



New Jersey's Science & Technology University

DEPARTMENT OF ENGINEERING TECHNOLOGY  
CONSTRUCTION ENGINEERING TECHNOLOGY

CET 431-001 FALL 2008  
CONSTRUCTION TESTING  
FMH 110 MON 5:45 PM TO 9:50PM

DR. DAVID WASHINGTON  
ASSOCIATE PROFESSOR  
OFFICE# 973-642-7915 RM# GITC 2504  
OFFICE HRS. 4:45PM TO 5:45PM, MON

COURSE OUTLINE

Website: [http:// web.njit.edu/~washd](http://web.njit.edu/~washd)

Email: [http:washd@adm.njit.edu](mailto:http:washd@adm.njit.edu)

**Main Text:** Basic Construction Materials, Latest Edition,  
by Theodore W. Marotta & Charles A. Herubim

**Supplementary References:** Civil Engineering Materials, 1995, by Shan Somayaji  
Construction- Principles, Materials and Methods, 6th Edition  
by Olin, Schmidt, Lewis

**Prerequisite:** Strength of Materials

**Course Description:** Exposure to a variety of construction related field tests and field testing equipment. Includes concrete mix design, concrete testing, soil density and compaction, asphalt tests, load testing of wood, mortar analysis and testing, brick and CMU, and quality control methods and procedures for finishes.

**MANDATORY Field Trip:** TILCON INC. - QUARRY AND ASPHALT PLANT, MT. HOPE, N.J. s.

**Concepts and Skills Developed:**

1. Producing and utilizing design, construction and operations documents
2. Performing standard analysis and design in at least one recognized technical specialty appropriate to the goals of the program
3. Selecting appropriate construction materials and practices
4. Applying Geotechniques and Structures

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<b>SESSION</b>	<b>1</b>	8-Sep	Course Introduction And Overview/Pretest Strength of Materials Review /Aggregates
<b>SESSION</b>	<b>2</b>	15-Sep	AGGREGATES
<b>SESSION</b>	<b>3</b>	22-Sep	AGGREGATES
<b>SESSION</b>	<b>4</b>	29-Sep	END AGGREGATES/INTRODUCE CONCRETE MIX DESIGN
<b>SESSION</b>	<b>5</b>	6-Oct	TEST#1 / CONCRETE MIX DESIGN
<b>SESSION</b>	<b>6</b>	13-Oct	CONCRETE MIX DESIGN



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COURSE OUTLINE (CONTINUED)

<b>SESSION</b>	<b>7</b>	20-Oct	CONCRETE MIX DESIGN
<b>SESSION</b>	<b>8</b>	27-Oct	TEST#2/ CONCRETE MIX DESIGN
<b>SESSION</b>	<b>9</b>	3-Nov	CONCRETE MIX DESIGN
<b>SESSION</b>	<b>10</b>	10-Nov	(NOV. 3RD IS THE LAST DAY OF WITHDRAWAL) ASPHALT
<b>SESSION</b>	<b>11</b>	17-Nov	ASPHALT
<b>SESSION</b>	<b>12</b>	24-Nov	WOOD AND MASONRY (NOVEMBER 27TH -30TH - THANKSGIVING BREAK)
<b>SESSION</b>	<b>13</b>	1-Dec	WOOD AND MASONRY
<b>SESSION</b>	<b>14</b>	8-Dec	CLASS PRESENTATION AND FINAL EXAM REVIEW

**FINAL EXAM - TBA**



## COURSE POLICY

### HOMEWORKS AND REPORTS:

All reports are due one week after the last day of the lab, and all homeworks are due one week after it has been assigned. No homework or lab 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 student attempt to understand the concept presented in the text or class. Reports must follow the outline or format as directed in class.

### ATTENDANCE:

Attendance is absolutely mandatory!! Students are responsible for being sure they are recorded on the roster each day, and not at a later date. The Dean of Students requirements for attendance are applicable.

The student is responsible for those materials covered in class and any materials assigned as readings as noted by instructor. A student who misses a class is still responsible for submitting materials in on time or they can give adequate notice of any late submittals to the professor before the due date.

### FINAL GRADE:

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

Homework and Lab Work	20%
Tests	20%
Attendance	15%
Field Trip/Papers/Projects	20%
Final Exam	25%

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.

### Exams and Quizzes:

All exams are cumulative unless otherwise noted by the instructor.

All exams are closed book and closed notes. A formula sheet written by the student will be accepted in accordance with the instructor's limitations.

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 sole discretion of the instructor.

### 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 the office.