REGULAR COURSE SYLLABUS

School of: Professional Studies
Department: Engineering Technology
CIP Code: 15.0201
Prefix & Course Number: CET 4140
Course Title: Concrete Design II
Check All That Apply: Required for Major: _____ Required for Minor: _____ Specified Elective: X
Required for Concentration: X Elective: X Service Course: _____
Credit Hours: 3 (3+0)
Total Contact Hours per semester (assuming 15-16 week semester):
Lecture 45 Lab 0 Internship 0 Practicum 0 Other (please specify type and hours): _____
Schedule Type(s): L Grading Mode(s): L
Variable Topics Courses (list restrictions, including the maximum number of hours that can be earned**):
** NOTE: This information must be included in the course description.
Restrictions (Variable Topics Course): _____
Prerequisite(s): CET 4120 with a grade of "C" or better; or permission of instructor
Corequisite(s): None
Prerequisite(s) or Corequisite(s): _____
Banner Enforced:
Prerequisite(s): _____
Corequisite(s): _____
Prerequisite(s) or Corequisite(s): _____
APPROVED: ___________________________ 3 Apr 08
Department Chair OR Program Director

______________________________ 4/8/08
Dean OR Associate Dean

______________________________ 5/8/08
Associate VP, Academic Affairs

*If crosslisted, attach completed Course Crosslisting Agreement Form
Catalog Course Description:
This course is a continuation of the fundamentals introduced in Concrete Design I, with emphasis on the analysis and design of columns, footings, retaining walls, two-way slabs, and introduction of principles of prestressed concrete.

Required Reading and Other Materials will be equivalent to:
2. *ACI 318-05 CodeOptional (recommended)* American Concrete Institute.

Specific, Measurable Student Behavioral Learning Objectives:
Upon completion of this course the student should be able to:
1. Design of short and slender concrete columns, concrete footings and foundations and concrete retaining walls.
2. Design of beams and two-way slabs with application of fundamental principles of direct design method and equivalent method.
3. Examine fundamental principles of prestressed concrete structures.

Detailed Outline of Course Content (Major Topics and Subtopics) or Outline of Field Experience/Internship (experience, responsibilities and supervision):
I. Column design
   A. Design of short columns subject to axial load and bending.
   B. Design of slender columns.
II. Footings and foundations
III. Retaining walls
IV. Reinforced concrete beam design
V. Two-way slab design
   A. Direct design method
   B. Equivalent frame method
VI. Prestressed concrete

Evaluation of Student Performance:
1. Assigned homework problems
2. Written examinations
3. Final project and oral presentation