

## Mechanical Engineering BS Assessment Plan

### Frequency of Student Outcome Assessment

The goal is to collect assessment data based on the direct measures of student work and based on survey data from alumni and the Industrial Advisory Board at least *twice* in a period of six years, preferably with reassessments being at least two to three years after the previous assessment. Assessment data from graduating seniors (Senior Exit Surveys) and from Course Evaluation Surveys are collected every year.

### Assessment Methods, Frequency, Expected Level of Achievement for Student Learning Outcomes a-k

Assessment Methods	Frequency	Expected Level of Achievement
Senior Exit Survey (Indirect)	Every spring semester	70% Excellent or AA ratings by graduating seniors
Course Evaluations (Indirect)	Every semester, for all required courses	70% Excellent or Above Average ratings by students in relevant courses
Industrial Advisory Board/Employers (Indirect)	Every 2 years	70% Excellent or Above Ave ratings on ME graduate success
Alumni Survey (Indirect)	Every 2 years	70% Excellent or AA ratings on amount achieved in ME program
Direct assessment of student work in coursework aligned to specific SLOs in curriculum map	Every 1-3 years	Average 3.5 rating of student work on a 5 point scale

For the most up-to-date information, please contact the program.

## Direct and Indirect Methods of Assessing Student Outcomes

Student Outcomes	Indirect Measures				Direct Measures																			
	Senior Exit Surveys	Alumni Surveys	Advisory Board/Employer Surveys	Course Evaluation Surveys	EGME 102 - Engineering Graphics	EGME 205 – Digital Computation	EGME 304 - Thermodynamics	EGME 306A – Unified Lab	EGME 306B – Fluids & Thermal Lab	EGME 308 – Engineering Analysis	EGME 314 – Engineering Economy	EGME 322 L – Intro to CAD	EGME 331 – Mech Behavior of Materials	EGME 333 – Fluid Mech .& Aerodyn	EGME 335 – Into to Mechanical Design	EGME 407 – Heat Transfer	EGME 414 – Design Project I	EGME 419 – Design Project II	EGME 421 – Mechanical Design	EGME 431 – Mechanical Vibrations	EGME 476A – Dynamics & Control Lab	EGME 476B – Energy & Power Lab	EGME 490 – Seminar in Engineering	
<b>a) Math, Science &amp; Engineering</b>	X	X	X	X	X		X			X	X		X	X	X	X			X	X				
<b>b) Design, Conduct, &amp; Analyze Exp.</b>	X	X	X	X				X	X									X				X	X	
<b>c) Design Component with Constraint</b>	X	X	X	X							X						X	X						
<b>d) Multi-disp. Team</b>	X	X	X	X													X	X						
<b>e) Identify, Formulate, &amp; Solve Problems</b>	X	X	X	X		X	X			X			X	X	X	X			X	X				
<b>f) Professional &amp; Ethical Responsibility</b>	X	X	X	X														X						X
<b>g) Communicate Effectively</b>	X	X	X	X	X			X	X		X						X	X				X	X	
<b>h) The Broad Education</b>	X	X	X	X							X													X
<b>i) Life-Long Learning</b>	X	X	X	X														X						X
<b>j) Contemp. Issues</b>	X	X	X	X							X					X								X
<b>k) Modern Engineering Tools</b>	X	X	X	X	X	X		X	X			X	X	X	X	X	X	X	X	X	X	X	X	

For the most up-to-date information, please contact the program.