

CHICO STATE UNIVERSITY
ASSESSMENT SUMMARY UPDATE

PROGRAM: BS in Mechanical Engineering

Year of review	Student Learning Outcome	Describe assessment activity done this year for this SLO	Findings	Based on the results or evidence, what action was taken regarding program improvements?
2016-2017	SLO a: An ability to apply knowledge of mathematics, science, and engineering	Assessment was conducted in MECH 340. The student demonstrates competency by achieving 60% correct or better in three exams.	72% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO b1: An ability to design experiments to evaluate the performance of a mechanical/thermal system or component with respect to specifications	Assessment was conducted in MECH 440B. This is a direct pass/fail assessment of individual writing of design test plan.	97% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO b2: An ability to conduct experiments, as well as analyze and interpret data	Assessment was conducted in MECH 380. The student achieves competency by achieving a C or better grade on lab report assignment.	82% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO c1: An ability to design a mechanical system, component, or process to meet desired needs	Assessment was conducted in MECH 340. The students demonstrate competency by a minimum grade of 60% on design project report.	98% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO c2: An ability to design a thermal system, component, or process to meet desired needs	Assessment was conducted in MECH 338. The students demonstrate competency by achieving at least 70% in at least one of two design problems.	93% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO d: An ability to function effectively as members of multidisciplinary teams	Assessment was conducted in MECH 440A. The student is graded by faculty advisor and	100% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.

Year of review	Student Learning Outcome	Describe assessment activity done this year for this SLO	Findings	Based on the results or evidence, what action was taken regarding program improvements?
		peers on performance in the group project.		
	SLO e1: An ability to define engineering problems	Assessment was conducted in MECH 440A. This is a pass/fail evaluation of problem definition in design report.	100% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO e2: An ability to solve engineering problems	Assessment was conducted in MECA 482. The student demonstrates competency by achieving an average grade of C- or better in an in-class exam.	78% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO f: An understanding of professional ethical responsibility	Assessment was conducted in CIVL 495.	100% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO g1: An ability to communicate technical matters effectively in oral form	Assessment was conducted in MECH 440A. This is a pass/fail assessment of performance in design reviews.	100% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO g2: An ability to communicate technical matters effectively in written form	Assessment was conducted in MECH 340. The student demonstrates competency by a minimum grade of 60% in written design report.	97% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO g3: An ability to communicate technical matters effectively in graphical form	Assessment was conducted in MECH 340. The student demonstrates competency by a minimum grade of 60% for drawings in design report.	97% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO h: The broad education necessary to understand the impact of engineering solutions in a global and societal context	Assessment was conducted in CIVL 495.	100% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.
	SLO i: A recognition of the need for, and an ability to engage in, life-long learning	Assessment was conducted in CIVL 495.	100% pass rate.	No actions taken.
	SLO j: A knowledge of contemporary issues	Assessment was conducted in CIVL 495.	100% pass rate.	No actions taken.
	SLO k: An ability to use the techniques, skills, and modern mechanical engineering tools necessary for engineering practice	Assessments in three classes. MECH 306: Pass (at least 60%) four of five exams. MECH 308: Pass/fail assessment of FEA in design report.	MECH 306: 87% pass rate. MECH 308: 98% pass rate. MECA 380: 97% pass rate.	The assessment process served the purpose properly; no action was taken to modify it.

Year of review	Student Learning Outcome	Describe assessment activity done this year for this SLO	Findings	Based on the results or evidence, what action was taken regarding program improvements?
		MECA 380: Minimum grades of 17/22, 17/23, and 17/23 on three LabVIEW programming assignments.		