Carleton University

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

CIVE 5500 Earth Retaining Structures

Course Description: This course is focused on analysis and design of deep excavations and retaining structures including gravity and cantilever walls, sheet piles, soldier piles, anchored walls and braced excavations. Review of soil mechanics concept and site investigation procedures required for these structures will also be included.

Objectives: To develop understanding of the concepts, theories and procedures of design for different types of retaining structures and shoring systems.

Lectures: Wednesday/Friday ZOOM 11:35-02:25 PM

Reference Texts:

(1) Deep excavation: a practical manual, Puller (2003)
(2) Soils and Foundations, C. Liu & J.B. Evett, Pearson
(3) Soil Mechanics & Foundations, M. Budhu, John Wiley & Sons
(4) Canadian Foundation Engineering Manual, 4th Edition, BiTech Publishers, 2007

Evaluation: The final grade is arrived at as follows:

Project	20%
Midterm examination	30%
Final Examination	50%

Project: A design project will be assigned or critical review of some technical papers will be required.

Course Instructor: Dr. M.T. Rayhani
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Note: This course has timed written assessments, which may consist of tests, midterms and/or final examinations. The Carleton University e-Proctoring system may be used in your assessments, and requires the use of webcams, microphones, and smart phones.

"The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608

or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your ***Letter of Accommodation*** at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (*if applicable*). **Requests made within two weeks will be reviewed on a case-by-case basis.** After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website (www.carleton.ca/pmc) for the deadline to request accommodations for the formally-scheduled exam (*if applicable*). "