Instructor: Dr. Xinbao Yu, Ph.D., P.E., Assistant Professor

Office Number: NH 429; Tel 817-272-1243; Email, Xinbao@uta.edu

Office Hours: Monday and Thursday, 1-3pm; other time by appointment

Time and Place of Class Meetings: WH 210, Tue and Thu 9:30 -10:50am

Teaching Assistant: Rakib Hasan, email: mohammadrasan@mavs.uta.edu, NH 236; Office Hours: Tue/Thu, 3-5pm

Description of Course Content: Provides a fundamental understanding of the engineering properties and mechanical behavior of soil materials and their main applications in geotechnical engineering practice. Main course topics: soil classification, compaction, permeability, compressibility (consolidation), and shear strength. Prerequisite: Grade of C or better in CE 2313; concurrent enrollment in CE 3143.

Student Learning Outcomes: Students will be able to: 1) apply fundamental math, science, and engineering principles to solve soil mechanics problems and 2) apply soil mechanics theory to analyze common geotechnical engineering problems.

Student Outcomes Addressed: The following CE-ABET learning outcomes will be covered and the one in bold font will be covered and tested explicitly.

- a - Ability to apply knowledge of mathematics, science, and engineering. (T_E)
- b_1 - Ability to design and conduct experiments. (T_I)
- b_2 - Ability to analyze and interpret data. (C_E)
- c - Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. (T_I)
- e - Ability to identify, formulate, and solve engineering problems. (T_E)
- f - Understanding of professional and ethical responsibility. (C_I)
- i - A recognition of the need for, and an ability to engage in life-long learning. (T_I)
- j - Knowledge of contemporary issues. (T_I)
- k - An ability to use the techniques, skills and modern engineering tools necessary for engineering practice. (T_I)

*Notes:
Covered Explicitly (C) - The outcome is implicitly covered
Covered Explicitly (C_E) - The outcome is explicitly covered
Tested Implicitly (T_I) - The outcome is covered and implicitly assessed for by one or more means (assignments, test questions, and laboratory reports)
Tested Implicitly (T_E) - The outcome is explicitly tested for by one or more means, with passing grades in those tests or assignment being a necessary requirement of passing the course


Additional References:
**Descriptions of major assignments and examinations:** A series of homework assignments, two midterm exams, and one comprehensive final exam. All homework assignments must be turned in at the start of the class period in which they are due. Failure to do so will constitute a grade of zero for the homework assignment in question. One week of advanced notice will be provided in scheduling each midterm exam. The final exam will be given according to the university’s published final exams schedule. Unexcused failure to appear for an exam at the scheduled time will constitute a grade of zero in that exam.

**Attendance:** Class attendance and punctuality are expected. (No special accommodations will be made for incomplete or missed assignments and exams due to unexcused absences.) Good attendance and class performance will be considered for additional point to the final grade.

**Grading:** Arithmetic average of all assigned homework (15%), Midterm exams (25% each), and Final exam (35%). Final Grading Scale: A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: 59 or less.

**Make-up Exams:** No make-up exams will be given except for medical or other similar hardships where advanced arrangements are made with the instructor; or in case of non-selective medical emergencies with appropriate physician’s note or documentation. Other than circumstances described above, failure to take the exam at the scheduled time will constitute a grade of zero in the exam.

**Grade Grievances:** Grade grievances will be handled according to the policy described in the College of Engineering portion of the Catalog.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/ses/fao).

**Other Policies:**
Cell phones and laptop computers should be turned off during the class unless advised otherwise.

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the **Americans with Disabilities Act (ADA).** All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

**Academic Integrity:** At UT Arlington, academic dishonesty is completely unacceptable and will not be tolerated in any form, including (but not limited to) "cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the
attempt to commit such acts” (UT System Regents’ Rule 50101, §2.2). Suspected violations of academic integrity standards will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may contact the Maverick Resource Hotline by calling 817-272-6107, sending a message to resources@uta.edu, or visiting www.uta.edu/resources.

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the end of the term. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Librarian to Contact:** Sylvia George-Williams, Science and Technology Library, sylvia@uta.edu, (817)2727519.

**Syllabus Change Policy:** This syllabus is subject to change with advance notice.