

Graduate School: Program Learning Outcomes (PLOs)

Master of Science in Engineering Technology (MS in ET): Electrical Engineering Technology (EET) concentration

May 2023

PLO #1: Students will understand, interpret, or augment electrical engineering technology knowledge base.

PLO #1 satisfied by:

- a. Evaluate the theoretical and practical application of emerging technologies in electrical engineering technology such as protective relays, circuit simulation software, power systems analysis software, mathematical modeling software, or printed circuit board design software (EET 405, EET 514, EET 515, EET 560, EET 422, EET 423, or GEE 694).
- b. Apply cutting edge technologies in electrical engineering technology through graduate coursework projects or applied experiential learning projects (EET 514, EET 515, EET 423, EET 560, or GEE 694).
- c. Students will integrate multiple systems into a single, working, complex electrical, computer, or electromechanical system (EET 514, EET 515, EET 560, ENM 586, or GEE 694).
- d. Integrate different electrical engineering technologies into one uniform project deliverable (GEE 694).

PLO #2: Students will share electrical engineering technology expertise openly, effectively, and accurately.

PLO #2 satisfied by:

- a. Convert research concepts into cost effective production or manufacturing techniques by applying professional best practices in electrical engineering technology topics such as industrial control projects, printed circuit board manufacturing, power systems integration, and engineering economics-related projects (EET 515, EET 514, EET 422, EET 423, EET 486, EET 584, MET 440, or ENM 586).
- b. Explain complex electrical engineering technology projects to peers and EET faculty (EET 514, ENM 586, EET 486, EET 584, EET 560, or EET 515).
- c. Explain hands-on industrial engineering projects through a comprehensive presentation process; written or oral (GEE 695).

PLO #3: Students will demonstrate responsible application of engineering, the ethical practice of engineering, and proper engineering management strategies.

PLO #3 satisfied by:

- a. Discriminate most effective strategies in electrical engineering technology principles that are in the best interest of the broader public (EET 514, EET 560, EET 584, ENM 586, EET 486, or GEE 694).

- b. Discriminate most effective strategies in emerging technologies of electrical engineering technology that lend to the best interest of the broader public (EET 560, EET 486, ENM 586, or EET 584).
- c. Successfully implement team theory and personal conflict resolution in the practice of electrical engineering technology (ENM 586 or EET 486).
- d. Optimize the practice of engineering management within engineering organizations (ENM 586 or EET 486).
- e. Analyze the ethical implications of the engineering decision making process within engineering organizations (EET 584, ENM 586, or EET 486).