentsorir below 75%. Therefore, no continuousmprovementaction will time30e35 (.)]TJ 0 Tc 0 Tw 2.109

There were no actions/goals from previous cycle.	N	In the previous cycle, assessment results in the senior design courses showed that the students performed well on all performance indicators for all 3 SLOs. Therefore, there were no actions taken for improvement. Since the last report, new assessments have been conducted and showed some issues 0 Tc 0 Tw 2.207 0 00

Section 3 Outcomes

SLO# 3: an ability to communicate effectively with a

Aid B:

Several changes have been made to the assessment process including updating the list of target courses where the outcomes are assessed and 2 flowcharts (Figs. 1-2) to help guide the assessment and continuous improvement processes. In addition, the duration of the assessment cycle has been shortened from 3 years to 2.

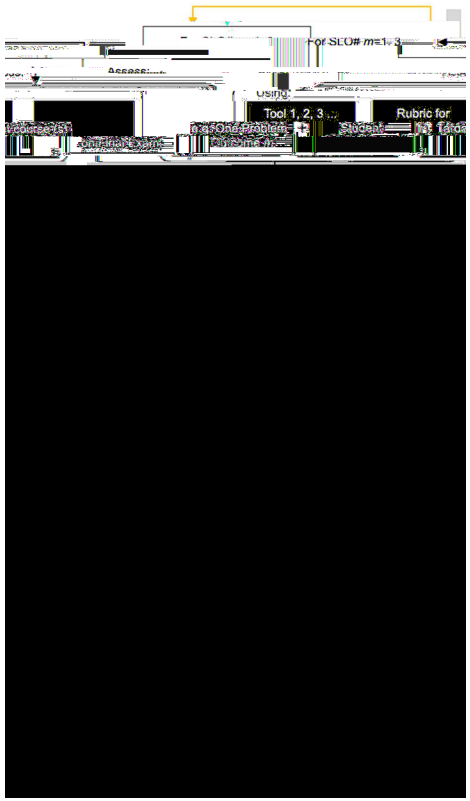

Fig. 1: Assessment and Continuous Improvement Processes

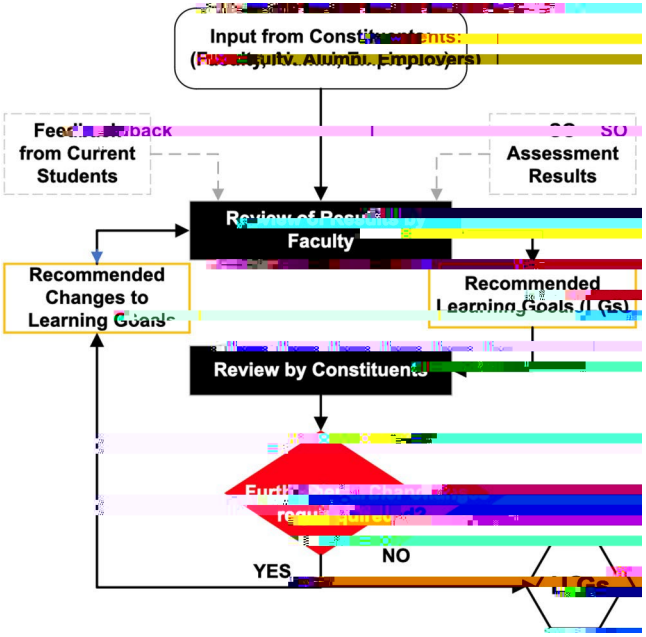

Fig. 2: Learning Goals Review