

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

CET 413-102
ENVIRONMENTAL SCIENCE SPRING 2007
KUPF 118 TUES 6:00 PM - 9:00 PM

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

COURSE OUTLINE

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

Main Text: BASIC ENVIRONMENTAL TECHNOLOGY -WATER SUPPLY, WASTE MANAGEMENT, AND POLLUTION CONTROL BY JERRY R. NATHANSON (Fourth Edition)

NOTE: ONE PAGE SUMMARY REQUIRED FOR ALL INDUSTRIAL SPEAKERS AND TRIPS

FIELD TRIP: NUTLEY PARK, WASTE MANAGEMENT SUBSTATION (BASED ON AVAILABILITY)
LABS: FLUIDS LAB, GEOENVIRONMENTAL LAB, AND IN-CLASS LAB (BASED ON AVAILABILITY)
INDUSTRIAL SPEAKERS TO BE ANNOUNCED BASED ON AVAILABILITY

Course Objectives: An introduction to construction-related environmental science topics, including basic environmental chemistry, geology, ground water hydrology, basic air quality, surface water run-off, erosion and sedimentation control, indoor air quality, and vibration analysis. Case studies cover various construction activities with respect to their effect on the environment and the manner in which they can be controlled.

Concepts and Skills Developed:

1. Producing and utilizing design of Hydrology Systems
2. Applying Hydraulics and Fluid Mechanics to Construction Systems

SESSION 1. (Tues 1/16). Introduction to Course and Overview of Environmental Technology

SESSION 2. (Tues 1/23). Hydraulics (Professor Washington is Away)

SESSION 3. (Tues 1/30).Hydrology

SESSION 4. (Tues 2/6) Water Quality

SESSION 5. (Tues 2/13) Water Pollution/**Test#1**

SESSION 6. (Tues 2/20) Water Pollution

SESSION 7. (Tues 2/27) Drinking Water Purification

SESSION 8. (Tues 3/6) **Midterm**

Spring Recess is from the March 12th to the 18th

SESSION 9. (Tues 3/20) Sanitary Sewer Systems
March 26th is the last day of Withdrawal

SESSION 10. (Tues 3/27) Stormwater Management

SESSION 11. (Tues 4/3) Municipal Solid Waste/**Test#2**

SESSION 12. (Tues 4/10) Wastewater Treatment and Disposal

SESSION 13 (Tues 4/17) Hazardous Waste Management and Class Presentations

SESSION 14. (Tues 4/24) Class Presentations and Final Exam Review

FINAL EXAM

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Course Policy:

Homeworks/Sample Problems and Reports:

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. Please Note: It is assumed that all students are computer literate and can perform research on the internet for their assignments

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 Problem/Quizzes and Labs	15%
Tests	15%
Midterm	25%
Term Project/Field Trip	15%
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 closed book and closed notes. Two Formula sheet sides per exam is permitted. For example, on the second exam you are permitted four sides. [# of exam x 2 sides]

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.