



**Prerequisites:** EE prereqs: ECE 3210, 3710, 3810, 4090 and 4950; CpE prereqs: ECE 3270, 4090, 4950.

ME Prerequisites: All required 300-level ME courses and ME 4010 with C or better. Corequisites: ME 4021.

## Project Funding:

Lab equipment and tools are provided, and the project is funded from Duke Energy. Personal tools and equipment are self-funded by individual students. In lieu of requiring a textbook, each student is expected to be self-sufficient with basic tools and computer equipment.

## Class, Project Group, and Team Meetings

We will meet as follows during the semester. Week numbers are approximate. Further information, including specific dates, will be posted on Canvas.

- Our group will meet every week in Charleston or via WebEx. The time of the meeting is set for Wednesdays 2-3 PM in GEC-203.
- Special Events:– A poster and presentation session is held during the CAPER meeting in Charleston during the progress update at the CAPER Workshop (March 23-24, 2020, Crowne Plaza Charleston, 4831 Tanger Outlet Blvd., North Charleston, SC 29418). Attendance and a professional presentation and poster are **mandatory**. Additionally, other mandatory events may be scheduled near the end of the semester for some projects. (See Project Description)
- Tutorials – Typically several tutorials and industrial advisor interactions and technical visits are offered during the semester on topics that might be useful for the projects. Attendance is recommended and industrial advisor interactions are required.

## Team Structure:

All team members must participate both in the technical design work as well as in written and oral reporting. **It is not acceptable for individuals to be involved in only technical tasks or only reporting/management tasks.**

Each team must select a project manager (PM). The PM is responsible for submitting the weekly status reports, written reports and other deliverables throughout the semester.

Otherwise, the team structure and organization are up to you. Each individual is responsible for finding ways to contribute to the team effort, and each team is responsible for determining how to fully utilize all members. The most successful teams generally feature willing, diligent participation from all members.

Note that individual effort is taken into account through the individual grade modifier, which is based on instructor observation and peer evaluations.

## Dual Role of Instructor:

The instructor serves in dual roles in ECE 4960 and ME 4020.

Technical Supervisor/Consultant: During weekly meetings, office hours, etc., the instructor acts as a technical consultant and/or supervisor. Weekly meetings will be used to monitor progress and provide feedback. Technical questions are welcomed. In general, the instructor will not give you “the answer,” but point you in the appropriate direction to figure out an answer. In this role, the instructor is a collaborator.

Customer: While evaluating milestones, written reports, presentations, etc., the instructor acts as the interface to the customer (Duke Energy in this case). The customer will actively search for problems with your design and implementation and will demand evidence to back up claims about your system. In the role of customer, you should assume the instructor has no knowledge of the interactions that occurred while the instructor acted as consultant/supervisor.

### Grading:

Grading considers team as well as individual performance. Evaluation and Grading:

- |    |                              |      |
|----|------------------------------|------|
| 1. | Homework and Projects =      | 0%   |
| 2. | Design Projects and Report = | 100% |
| 3. | Tests =                      | 0%   |
| 4. | Final Exam =                 | 0%   |
| 5. | Laboratory Reports =         | 0%   |

It is **critical** that each team member contribute substantively to the project and that other teammates are aware of and understand the individual’s contributions. Peer Evaluation Forms will be collected after the final report is submitted. Peer Evaluations allow each individual to characterize his or her teammates’ contributions and performance.

The list of deliverables is described in the Project Description. Deadlines and detailed requirements for each deliverable will be posted on Canvas as the semester progresses.

### Lab and Office Etiquette:

The general work area is the GEC building and office cubicles are assigned to the team. Computers are required for modeling and design and available at GEC-304. Keep your work area clean and tidy throughout the semester. If you are doing anything that generates a lot dust or dirt, take precautions to protect equipment (e.g. covering with a cloth) and clean up after yourself (a shop-vac is available). Wood should be sawed outside.

### Important Dates are available on Clemson Website

**Changes to Syllabus:** The instructor reserves the right to make changes to this syllabus during the semester. Students will be given adequate notice in class of any changes.

**Agreement:** If you disagree with any of the policies or procedures spelled out above or cannot accept the demands of the course (i.e., the amount of time and work required), you need to drop the course as soon as possible. By staying in the course, you agree to comply with all the policies and procedures described in this syllabus.