

CHICO STATE UNIVERSITY

ASSESSMENT SUMMARY UPDATE

PROGRAM: B.S. Electrical/Electronic 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	(a) Embedded assessment was conducted in EECE 311. (b) Assessment was accomplished via Q31 in graduating senior survey.	(a) Students achieved 79% pass rate in this assessment. (b) Graduating senior survey indicates an average score of 4.22/5.00. This is above the 3.5 level the department chose as being minimally acceptable.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO b: an ability to design and conduct experiments, as well as to analyze and interpret data.	(a) Embedded assessment was conducted in EECE 490A and 490B. (b) Assessment was accomplished via Q32 and Q33 in graduating senior survey.	(a) Student achieved 96% pass rate in this assessment. (b) The graduating senior survey indicated average scores of 4.00/5.00 and 4.00/5.00.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO 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.	(a) Embedded assessment was based design assignments in EECE490A. (b) Assessment was accomplished via question Q34 in graduating senior survey.	(a) Student achieved 100% pass rate in this assessment. (b) Graduating senior survey indicates an average score of 3.78/5.00. This is above the 3.5 level the department chose as being minimally acceptable.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO d: an ability to function on multidisciplinary teams.	(a) Embedded assessment was done in EECE 344. (b) Assessment was accomplished via question Q35 in graduating senior survey.	(a) Student achieved 100% pass rate in this assessment. (b) Graduating senior survey indicates an average score of 3.89/5.00. This is above the 3.5 level the department chose as being minimally acceptable.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO e: an ability to identify, formulate, and solve engineering problems.	(a) Embedded assessment was conducted in EECE 343. (b) Assessment was accomplished via question Q36 in graduating senior survey.	(a) Students achieved 94% pass rate in this assessment. (b) Graduating senior survey result indicates an average score of 3.89/5.00. This is above the 3.5 level	No actions taken, the assessment result did not warrant major actions for program improvement.

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			the department chose as being minimally acceptable.	
	SLO f: an understanding of professional and ethical responsibility.	(a) Embedded assessment was conducted in EECE 490B. (b) Assessment was accomplished via question Q39 in graduating senior survey.	(a) Students achieved 100% pass rate in this assessment. (b) The senior exit survey result indicates an average score of 4.33/5.00.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO g: an ability to communicate effectively in both oral and written forms.	(a) Embedded assessment was conducted in EECE 490A. (b) Assessment was accomplished via questions Q37 and Q38 in graduating senior survey.	(a) Students achieved 100% pass rate in this assessment. (b) Q (written communication): 4.44/5.00. Q24 (oral communication): 4.22/5.00.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO h: the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.	(a) Embedded assessment was conducted in EECE 490A. (b) The SLO was included as Q42 in the graduating senior survey.	(a) Students achieved 75% pass rate in this assessment. (b) The senior exit survey result indicates an average score of 4.11/5.00.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO i: a recognition of the need for, and an ability to engage in life-long learning	(a) Embedded assessment was conducted in EECE 481. (b) The SLO was included as Q43 in the graduating senior survey.	(a) Students achieved 100% pass rate in this assessment. (b) The senior exit survey result indicates an average score of 4.00/5.00.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO j: a knowledge of contemporary issues.	(a) Embedded assessment was conducted in EECE 490B. The assessment was included as Q40 in the graduating senior survey.	(a) Students achieved 87% pass rate in this assessment. (b) The senior exit survey result indicates an average score of 3.89/5.00. This is above the 3.5 level the department chose as being minimally acceptable.	No actions taken, the assessment result did not warrant major actions for program improvement.
	SLO k: an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	(a) Embedded assessment was conducted in EECE 365. (b) The assessment was included as Q41 in the senior exit survey.	(a) Students achieved 90% pass rate in this assessment. (b) The senior exit survey result indicates an average score of 4.00/5.00.	No actions taken, the assessment result did not warrant major actions for program improvement.

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2015-2016	SLO a) n ability to apply knowledge of math, science and engineering	(a) Embedded assessment was conducted in EECE 311. (b) Assessment was accomplished via Q17 in graduating senior survey.	(a) Students achieved 100% pass rate in this assessment. (b) Graduating senior survey indicates an average score of 3.95/5.00. This is above the 3.5 level the department chose as being minimally acceptable.	(a) No actions taken. (b) No actions taken.
	SLO b) an ability to design and conduct experiments as well as to analyze and interpret data.	Assessment was accomplished via Q18 and 19 in graduating senior survey.	The graduating senior survey indicated average scores of 4.00/5.00 and 4.00/5.00.	No actions taken.
	SLO 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.	(a) Embedded assessment was based design assignments in EECE 315. (b) Assessment was accomplished via question Q20 in graduating senior survey.	(a) 100% of students assessed in EECE 315 achieved the outcome. (b) Graduating senior survey indicates an average score of 3.95/5.00.	(a) No actions taken. (b) No actions taken.
	SLO d) an ability to function on multi-disciplinary teams	(a) Embedded assessment was done in EECE 344. (b) Assessment was accomplished via question Q21 in graduating senior survey.	(a) Students achieved 73% pass rate in this assessment. (b) Graduating senior survey indicates an average score of 4.05/5.00	(a) No actions taken. (b) No actions taken.
	SLO e) an ability to identify, formulate and solve engineering problems	(a) Embedded assessment was conducted in EECE 375. (b) Assessment was accomplished via question Q22 in graduating senior survey.	(a) Students achieved 100% pass rate in this assessment. (b) Graduating senior survey result indicates an average score of 4.05/5.00.	(a) No actions taken. (b) No actions taken.
	SLO f) an understanding of professional and ethical responsibilities	Assessment was accomplished via question Q25 in graduating senior survey.	The senior exit survey result indicates an average score of 4.00/5.00.	No actions taken.
	SLO g) an ability to communicate effectively in both oral and written forms	Assessment was accomplished via questions Q24 and Q23 in graduating senior survey.	Q23 (written communication): 3.94/5.00. Q24 (oral communication): 4.11/5.00.	No actions taken.
	SLO h) the broad education necessary to understand the impact of engineering solutions in a global and societal context	The SLO was included as Q28 in the graduating senior survey.	The senior exit survey result indicates an average score of 4.00/5.00.	No actions taken.
	SLO i) a recognition of the need for, and an ability to engage in, life-long learning	(a)Embedded assessment was conducted in EECE 481. (b)The SLO was included as Q29 in the graduating senior survey.	(a) Students achieved a pass rate of 100% in assessment.	(a) No actions taken. (b) No actions taken.

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			(b) The graduating senior survey result indicates an average score of 4.21/5.00.	
	SLO j) a knowledge of contemporary issues	The assessment was included as Q26 in the graduating senior survey.	The senior exit survey result indicates an average score of 4.00/5.00.	No actions taken.
	SLO k: An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	(a) Embedded assessment was conducted in EECE365 (b) The assessment was included as Q27 in the senior exit survey.	(a) 100% of students assessed in EECE 365 achieved the outcome. (b) The graduating senior survey result indicates an average score of 4.05/5.00.	(a) No actions taken. (b) No actions taken.

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?
2014-2015	SLO a) n ability to apply knowledge of math, science and engineering	a) Assessment was done in EECE 375 by assessing specific student assignments. b) Assessment was accomplished via Q31 in senior exit survey.	a)) 100% of students assessed in EECE 375 achieved the outcome. b) Senior exit survey indicates an average score of 4.25/5.00. This is above the 3.5 level the department chose as being minimally acceptable.	a) No actions taken. b) No action taken,
	SLO b) an ability to design and conduct experiments as well as to analyze and interpret data.	Assessment was accomplished via Q32 and 33 in senior exit survey.	The senior exit survey indicated an average score of 4.18/5.00 and 4.13/5.00.	No actions taken.
	SLO 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.	(a) Assessment was done in EECE 344, based design assignments in EECE 315. (b) Assessment was accomplished via question Q34 in senior exit survey.	(a) 100% of students assessed in EECE 315 achieved the outcome. (b) Senior exit survey indicates an average score of 4.31/5.00.	(a) No actions taken. (b) No actions taken.
	SLO d) an ability to function on multi-disciplinary teams	Assessment was accomplished via question Q35 in senior exit survey.	The senior exit survey result indicates an average score of 4.33/5.00	No actions taken.
	SLO e) an ability to identify, formulate and solve engineering problems	Assessment was accomplished via question Q36 in senior exit survey.	The senior exit survey result indicates an average score of 4.04/5.00.	No actions taken.
	SLO f) an understanding of professional and ethical responsibilities	Assessment was accomplished via question Q39 in senior exit survey.	The senior exit survey result indicates an average score of 4.25/5.00.	No actions taken.
	SLO g) an ability to communicate effectively in both oral and written forms	Assessment was accomplished via questions Q37 and Q38 in senior exit survey.	Q37 (written communication): 4.38/5.00. Q38 (oral communication): 4.38/5.00.	No actions taken.
	SLO h) the broad education necessary to understand the impact of engineering solutions in a global and societal context	The SLO was included as Q42 in the senior exit survey.	The senior exit survey result indicates an average score of 4.19/5.00.	No actions taken.
	SLO i) a recognition of the need for, and an ability to engage in, life-long learning	The SLO was included as Q43 in the senior exit survey.	The senior exit survey result indicates an average score of 4.47/5.00.	No actions taken.
	SLO j) a knowledge of contemporary issues	The assessment was included as Q40 in the senior exit survey.	The senior exit survey result indicates an average score of 4.39/5.00.	No actions taken.

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	SLO k: An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	(a) Assessment will be based on an evaluation of all designated class assignments that requires demonstration of proficiency in programming with MATLAB by writing codes to plot signals, evaluate convolution of signals and plot it, evaluate spectrum of signals and plot it, evaluate transforms of signals, plot time domain and frequency domain response of system.. (b) The assessment was included as Q41 in the senior exit survey.	(a) 100% of students assessed in EECE 365 achieved the outcome. (b) The senior exit survey result indicates an average score of 4.31/5.00.	(a) No actions taken. (b) No actions taken.

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?
2013-2014	SLO a: An ability to apply knowledge of math, science and engineering	(a) Assessment was done in EECE 311. A student demonstrates competency by achieving a score of 4 of 8 on three class assignments and one examination problem. (b) The assessment was included as Q31 in senior exit survey.	(a) 92% of students assessed in EECE 311 achieved the outcome. (b) Senior exit survey indicates an average score of 3.87/5.00.	(a) No actions taken. (b) No actions taken.
	SLO b: An ability to design and conduct experiments as well as to analyze and interpret data.	The outcome was included as Q32 and Q33 in the graduating senior survey.	The senior exit survey indicated an average score of 3.87/5.00 and 3.93/5.00.	No actions taken.
	SLO 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.	(a) Assessment was done in EECE 344, based on an evaluation of the semester-long single-board computer design project. A student demonstrates the competency by achieving a minimum score of 8 of 12. (b) The assessment was part of the senior exit survey: Q34.	(a) 91% of students assessed in EECE 344 achieved the outcome. (b) Senior exit survey indicates an average score of 3.67/5.00.	(a) No actions taken. (b) No actions taken.
	SLO d: An ability to function on multi-disciplinary teams	(a) The SLO was not assessed in the designated CIVL 495. (b) The assessment was included as Q35 in the senior exit survey.	The senior exit survey result indicates an average score of 3.60/5.00	No actions taken.
	SLO e: An ability to identify, formulate and solve engineering problems	The assessment was included as Q36 in senior exit survey.	Senior exit survey indicates an average score of 3.80/5.00.	No actions taken.
	SLO f: An understanding of professional and ethical responsibilities	The assessment was included as Q39 in the senior exit survey.	Senior exit survey indicates an average score of 4.13/5.00.	No actions taken.
	SLO g: An ability to communicate effectively	The assessment was included in senior exit survey as Q37 (written communication) and Q38 (oral communication).	Q37 (written communication): 3.67/5.00. Q38 (oral communication): 3.60/5.00.	No actions taken.
	SLO h: The broad education necessary to understand the impact of engineering solutions in a global and societal context	The SLO was included as Q 42 in the senior exit survey.	The average score is 3.93/5.00.	No actions taken.

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?
	SLO i: A recognition of the need for, and an ability to engage in, life-long learning	The SLO was included as Q 43 in the senior exit survey.	The average score is 4.20/5.00.	No actions taken.
	SLO j: A knowledge of contemporary issues	The assessment was included as Q40 in the senior exit survey.	Senior exit survey indicates an average score of 3.93/5.00.	No actions taken.
	SLO k: An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	(a) The SLO was assessed in EECE 343. A student demonstrates competency by achieving a score of 4 of 8 on analog and digital design assignments using Altera Quartus II 5.0 and Pspice. (b) The assessment was included as Q41 in the senior exit survey.	(a) 100% of students assessed in EECE 343 achieved the outcome. (b) Senior exit survey indicates an average score of 3.67/5.00.	(a) No actions taken. (b) No actions taken.

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2012-2013	SLO a: An ability to apply knowledge of math, science and engineering	(a) Assessment was done in EECE 311. A student demonstrates competency by achieving a score of 4 of 8 on three class assignments and one examination problem. (b) The assessment was included in senior exit survey.	(a) 90% of students assessed in EECE 311 achieved the outcome. (b) Senior exit survey indicates an average score of 4.18/5.00.	(a) No actions taken. (b) No actions taken.
	SLO b: An ability to design and conduct experiments as well as to analyze and interpret data	The SLO was not assessed.	No results were available.	No actions taken.
	SLO c: An ability to design a system, component, or process to meet desired needs	(a) Assessment was done in EECE 315. Students are required to design an electronic circuit to meet specific requirements. The maximum grade on the assignment is 8 points and the minimum required to satisfy the standard is 5 points. (b) The assessment was included in senior exit survey.	(a) 100% of students assessed in EECE 315 achieved the outcome. (b) Senior exit survey indicates an average score of 3.84/5.00.	(a) No actions taken. (b) No actions taken.
	SLO d: An ability to function on multi-disciplinary teams	The SLO was not assessed.	No results were available.	No actions taken.
	SLO e: An ability to identify, formulate and solve engineering problems	(a) Assessment was done in EECE 490A/B. A student demonstrates successful completion of this outcome by achieving a score of 16 of 22 on project concept, requirements, and design documents. (b) The assessment was included in senior exit survey.	(a) 100% of students assessed in EECE 490A/B achieved the outcome. (b) Senior exit survey indicates an average score of 3.64/5.00.	(a) No actions taken. (b) No actions taken.
	SLO f: An understanding of professional and ethical responsibilities	The SLO was not assessed.	No results were available.	No actions taken.

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?
	SLO g: An ability to communicate effectively	(a) Assessment was done in EECE 490A. A student demonstrates successful completion of this outcome by achieving a score of 10 of 14 on the oral presentation and a score of 13 of 18 on the concept and requirements documents. (b) The assessment was included in senior exit survey.	(a) 100% of students assessed in EECE 490A achieved the outcome. (b) Senior exit survey indicates an average score of 3.91/5.00 for written communication and 3.73/5.00 for oral communication.	(a) No actions taken. (b) No actions taken.
	SLO h: The broad education necessary to understand the impact of engineering solutions in a global and societal context	The SLO was not assessed.	No results were available.	No actions taken.
	SLO i: A recognition of the need for, and an ability to engage in, life-long learning	The SLO was not assessed.	No results were available.	No actions taken.
	SLO j: A knowledge of contemporary issues	The SLO was not assessed.	No results were available.	No actions taken.
	SLO k: An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	(a) Assessment was done in EECE 343. A student demonstrates successful completion of this outcome by achieving a score of 4 of 8 (based on the assessment rubric shown in the attached table) on analog and digital design assignments. (b) The assessment was included in the senior exit survey.	(a) 100% of students assessed in EECE 343 achieved the outcome. (b) Senior exit survey indicates an average score of 3.83/5.00.	(a) No actions taken. (b) No actions taken.