REGULAR COURSE SYLLABUS

School of: Professional Studies
Department: Engineering Technology
CIP Code: 15.0201
Prefix & Course Number: CET 4450
Crosslisted With*: _____
Course Title: Timber Design
Check All That Apply: Required for Major: _____ Required for Minor: _____ Specified Elective: _____
Required for Concentration: X Elective: _____ 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 3170 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): _____

APPROVED: ____________________________ 3/21/08
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
Prefix and Course Number: CET 4450
Prerequisite(s) or Corequisite(s): _____

Catalog Course Description:
This course focuses on the analysis and design of wood structures based on the latest edition of the National Design Specifications for Wood Construction and Supplement.

Required Reading and Other Materials will be equivalent to:

Specific, Measurable Student Behavioral Learning Objectives:
Upon completion of this course the student should be able to:
1. Formulate familiarity with the National Design Specifications (NDS) for Wood Construction.
2. Formulate the fundamental analysis and design techniques required for the design of structural timber members and connections.
3. Design of structural timber members in accordance with the current design codes.
4. Analyze timber structures for stresses and deformation.
5. Compare design procedures and results for Allowable Stress Design (ASD) and Load Resistance Factor Design (LRFD)

Detailed Outline of Course Content (Major Topics and Subtopics) or Outline of Field Experience/Internship (experience, responsibilities and supervision):

I. Introduction of General Wood Information and Loads Imposed on Structural Members
   A. Wood buildings and design criteria
   B. Design loads
   C. Behavior of structures under loads and forces
   D. Properties of wood and lumber grades
   E. Structural glued laminated timber

II. Analysis and Design of Wood Structures
    A. Beam design
    B. Axial forces and combined bending and axial forces

III. Plywood and Other Wood Structural Panels
     A. Horizontal diaphragms
     B. Shearwalls

IV. Wood Connections
    A. Nailed and stapled connections
    B. Bolts, log bolts and other connectors
    C. Connection hardware

Evaluation of Student Performance:
1. Assigned design problems
2. Written examinations
3. Oral presentation