The following are the expected student outcomes for graduating seniors with majors in Electrical Engineering, Computer Engineering and General Engineering. Meeting these outcomes should prepare graduates to attain the program educational objectives.

Graduating seniors will have…

(a) see discipline-specific outcomes below

(b) an ability to design and conduct experiments, as well as to analyze and interpret data

(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

(d) an ability to function on multidisciplinary teams as an active member, servant-leader and/or mentor

(e) an ability to identify, specify, formulate, test and document engineering solutions to real-world problems

(f) an understanding of professional and ethical responsibility

(g) an ability to communicate effectively with various audiences on both complex technical and non-technical topics

(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, societal and local community context

(i) a recognition of the need for, and an ability to engage in life-long learning including an ability to proactively set and pursue personal learning goals

(j) a knowledge of contemporary issues

(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

(l) an understanding of the role of Christian ideals in professional and personal life

(m) an understanding of project management techniques

(n) ASE only – see discipline-specific outcomes
EE specific
(a) an ability to apply knowledge of mathematics, science, computer science and engineering to electrical engineering applications spanning the areas of hardware, firmware, and software systems

CPE specific
(a) an ability to apply knowledge of mathematics, science, computer science and engineering to computer engineering applications through developed skills in digital hardware and low-level software and fundamental skills in high-level programming and electronics

GEGR – NC specific
(a) an ability to apply knowledge of mathematics, science and engineering

GEGR – ASE specific
(a) an ability to apply knowledge of mathematics, science and engineering
(n) an ability to apply knowledge of electrical, mechanical, and thermal systems to create appropriate and sustainable engineering solutions with particular attention to their connection with unique local cultures and needs

GEGR – ME specific
(a) an ability to apply knowledge of mathematics, science and engineering to mechanical engineering applications spanning the areas of solid mechanics, thermal-fluid systems, and system design