

# College of Engineering and Computer Science Academic Learning Compacts

## **Electrical Engineering - B.S.E.E.**

#### Discipline Specific Knowledge, Skills, Behavior and Values

- 1. Graduates will have an ability to apply knowledge of mathematics, science, and engineering.
- 2. Graduates will have an ability to design and conduct experiments, as well as to analyze and interpret data.
- 3. Graduates will have 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.
- 4. Graduates will have an ability to function on multidisciplinary teams.
- 5. Graduates will have an ability to identify, formulate, and solve engineering problems.
- 6. Graduates will have an understanding of professional and ethical responsibility.
- 7. Graduates will have an ability to communicate effectively.
- 8. Graduates will have broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- 9. Graduates will have an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

#### **Critical Thinking**

- 1. Graduates will have an ability to apply knowledge of mathematics, science, and engineering.
- 2. Graduates will have an ability to design and conduct experiments, as well as to analyze and interpret data.
- 3. Graduates will have 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.
- 4. Graduates will have an ability to use the techniques, skills, and modern

engineering tools necessary for engineering practice.

#### Communication

- 1. Graduates will have an ability to function on multidisciplinary teams.
- 2. Graduates will have an ability to communicate effectively.

### **Assessment of Electrical Engineering - B.S.E.E. Outcomes**

These outcomes will be assessed using a variety of assessment methods, including:

 Data for the assessment are collected through surveys (alumni, graduating students, Industrial Advisory Board), undergraduate student forums, the Electrical Engineering Curriculum Oversight and Review committee, senior design course evaluation, and course assessment reports.