

The following learning targets represent the major concepts studied and assessed in this course.

## **Semester 1**

### **Unit 1: Project Management:**

- Documenting the Engineering Process
- Timelines
- Classroom/Project Management

### **Unit 2: Research:**

- Researching a Problem
- Justification of the Problem
- Analysis of Prior Solutions

### **Unit 3 Design:**

- Design Concepts Generation, Analysis, and Selection
- Brainstorming Possible Solutions
- Concept Development

## **Semester 2**

### **Unit 4: Prototype & Test:**

- Prototype Planning and Documentation
- Construction of a Testable Prototype
- Critical Design Review

### **Unit 5: Evaluation of Project and Process:**

- Presentation of the Design Process
- Writing Like an Engineer