

## Institutional Effectiveness Report 2020-2021

**Program:** Electrical and Computer Engineering MS

**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 electrical and computer engineering.  
**Program Goals:**

PG 1: Graduates of the M.S. program will have the technical competence to be successful in the chosen area of study in electrical and computer engineering professional practice or research.

PG 2: Graduates of the M.S. program will have the skills to undertake or publish scholarly research.

PG 3: Graduates of the M.S. program will have the professional competence to successfully undertake

### Student Learning Outcomes:

Students of the MS program in Electrical and Computer Engineering will be able to:

SLO 1: Demonstrate clear understanding of the chosen area of emphasis in electrical and computer engineering covered in course material in the graduate program.

SLO 2: Apply advanced methods in the development of solutions in the chosen area of emphasis in electrical and computer engineering.

SLO 3: Give professional presentations or write scholarly manuscripts worthy of publication in peer reviewed journals.

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

**Assessment Methods:**

Course work required for

MSECE is as follows:

Thesis Track MS Program of Study	
ECE 6910 Intro to Graduate Research -1 credit	
Two ECE graduate breadth courses - 6 credits	
Elective courses (some may be outside ECE) - 9 credits	
Two ECE 6990 Research & Thesis courses - 6 credits	
	Total: 31 credits

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rectified. However, failure on the second attempt results in dismissal from the graduate program.

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Results:

Since the start of the pandemic in March 2020, many oral thesis defenses have been held via videoconference. In the transition to this online format, the completion of the survey was neglected for several months, and only 1 survey for a finishing M.S. student was conducted in 2020-2021. As such, we are not reporting survey data for the 2020-2021 academic year. Additional processes have been put in place to ensure that surveys are collected going forward; see below.

### Evaluation of Thesis and Defense

The following table lists presents the average ratings for the remaining questions asked in the Oral Defense and Thesis Assessment Form. This form has been in use since Fall of 2013

\*It is unclear how this data was tracked prior to the 2017-2018 academic year, and incomplete records are available for 2017-2018 and subsequent years. Even though publication or participation in the TTU Research Day became a degree requirement in the 2015-2016 academic year, adequate records of publications and research day participation were not being maintained. Additional processes have been put in place to ensure that this data is adequately collected and maintained going forward; see below.

**Modification(s) for Improvement:**

As noted above, a survey used to evaluate the quality of the thesis and defense5.9 (f5.9 (f)-3(c)1 (76 (o) 0.228 0 r3)-6 (-6 (



