

ESG 441 CAPSTONE ENGINEERING DESIGN II (REQUIRED)

Credit: 3

COURSE CATALOG DESCRIPTION:

Student groups carry out the detailed design of the senior projects chosen during the first semester. A final and detailed design report is prepared.

PRE- OR COREQUISITE(S): ESG 440 Engineering Science Design III

TEXT(S) OR OTHER REQUIRED MATERIAL: None

COURSE LEARNING OUTCOMES	SOS	ASSESSMENT TOOLS
Understanding the process of taking a design and turning into a functioning prototype	a, b, c, d, e, f, g, j, k	Evaluation of progress reports, progress presentations, and final report
Understanding of the engineering process of design with iterative improvements and finding solution to problems which arise	b, c, d, e, g, h, j, k	Evaluation of progress reports, progress presentations, and final report
Maintain a budget while working within a defined time frame	c, d, f	Evaluation of progress reports and progress presentations; meetings with individual groups
Enhancement of team-work skills	f, g, i	Peer evaluations
Enhancement of written and oral communication skills	g	Evaluation of progress reports, progress presentations, poster, and final report

COURSE TOPICS:

- Process of turning a design into a working prototype

CLASS/ LABORATORY SCHEDULE:

ESG	441	Engineering Science Design IV	LEC	1	TUTH	3:50 PM	5:10 PM
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CURRICULUM

This course contributes 3 credit hours toward meeting the required 48 hours of engineering topics culminating in a major design experience.

STUDENT OUTCOMES (SCALE 1-3):

A	B	C	D	E	F	G	H	I	J	K
3	2	2	2	2	2	2	2	2	2	2

3 – Strongly supported

2 – Supported

1- Minimally supported

LEAD COORDINATOR(S) WHO PREPARED THIS DESCRIPTION AND DATE OF PREPARATION:

Christopher M. Weyant 5/17/2010