**TENTATIVE COURSE SYLLABUS**

# CE 3520 – Civil Engineering Materials – Spring 2017

**Kay Wille, Ph.D, FLC 324**, 6-2074
kay.wille@uconn.edu
Office hours: by appt.

**Maria Chrysochoou, Ph.D, FLC 319**, 6-3594
maria.chrysochoou@uconn.edu
Office hours: by appt.

**Lecture:**
Mo 1:25 – 2:15 AM  Room: UTEB 175

**Lab session (CAST 106):**
Tuesday: section 001 (8am – 11am), section 002 (11am – 2pm)
Thursday: section 003 (8am – 11am), section 004 (11am – 2pm)

**Lab Instructor:** Jonathon Drasdis, jonathon.drasdis@uconn.edu, FLC 322, 6-3211
**Graduate Teaching Assistant:** Section 1 & 2: Ghezae Fisseha, ghezae.fisseha@uconn.edu
Section 3 & 4*:* Jingyue Zhang, jingyue.zhang@uconn.edu

**Lab Manual & Texts:**
Lab: CE3520 Lab Manual (required)
Lecture: Materials for Civil and Construction Engineers, Mamlouk and Zaniewski; 3rd 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**

| | |
|---|---|
| Laboratory Exercises | 70% (Lab results write-up and pre-lab quiz) |
| Content Quizzes | 30% (in class, module specific, in total 6) |

**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:**
*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 module in the CE3520 Lab Manual. 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 individually, as well as attendance and completion of the pre-lab quiz. The guidelines and expectations for the lab exercises/reports will be discussed in class. Lab will count as 70% of your final course grade.

**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.

[1]Community 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//)

## Proposed Schedule:

| Week | Date | Day | Topic Module | Instructor | **Reading** (Ch. # for Mamlouk & Zaniewski) |
|---|---|---|---|---|---|
| 1 | 16-Jan | Mo | No Class | | |
| | 17/19-Jan | T/Th | **No Lab** | | Ch. 1 |
| | 23-Jan | Mo | Introduction / Testing Devices | Kay Wille | Ch. 1 |
| 2 | 24/26-Jan | T/Th | **Lab 1**-Measuring Devices | Jonathon Drasdis | Appendix 1 |
| | 30-Jan | Mo | Metals Properties and Testing (**Quiz #1**) | Arash Zaghi | Ch. 3 & 4 (Section 4.3 only) |
| 3 | 31/1-Feb | T/Th | **Lab 2**-Tension, Torsion, Flexure of Metals | Jonathon Drasdis | Appendix 2 & 3 |
| | 6-Feb | Mo | **No Lecture*** | | PPT (HuskyCT), Review sieve & hydrometer notes from CE3510, |
| 4 | 7/9-Feb | T/Th | **Lab 3**- Sieve and Hydrometer Analysis | Jonathon Drasdis | Appendix 6 |
| | 13-Feb | Mo | Aggregates and Specific Gravity (**Quiz #2**) | Kay Wille | Ch. 5, review soils plasticity notes |
| 5 | 14/16-Feb | T/Th | **Lab 4**- Plasticity & Specific Gravity | Jonathon Drasdis | Appendix 7 & 8 |
| | 20-Feb | Mo | Asphalt Materials (**Quiz #3**) | Kay Wille | Ch. 9 |
| 6 | 21/23-Feb | T/Th | **Lab 5**- Tour CAP Lab | James Mahoney | |
| | 27-Feb | Mo | Portland Cement (**Quiz #4**) | Kay Wille | Ch. 6 |
| 7 | 1/3-Mar | T/Th | **No lab (make-up, if needed)** | | |
| | 6-Mar | Mo | Proctor Compaction, Bulk Density, Voids | Maria Chrysochoou | Review soils compaction testing notes |
| 8 | 7/9-Mar | T/Th | **Lab 6**- Proctor Compaction | Jonathon Drasdis | |
| | 13-Mar | Mo | **SPRING BREAK** | | |
| | 20-Mar | Mo | Concrete (**Quiz #5**) | Kay Wille | Ch. 7 |
| 9 | 21/23-Mar | T/Th | **Lab 7**- Concrete Mix, Slump test, and Cylinder Casting | Jonathon Drasdis | Appendix 10,11 & 14 |
| | 27-Mar | Mo | **No Lecture*** | | |
| 10 | 28/30-Mar | T/Th | **Lab 8**- 7-day concrete compression testing | Jonathon Drasdis | Appendix 16 |
| | 3-Apr | Mo | Soil Strength | Maria Chrysochoou | Review soils strength & UC Test notes from CE3510 |
| 11 | 4/6-Apr | T/Th | **Lab 9**- Unconfined Compression on Soil | Jonathon Drasdis | |
| | 10-Apr | Mo | **No Lecture*** | | Review soils strength & Direct Shear notes from CE3510 |
| 12 | 11/13-Apr | T/Th | **Lab 10**- Direct Shear testing on soil | Jonathon Drasdis | |
| | 17-Apr | Mo | Wood Materials (**Quiz #6**) | Kay Wille | Ch. 10 |
| 13 | 18/20-Apr | T/Th | **Lab 11**- Wood bending & 28-day concrete compression testing | Jonathon Drasdis | Appendix 29 |
| | 24-Apr | Mo | Lab Make-up period, if needed | | |
| 14 | 25/27-Apr | T/Th | If needed | | |
| 15 | 1-May | M | **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.