

MECHANICAL ENGINEERING

EN-ME-BSME

2017-2018

ACM:

Faculty:

Student Learning Outcomes

SLO Count: 11

Name	Content
SLO 1: Apply Math	1: a. an ability to apply knowledge of mathematics, science and engineering
SLO 10: Contemporary issues	10: j. a knowledge of contemporary issues
SLO 11: Modern tools/skills	11: k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
SLO 2: Conduct/Analyze Experiments	2: b. an ability to design and conduct experiments, as well as to analyze and interpret data
SLO 3: Design	3: c. an 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
SLO 4: Team Work	4: d. an ability to function on multidisciplinary teams
SLO 5: Problem Solving	5: e. an ability to identify, formulate, and solve engineering problems
SLO 6: Professionalism and Ethics	6: f. an understanding of professional and ethical responsibility

SLO 7: Oral &Written communication skills	7: g. an ability to communicate effectively (3g1 orally, 3g2 written)
SLO 8: global/environmental/societal context	8: h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
SLO 9: Life-long learning	9: i. a recognition of the need for, and an ability to engage in life-long learning

Does this program have specialized accreditation?

Yes

Accreditation Activities

- Self-Study (Academic year:)

Assessment Activities and Results

Assessment Activity Count: 1

Assessment Activity: Courses Senior Design FE Exam

Please provide a brief name for this assessment activity.	Courses Senior Design FE Exam
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<p>Describe the assessment method used to assess the learning outcome(s). Provide enough detail so that we understand the nature of the project.</p>	<p>Direct Assessment by Instructors for Lab courses, Machine Theory and Design, and Senior Design FE Exam results of different subjects</p>
<p>What were the findings from this assessment?</p>	<p>Students were weak in SO (2): Statistical analysis of experimental data Students needed help in SO (3): Design using professional standards, e.g., ASME, ASTM, ASHRAE, ISO, etc. Students did well in SO (4): Team work and conflict resolution Students were weak in SO (11): Modern tools</p>
<p>How are you using or planning to use the findings from this assessment for program improvement? Where applicable, give specific examples of changes you are making to the program as a result of your findings.</p>	<p>SO (2): Add statistical analysis to all lab courses SO (3): Add professional standard codes to design SO (4): Continue to emphasize team work and conflict resolution SO (11): The College created a new course titled "Introduction to Problem Solving" with modern software/programming tools</p>

Planned Assessment

Direct Assessment Activities

SLO 7: Oral & Written communication skills					X						X						
SLO 8: global/ environmental/ societal context	X																
SLO 9: Life-long learning	X																

Indirect Assessment Activities

SLO	None	Current Student Survey	Graduating Student Survey	Alumni Survey	Employer Survey	Focus Groups	SFFs	Other
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SLO 1: Apply Math		X						
SLO 10: Contemporary issues	X							
SLO 11: Modern tools/skills		X						
SLO 2: Conduct/Analyze Experiments		X						
SLO 3: Design		X						
SLO 4: Team Work	X							
SLO 5: Problem Solving		X				X		
SLO 6: Professionalism and Ethics	X							
SLO 7: Oral & Written communication skills		X						

SLO 8: global/envir- mental/societal context	X							
SLO 9: Life- long learning	X							