UNIVERSITY OF CONNECTICUT
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

UPDATED TENTATIVE COURSE SYLLABUS

CE 3520 – Civil Engineering Materials – Spring 2020

Course Coordinator: Kay Wille, Ph.D, FLC 324, 6-2074
Guest Lecturer: Nefeli Bompoti, nefeli.bompoti@uconn.edu
James Mahoney, james.mahoney@uconn.edu

Course Coordinator: Kay Wille, Ph.D, FLC 324, 6-2074
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Guest Lecturer: Nefeli Bompoti
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James Mahoney
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Virtual Office hours: Mo 1:25 – 2:15 PM and by appt.
Virtual Office: https://uconn-cmr.webex.com/meet/kaw10012

Lecture (UTEB 175)  Lab sessions (CAST 106)
Mo 1:25 – 2:15 PM  Tue: section 001 (8am – 11am)
Tue: section 002 (11am – 2pm)
Thu: section 003 (8am – 11am)
Thu: section 004 (11am – 2pm)

Lecture: No in-class lectures will be provided for the rest of the semester. Information which would have been shared during lecture time will be made available as lecture slides. This information is only provided to further the understanding of the lab activities. Virtual office hours during lecture time will be available if you have any questions or need clarification. Please follow the webEx link provided above.

Lab sessions: No lab activities will be performed for the rest of the semester. Lab hand-outs will still be provided. Pre-lab and post-lab quizzes will still need to be submitted. Instead of the lab activities lab instructional videos and data sets will be made available so that you can work on a group lab report (maximum 4 students for each group). The lab report will be submitted to a designated folder on HuskyCT.

Content Tests: The remaining 2 content tests (#5 and #6) will be made available through HuskyCT. Information will be made available through content videos and assigned book chapters.

Lab Manager: Jonathon Drasdis, jonathon.drasdis@uconn.edu, FLC 322, 6-3211
Graduate Teaching Assistant: Rebekah Thielman, rebekah.thielman@uconn.edu
Bijaya Rai, bijaya.rai@uconn.edu

Lab Manual & Texts:
Lab: CE3520 Lab Handouts (available on huskyCT)
Lecture: Materials for Civil and Construction Engineers, Mamlouk and Zaniewski; 4th Edition. (Required)
Textbook used in your Soil Mechanics course & classnotes (optional)

Description:
This course presents the basic principles and engineering properties of metals, soil, concrete, asphalt, and wood; laboratory measurement of properties; and interpretation of results.

Grading: Tentative Distribution of points
Pre-lab Quizzes 15% (in preparation of the upcoming lab, individual)
Laboratory Exercises 45% (Lab results write-up, one write-up for each group)
Post-lab Quizzes 10% (based on laboratory exercises, individual)
Content Tests 30% (in class, module specific, in total 6, individual)

Educational Outcomes:
Upon completion of this course, students should be proficient in the ability to:
1. Learn the properties and characterization of main civil engineering materials such as metal, soil, aggregate, concrete, asphalt, wood, etc.;
2. Conduct laboratory tests of civil engineering materials;
3. Develop technical writing skills and experience working as a group.
Laboratory and Lectures:
Description: The laboratory course is organized into topical modules. The laboratory exercises follow theoretical introductions from the lecture portion of CE3520. You are expected to come to Lab having carefully read through the laboratory handout available on HuskyCT. Lab exercise results and reports will be submitted the following Lab. The Instructor & TA will collect and grade lab exercises and reports. In certain circumstances (e.g., documented illness), a student may attend a different lab section provided that prior authorization was given. Student grades will be based on lab exercises results & summary submitted as a group. Lab will count as 45% of your final course grade. Pre-lab quizzes and post-lab quizzes will be available on HuskyCT and will count 15% and 10% of your course grade, respectively. Six in class content tests will be taken during the semester. Material for these content tests will be provided through reading assignments and instructional videos uploaded to HuskyCT. Content tests will count as 30% of your final course grade. The guidelines and expectations for the lab exercises/reports will be discussed in class.

Class Policy:
Attendance: Regular and punctual attendance in lecture is strongly encouraged. While certain charts, figures, tables, and other materials presented in lecture may be posted on HuskyCT, it is critical that students attend the lecture to understand the context in which they are applied to solving problems. In other words, your textbook and supplemental materials are excellent resources, but are not adequate substitutes for the lecture. In the event of any absence, it is the responsibility of the student to obtain the notes for that class as well as any handout materials or information that may have been announced.

Academic Integrity: Students are expected to behave in a professional manner. Cheating, plagiarism, self-plagiarism, and copying are considered to be severe offenses. Any collaborative behavior (talking, discussing, copying) during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action. Unless otherwise specified, all work in this course is considered an individual exercise. Students are permitted to work on the problem sets together in collaborative fashion; however, the assignments must be turned in on an individual basis. This policy does not permit splitting of assigned problems, as any act of copying without actually working on a given problem is considered of form of plagiarism. The relevant university policy on student conduct and academic integrity are detailed in Section IV and Appendix A of The Student Code, which includes the following relevant passages.1

Academic misconduct is dishonest or unethical academic behavior that includes, but is not limited, to misrepresenting mastery in an academic area (e.g. cheating), intentionally or knowingly failing to properly credit information, research or ideas to their rightful originators or representing such information, research or ideas as your own (e.g. plagiarism). The appropriate academic consequence for serious offenses is generally considered to be failure in the course. For offenses regarding small portions of the course work, failure for that portion is suggested with the requirement that the student repeat the work for no credit.

1Community Standards. Responsibilities of Community Life: The Student Code, Division of Student Affairs, University of Connecticut, 2009.

Classroom expectations: You are expected to arrive before the class is scheduled to begin and remain in your seat during the entire scheduled class time. If you have a cell phone with you, silence the ringer before coming to class. Other electronic devices, such as tablets or laptops, are allowed during the lecture as long as no other students get distracted and find it more difficult to follow the lecture.

Disability: The Center for Students with Disabilities (CSD) at UConn provides accommodations and services for qualified students with disabilities. If you have a documented disability for which you wish to request academic accommodations and have not contacted the CSD, please do so as soon as possible. The CSD is located in Wilbur Cross, Room 204 and can be reached at (860) 486-2020 or at csd@uconn.edu. Detailed information regarding the accommodations process is also available on their website at www.csd.uconn.edu.

University Resources:
UConn provides a number of important resources designed to help students maximize their academic potential and overall college experience.

- UConn Writing Center (http://www.writingcenter.uconn.edu/)
- Quantitative Learning Center (http://www.qcenter.uconn.edu/)
- Digital Learning Center (http://dlc.uconn.edu/about.html)
- Academic Achievement Center (http://web2.uconn.edu/uconnconnects/AAC.htm/)
- Counseling and Mental Health Services (http://www.cmhs.uconn.edu/)
- Sexual Violence Awareness (http://sexualviolence.uconn.edu/)
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships (http://policy.uconn.edu/?p=2884/)
- Sexual Assault Response Policy (http://policy.uconn.edu/?p=2139/)
Week | Date | Day | Topic Module | Instructor | Reading
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1 | 20-Jan | Mo | - | - | -
2 | 2/23-Jan | Tu/Th | No Lab – Safety Test online | - | -
2 | 27-Jan | Mo | Introduction / Testing Devices | Bijaya / Dr. Wille | Ch. 1
3 | 2/30-Jan | Tu/Th | Lab 1- Measuring Devices | Bijaya | Appendix 1
3 | 3-Feb | Mo | Metals Properties and Testing (Test #1) | Bijaya / Dr. Wille | Ch. 3 & 4 (Section 4.3 only)
4 | 4/6-Feb | Tu/Th | Lab 2- Tension, Torsion | Bijaya | Appendix 2 & 3
4 | 10-Feb | Mo | Sieve and Hydrometer Analysis | Rebekah / Dr. Wille | PPT (HuskyCT), Review sieve & hydrometer notes from CE3510
4 | 11/13-Feb | Tu/Th | Lab 3- Sieve and Hydrometer Analysis | Rebekah and Bijaya | Appendix 7
5 | 17-Feb | Mo | Aggregates and Specific Gravity (Test #2) | Bijaya / Dr. Wille | Ch. 5
5 | 18/20-Feb | Tu/Th | Lab 4- Specific Gravity | Bijaya | Appendix 8 & 9
6 | 24-Feb | Mo | Portland Cement (Test #3) Concrete Mix Design | Dr. Wille | Ch. 6
6 | 25/27-Feb | Tu/Th | No Lab | - | -
7 | 2-Mar | Mo | Concrete (Test #4) | Bijaya / Dr. Wille | Ch. 7
7 | 3/5-Mar | Tu/Th | Lab 5- Concrete Mix, Slump test, and Cylinder Casting | Bijaya | Appendix 11 & 17
8 | 9-Mar | Mo | No lecture | - | -
8 | 10/12-Mar | Tu/Th | Lab 6- 7-day concrete compression testing | Bijaya | Appendix 17
15 | 15-21-Mar | Tu/Th | Spring Recess | - | -
9 | 23-Mar | Mo | Asphalt Materials (Test #5) | Rebekah / Dr. Wille | Ch. 9
9 | 24/26-Mar | Tu/Th | Lab 7- Video about Asphalt | Rebekah / Mahoney | Appendix 7
10 | 30-Mar | Mo | Wood Materials (Test #6) | Bijaya / Dr. Wille | Ch. 10
10 | 31/2- Ma/Ap | Tu/Th | Lab 8- Video about Wood and Metals bending 3rd concrete compression testing | Bijaya | Appendix 30
11 | 6-Apr | Mo | Lecture slides about Proctor Compaction, Bulk Density, Voids | Rebekah / Dr. Bompoti | Review soils compaction testing notes
11 | 7/9-Apr | Tu/Th | Lab 9- Video about Proctor Compaction | Rebekah | -
12 | 13-Mar | Mo | Slides about Plasticity | Rebekah | Review soils plasticity
12 | 14/16- Apr | Tu/Th | Lab 10- Video about Plasticity | Rebekah | -
13 | 20- Apr | Mo | Slides about Direct Shear and soil strength | Rebekah / Dr. Bompoti | Review soils strength & Direct Shear notes from CE3510
13 | 21/23- Apr | Tu/Th | Lab 11- Video about Direct Shear testing on soil | Rebekah | -
14 | 27-Apr | Mo | Soil Strength | Rebekah / Dr. Wille | Review soils strength & UC Test notes from CE3510
14 | 28/30-Apr | Tu/Th | Lab 12- Video about Unconfined Compression on Soil | Rebekah | -
15 | 4-9-May | No Final Exam | - | - | -

This schedule is tentative and subject to change. (*) as subject to change if there is a class/lab cancellation during the semester. “No Lab / Lecture” periods are available as make-up dates.

Disclaimer: All information on this syllabus is tentative, and the instructor reserves the right to make revisions as necessary.