PSET 290 Power Systems Capstone

Course Description: Students work in teams to complete a design project. Topics include: design concepts, modeling, detail and assembly drawings, bill of materials, vendors, costs, and manufacture of prototype.

Prerequisites(s): PSET 220, PSET 250 **Corequisite(s):** No corequisite

Lecture Hours: 1	Lab Hours: 2	Credit Hours: 2
Lab Fee: 70	Supplemental Fee: 0	Purpose:
☐ Transfer Assurance Guide Course (TAG)	☐ Transfer Module Course (TM)	
Course Format: Lec/Lab	Grading: A/B/C/D/F/I	
Delivery Method: □ Web	□ Hybrid	x Classroom
Semesters Offered: □ Fall	x Spring	□ Summer

Course Primary Text:

Title: No Textbook Required	Edition:

Supplemental Materials:

Course Outcomes:

1	ABET(a) - an ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities; *the application of circuit analysis and design, computer programming, associated software, analog and digital electronics, and microcomputers, and engineering standards to the building, testing, operation, and maintenance of electrical systems.*
2	ABET(b) - an ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge; *the applications of physics or chemistry to electrical/electronic(s) circuits in a rigorous mathematical environment at or above the level of algebra and trigonometry.*
3	ABET(d) - an ability to function effectively as a member of a technical team.
4	ABET(e) - an ability to identify, analyze, and solve narrowly defined engineering technology problems; *the application of circuit analysis and design, computer programming, associated software, analog and digital electronics, and microcomputers, and engineering standards to the building, testing, operation, and maintenance of electrical systems.*
5	ABET(f) - an ability to apply written, oral, and graphical communication in both technical and non- technical environments; and an ability to identify and use appropriate technical literature.
6	ABET(h) - an understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity.
7	ABET(i) - a commitment to quality, timeliness, and continuous improvement.

Course Topics:

Week 1-15	This capstone focuses on a design project. Therefore topics/coaching to be provided
	on an as needed basis depending on the design project that is selected.

Methods of Evaluation/Assessment

x Formative: x Summative

List assessment activities (e.g. quizzes, discussions, essays, research papers, debates, oral presentations, exams):

Weekly progress/design reviews to monitor progress and understanding (15%)
Team work assessment via team feedback assessment (15%)
Project presentation (15%)
Project design assessment (55%)

Course Keeper: Russ Campbell Date Completed: 4/19/2019