Institutional Effectiveness Report
2018-19

Program: Electrical Engineering BS

College and Department: College of Engineering – Electrical & Computer Engineering

Contact: Allen MacKenzie

Mission: "Provide quality undergraduate and graduate education and perform research in the areas of

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

A departmentally developed curriculum map can be found in Appendix 1 that shows the connections between courses and student learning outcomes.

Relationship of Student Outcomes to Program Educational Objectives

Student Outcome		Program Educational Objective		
		i	ii	iii
1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	X	X	

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2.

Results:

Student Outcome 1: Identify, Formulate and Solve Complex Engineering Problems

Student outcome 1 is "an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics."

Historical Attainment of Student Outcome 1

	14-15	15-16	16-17	17-18	18-19
Capstone Assessment	4.62	4.62	4.60	4.38	4.34
Senior Exit Survey					

Attainment of this student outcome is highly satisfactory meeting the attainment threshold (HS, >3.75) for every reported year including 2018-2019 and for every assessment tool.

Student Outcome 4: Recognize Ethical and Professional Responsibilities and Make Informed Judgments

Student outcome 4 is "an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts."

Historical Attainment of Student Outcome 4

	14-15	15-16	16-17	17-18	18-19

Attainment of this student outcome met the highly satisfactory level of attainment (HS, >3.75) for 2018-2019 and for all other years.

Student Outcome 7: Acquire and Apply New Knowledge

Student outcome 7 is "an ability to acquire and apply new knowledge as needed, using appropriate learning strategies."

Historical Attainment of Student Outcome 7

	14-15	15-16	16-17	17-18	18-19
Senior Exit Survey	4.51	4.41	4.38	4.45	4.65
Faculty Course Assessment	4.81	3.71	4.11	4.49	3.70
Student Course Assessment	4.05	4.33	4.47	4.25	3.99

Attainment of this student outcome met the highly satisfactory level of attainment (HS, >3.75) for two of the metrics. The Faculty Course Assessment met the satisfactory level of attainment (S, >3.0) but met the highly satisfactory level of attainment for the two previous years. The satisfactory level of attainment does not warrant actions currently, so we will continue to monitor progress.

Modifications for Improvement:

Currently, all SOs have a highly satisfactory level of attainment. We will continue to monitor progress for all SOs and take action when necessary.

Appendices

1. Curriculum Map

Appendix 1: Curriculum Map

Course	Title	SO1	SO2	SO3	SO4	SO5	SO6	SO7
ECE 2001 ECE 2010	Computer Aided Engineering in ECE	*					*	