NEW JERSEY INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ENGINEERING TECHNOLOGY
CONSTRUCTION ENGINEERING TECHNOLOGY

CET 331-101
STRUCTURAL SYSTEMS
SPRING 2006 FMH 404
MON 6:00 PM TO 9:05 PM

DR. DAVID WASHINGTON, ASSOCIATE PROFESSOR
OFFICE# 973-642-7915 RM# GITC 2504
OFFICE HRS. MON. 5:00PM TO 6:00PM

Website: http://web.njit.edu/~washd **Email**: washd@adm.njit.edu

Main Text: DESIGN OF WOOD STRUCTURE, BY DONALD E. BREYER
NATIONAL DESIGN SPECIFICATION
CALL NDS FOR CURRENT COST FOR STUDENTS: 1-800-890-7732

Industrial Lecturers and Field Trips:
SIMPSON STRONGTIE (FASTENERS AND CONNECTIONS)
JOHN BACHENSKI FROM INTERNATIONAL MASONRY INSTITUTE (MASONRY LOAD BEARING)
AMERICAN PLYWOOD ASSOCIATION (ENGINEERING WOOD LUMBER)

Course Description: Prerequisite: Strength of Materials and basic course in steel and concrete design. Study of types and behavior of modern structures using both analytical and intuitive techniques. Examples include beam and column, one - and two -way slab systems, wood and masonry systems, and wind and seismic analysis.

Concepts and Skills Developed:
1. Selecting appropriate construction materials and practices
2. Applying basic technical concepts to the solution of construction problems involving Structures and Construction Safety
3. Performing standard analysis and design in at least one recognized technical specialty appropriate to the goals of the program

Software:
MDSOLIDS FROM WEBSITE HTTP://WWW.MDSOLIDS.COM/INDEX.HTML
APA SOFTWARE SEE INSTRUCTOR

SESSION 1.(Mon 9/11) Introduction to Course
and Overview and Strength of Materials Review

SESSION 2.(Mon 9/18) Strength of Materials Review

SESSION 3.(Mon 9/25) Design Loads - **Test#1**

SESSION 4.(Mon 10/2) Design Loads

SESSION 5.(Mon 10/9) Design Loads - **Test#2**

SESSION 6.(Mon 10/16) Design of Wood Structures

SESSION 7.(Mon 10/23) Design of Wood Structures

SESSION 8.(Mon 10/30) Design of Wood Structures - **Midterm Exam**

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CET 331-002
STRUCTURAL SYSTEMS
SPRING 2006 FMH 404
MON 6:00 PM TO 9:05 PM

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SESSION 9.(Mon 11/6) Masonry Design
LAST DAY OF WITHDRAWAL - NOVEMBER 6, MONDAY

SESSION 10.(Mon 11/13) Masonry Design

SESSION 11.(Mon 11/20) Masonry Design -**Test#3**

SESSION 12.(Mon 11/27) Combined Bending Problems
(**Thanksgiving Recess** - No Classes Scheduled - Nov. 23 -Nov. 26, 2006)

SESSION 13.(Mon 12/4) Miscellaneous Topics Not Covered

SESSION 14.(Mon 12/11) Design of Wood Structures

FINAL EXAM

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Course Policy:

Homeworks/Class Sample Problems:

All homeworks are due ONE week after it has been assigned. No homeworks will be accepted one week after its due date or after it has been reviewed in class. All homeworks will be graded on the basis of the students attempt to understand the concept presented in the text or class. Solutions will be posted on the web, and students are responsible for checking their work and asking questions during the class or office hours.

Class sample problems are attempted with teacher in class and turned in at the end of class. They are checked off by teacher and the final submission is due by the class following each exam. No credit will be given after this date.

ALL submissions will be kept by the Instructor for the purpose of ABET and for assessment purposes. It is the responsibility of each student to copy their work for their own study purposes.

Attendance :
A student who misses a class is still responsible for submitting materials in on time or must give adequate notice of any late submittals to the professor before the due date.

Final Grades:

The final grade for the course will be determined by weighing the student's effort as follows:

Homework/Sample Problems/quizzes	15%
Tests	15%
Term Project/Field Trip	15%
Midterm Exam	25%
Final Exam	30%

The final letter grade will be determined by the total number of points received during the course. Any variations to any of the above requirements are at the sole discretion of the instructor.

Exams and Quizzes:

All exams are cumulative unless otherwise noted by the instructor. All exams are open book and open notes. Makeup examinations will not be given. Therefore, if any student has a valid reason for missing an exam, they should discuss with the instructor an alternate method of weighing the final grade.

Office Hours/ Consultation:

Hours for advisement and consultation can be arranged with the Instructor at a mutually convenient time. Please send emails and/ or notify instructor before coming to office.