



Engineering Assessment Plan Dashboard - 2018-19

SO	Description	Met Target?		
		Method 1	Method 2	Method 3
a	Apply knowledge of math, science, & engineering	Not Met	Met	Met
b	Design & conduct experiments	Exceeded	Exceeded	Met
c	Design a system to meet needs within realistic constraints	Not Met	Not Met	Exceeded
d	Function on multi-disciplinary teams	Exceeded	Not Met	Met
e	Identify, formulate, and solve engineering problems	NR	Exceeded	Exceeded
f	Understand professional and ethical responsibility	Exceeded	Exceeded	Exceeded
g	Communicate effectively	Not Met	Exceeded	Met
h	Understand the impact of engineering solutions	Not Met	Exceeded	Met
i	Life-long learning	NR	Exceeded	Exceeded
j	Knowledge of contemporary issues	Not Met	Exceeded	Met
k	Skills necessary for engineering practice	Not Met	Exceeded	Met
l	Christian worldview and character	Not Met	Exceeded	Exceeded

Key	
n/a	not applicable, method not used
NR	not reported, no results reported
Exceeded	exceeded the target
Met	target met, no action required
Not Met	target not met
New	new measurement, results not gathered yet
IP	in process, interpretation of results is in work



Engineering Assessment Plan Dashboard Detail - 2018-19

SO a - Apply knowledge of math, science and engineering

Method 1	Course Level Assessment (CLA) EGR3099 Machine Component Design	> 80% will be ≥ 3 out of 4	Not Met
Method 2	Major Field Test (MFT)	> 80% of students receive $\geq 60\%$ correct	Met
Method 3	Recent Graduate Surveys (RGS)	Avg $\geq 80\%$ (4 on a 5-point scale)	Met

SO b - Design and conduct experiments

Method 1	Course Level Assessment (CLA) EGR3044 Fluid Mechanics	> 80% will be ≥ 3 out of 4	Exceeded
Method 2	Course Level Assessment (CLA) EGR3014 Mechanics of Materials	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg $\geq 80\%$ (4 on a 5-point scale)	Met

SO c - Design a system to meet needs within realistic constraints

Method 1	Course Level Assessment (CLA) EGR303099 Machine Component Design	> 80% will be ≥ 3 out of 4	Not Met
Method 2	Course Level Assessment (CLA) EGR303053 Heat Transfer	> 80% will be ≥ 3 out of 4	Not Met
Method 3	Recent Graduate Surveys (RGS)	Avg $\geq 80\%$ (4 on a 5-point scale)	Exceeded

SO d - Function on multi-disciplinary teams

Method 1	Course Level Assessment (CLA) EGR4012 Senior Design I	> 80% will be ≥ 3 out of 4	Exceeded
Method 2	Course Level Assessment (CLA) EGR40122 Senior Design II	> 80% will be ≥ 3 out of 4	Not Met
Method 3	Recent Graduate Surveys (RGS)	Avg $\geq 80\%$ (4 on a 5-point scale)	Met

SO e - Identify, formulate, and solve engineering problems			
Method 1	Course Level Assessment (CLA) EGR3014 - Mechanics of Materials* <i>(no longer used)</i>	> 80% will be ≥ 3 out of 4	NR
Method 2	Course Level Assessment (CLA) EGR3033 Automatic Control Systems <i>(previously EGR3033 System Dynamics)</i>	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Exceeded
SO f - Understand professional and ethical responsibility			
Method 1	Course Level Assessment (CLA) EGR4012 Senior Design Projects I	> 80% will be ≥ 3 out of 4	Exceeded
Method 2	Course Level Assessment (CLA) EGR4022 Senior Design Project II	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Exceeded
SO g - Communicate effectively			
Method 1	Course Level Assessment (CLA) EGR3099 Machine Component Design	> 80% will be ≥ 3 out of 4	Not Met
Method 2	Course Level Assessment (CLA) EGR4022 Senior Design Projects II	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Met
SO h - Understand the impact of engineering solutions			
Method 1	Course Level Assessment (CLA) EGR3099 Machine Component Design	> 80% will be ≥ 3 out of 4	Not Met
Method 2	Course Level Assessment (CLA) EGR2083 Engineering Materials and Processes	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Met
SO I - Life-long learning			
Method 1	Course Level Assessment (CLA) EGR3099 Machine Component Design <i>(not assessed in 2018-19, will be next year)</i>	> 80% will be ≥ 3 out of 4	NR
Method 2	Course Level Assessment (CLA) EGR1014 Intro to Engineering	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Exceeded

SO j - Knowledge of contemporary issues			
Method 1	Course Level Assessment (CLA) EGR3099 Machine Component Design	> 80% will be ≥ 3 out of 4	Not Met
Method 2	Course Level Assessment (CLA) EGR2073 Thermodynamics	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Met
SO k - Skills necessary for engineering practice			
Method 1	Course Level Assessment (CLA) EGR3033 Automatic Control Systems (<i>previously EGR3033 System Dynamics</i>)	> 80% will be ≥ 3 out of 4	Not Met
Method 2	Course Level Assessment (CLA) EGR3014 Mechanics of Materials	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Met
SO I - Christian worldview and character			
Method 1	Course Level Assessment (CLA) EGR3099 Machine Component Design	> 80% will be ≥ 3 out of 4	Not Met
Method 2	Course Level Assessment (CLA) EGR2073 Thermodynamics in 2017-18 and EGR2083 Engineering Materials and Processes in 2018-19	> 80% will be ≥ 3 out of 4	Exceeded
Method 3	Recent Graduate Surveys (RGS)	Avg ≥ 80% (4 on a 5-point scale)	Exceeded