CE 431-432 SENIOR DESIGN PROJECT

Type (check one) Required: X Elective: __

2009-2010 Catalog Data: CE 431-432: Senior Design Project.
Interdisciplinary team design projects are initiated by the student (or suggested by the faculty) and approved by the faculty. Investigated and developed throughout the senior year by the students. Reports are presented in both oral and written forms. Professional registration, responsibility, and ethics. Also includes considerations of safety, reliability, aesthetics, social and environmental impact. Practitioner involvement is required in each project. Prerequisite: CE 315. Taken in sequence during the last two semesters before Graduation. Two semesters; four credits.

Prerequisite: CE 315

Co-Requisites: None

Textbook: None

Other Required Materials: None

Instructors: L. Yu Lin, K. Madhavan, S. Malasri, and G. McGinnis, Department of Civil and Environmental Engineering.

Course Objectives: To provide students with practical design experience in civil engineering projects.

Prerequisites by Topics: Demonstrated ability in civil engineering courses.

Topics: CE 431: Students complete project design for one option (**two Credits**)
Project proposals. Review of proposals. Progress reports.
Formal presentations. Final written report

CE 432: Students complete alternate solutions and reports (**two Credits**)
Progress reports. Formal presentation of projects. Submit final written report. Poster presentations at CBU [required].

Class Schedule: One 50-minute session per week.

Prepared by: K. Madhavan Date: January 8, 2010

Abetce4312.doc

Professional Component:

Category (check one)	___ Math/Basic Science __X_ Engineering ___ General Education ___ Other
Design (check one)	_X__ Significant ___ Some ___ None
Realistic Constraints (check all that apply)	_X__ Economic __X_ Environmental ___ Sustainability __X_Manufacturability __X_ Ethical __X_ Health & Safety __X_ Social ___ Political

Relationship to Program Outcomes:
Check all that apply:

__X_ (a) an ability to apply knowledge of mathematics, science, and engineering
__X_ (b) an ability to design and conduct experiments, as well as to analyze and interpret data
__X_ (c) an ability to design a system, component, or process to meet desired needs
__X_ (d) an ability to function on multi-disciplinary teams
__X_ (e) an ability to identify, formulate, and solve engineering problems
__X_ (f) an understanding of professional and ethical responsibility
_X__ (g) an ability to communicate effectively
___ (h) the broad education necessary to understand the impact of engineering solutions in a global and societal context
___ (i) a recognition of the need for and an ability to engage in life-long learning
___ (j) a knowledge of contemporary issues
__X_ (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice