

EE 452 – Senior Capstone Project II-3 Hours
Required course

1. *2007-2008 Catalog description*
Second of two courses devoted to the Senior Design Project. Requires an oral presentation and a written report. Prerequisite: EE 450, EE 451
2. *Prerequisites by topics*
EE 450, EE 451
3. *Textbook (s) and/or other required material*
None
4. *Class Schedule:* One 6 hour lab session per week for 14 weeks plus meetings with project advisor
5. *Topics Covered (Outcomes influenced)*
 - Grading Policy and ECE Code of Conduct (7a,b,c,d,e,f,g,h,i,j,k)
 - Professional level criteria (7a,b,c,d,e,f,g,h,i,j,k)
 - Experimental, analytical, software development, computer simulation and research on the senior capstone project as directed by the faculty advisor. (7a,b,c,d,e,f,g,h,i,j,k)
 - Formal oral presentation of technical material (speech coach) (7h)
 - Project report (7b,c,d,e,g,j,k)
6. *Contribution of course to meeting the professional components*
Engineering Design - 100%
7. *Course Outcomes (Program Outcome contributions): In learning the course topics, the student will attain the following outcomes*
 - a. The student will act as a collaborator with advisors in implementing the senior capstone design project
(9A,B,C,D,F,G)
 - b. The student will do fair share of work on the senior capstone project (9A,B,C,D,F,G)
 - c. The student will plan, manage and implement the senior capstone project in a timely fashion
(9C,D,G)
 - d. The student will perform technical analysis, design, development, procurement, computer simulation
and experimental work on the senior capstone project (9A,B,C,D,F,G)
 - e. The student will document in detail the work associated with the senior capstone project
(9A,B,C,D,F,G)
 - f. The student will give an oral presentation on the progress of the senior capstone project
(9A,B,C,D,F,G)
 - g. The student will continuously update the senior capstone project web site established in the fall
semester (9A,B,C,D,F,G)
 - h. The student will use current audio visual technology to give a final oral presentation on the senior
capstone project during a senior project conference (9F)
 - i. The student will demonstrate the senior capstone project to faculty members and members of the
industrial advisory committee of the department (9A,B,C,D,F,G)
 - j. The student will prepare a well written final report on the senior capstone project (9A,B,C,D,F,G)
 - k. The student will follow the ECE Code of Conduct and interact appropriately with his/her lab partner
and classmates (9G)
8. The degree to which students attain the course outcomes is determined by the following grading policy.

The grade in EE 452 will be based on the following components:

1. Web page progress graded monthly 5%

- 2. Lab book checked weekly and graded monthly by project advisor 25%
- 3. Review of project status: two faculty members in addition to advisors will attend and grade 10%
- 4. Draft of final project report due 4/14/2008
- 5. Final oral presentation: two faculty members in addition to advisors will attend and grade 15%
- 6. Final project report 25%
- 7. Final project demonstration: two faculty members in addition to advisors will attend and grade 10%
- 8. Degree to which project meets Professional Level criteria 10%

There will be a 3% penalty per day off the final grade for any late deliverable.

You may receive an incomplete if any of the deliverables has not been satisfied at a reasonable level.

A grade of C corresponds to meeting the minimum competency required to understand course topics and meet course objectives.

Warning: Cheating will be dealt with as described in the *Academic Handbook*. The ECE Faculty has established the ECE Student Code of Conduct based on well known requirements of academic integrity as well as the ethical and professional conduct expected of an engineer. The ECE student code is posted on Blackboard.

9. *Relationship of course to program outcomes*

Label	Program Outcomes (A Graduate from the program will:)	Contribution
A	have knowledge of the mathematical and scientific foundation of electrical engineering	Strong
B	have knowledge of and the ability to apply techniques and technology of electrical engineering	Strong
C	complete a design project sequence, culminating in a capstone project at or near the professional level	Strong
D	understand that acquisition of new knowledge is needed for success in the electrical engineering profession	Strong
E	meet Bradley's general education requirements which are based on the principles of liberal education	NA
F	have experience in communicating technical information and working on teams	Strong
G	understand the importance of professional and ethical behavior	Strong

10. *Prepared by:* Winfred N. Anakwa, May 21, 2008