

CEE 9517L- Engineered Masonry Design- Summer 2018

COURSE OBJECTIVES

The objective of this course is to enable structural engineers to comprehend the fundamental principles of masonry materials and behavior and apply them in the analysis, design of contemporary masonry structures. The course presents up-to-date information and experiences on masonry materials, testing methods, analysis techniques, and design of reinforced concrete masonry walls.

INSTRUCTOR

Dr. Ahmad A. Hamid,
Professor, Drexel University and Adjunct
Professor, WU E-mail:
ahmadahamid16@gmail.com

CONTACT HOURS

June 18, 2018 – June 25, 2018 (Monday through Friday)
Lecture 9:00am-12:00pm, Location UCC 41
Tutorial: 1:00pm- 5:00pm, Location: SH 3315

COURSE OUTLINE

1- Introduction to contemporary masonry (Chapters1&2)	June 18
2- Building Design (Chapter 3)	June 19
3- Masonry Materials (Chapter 4)	June 20
4- Masonry Assemblages (Chapter 5)	June 21
5- Masonry Beams and Lintels (Chapter 6)	June 22
-----Midterm Exam-----	June 25
6- Flexural Walls (Chapter 7)	June 26
7- Loadbearing Walls Under Axial Load and Bending (Chapter 8)	June 27
8- Shear Walls (Chapter 10)	June 28 &29
-----Final Exam-----	July 4

TEXTBOOK

“Masonry Structures: Behavior and Design”
by Ahmad Hamid, Fourth Edition, The Masonry Society, 2018.

REFERENCES

- “Masonry Structures: Behaviour and Design” by R. Drysdale and A. Hamid, First Canadian Edition, Canada Masonry Design Centre, 2005.
- NCMA TEK Notes on concrete masonry (available on the net).
- BIA TEK Notes on brick masonry (available on the net).
- " Seismic Design of Reinforced Concrete and Masonry Buildings" by T. Paulay and N. Priestley

CODES AND STANDARDS

- . CSA material specifications
- . S304 code “Masonry Construction for Buildings”
- . National Building Code of Canada, 2005
- . TMS 402/602 Code and Specifications, The Masonry Society, 2016

COURSE EVALUATION

- | | |
|--------------------------------------|-----|
| . Attendance and class participation | 5% |
| . Assignments | 20% |
| . Midterm Exam | 25% |
| . Project | 20% |
| . Final Exam | 30% |

Use of English:

In accordance with Senate and Faculty Policy, students may be penalised up to 10% of the marks on all assignments, tests, and examinations for the improper use of English. Additionally, poorly written work with the exception of the final examination may be returned without grading. If resubmission of the work is permitted, it may be graded with marks deducted for poor English and/or late submission.

Scholastic Offences:

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_grad.pdf.

Plagiarism:

University policy states that plagiarism, defined as the “act or an instance of copying or stealing another’s words or ideas and attributing them as one’s own.” (excerpted from Black’s Law Dictionary, West Group, 1999, 7th ed., p. 1170) is a scholastic offence. In submitting any written work as part of the coursework requirements for this course students must ensure that this work is written in their own words. Whenever students take an idea or a passage of text from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism-detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>). A student who is found guilty of plagiarism in respect of any written work submitted as part of the coursework requirements for this course will be given a grade of zero for the submitted work. Repeated acts of plagiarism, either in this course or any other course subsequent to a first offence, will result in the student being given a failing grade for the course in which the subsequent offence occurs, and may also incur further penalties such as requiring the student to withdraw from the program in which they are enrolled in.

Attendance:

Any student who, in the opinion of the instructor, is absent too frequently from class, laboratory, or tutorial periods will be reported to the Dean (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean, the student will be debarred from taking the regular final examination in the course.

Accessibility:

Please contact the course instructor if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

Conduct:

Students are expected to arrive at lectures on time, and to conduct themselves during class in a professional and respectful manner that is not disruptive to others. Late comers may be asked to wait outside the classroom until being invited in by the Instructor. Please turn off your cell phone before coming to a class, tutorial, quiz or exam.

On the premises of the University or at a University-sponsored program, students must abide by the Student Code of Conduct: <http://www.uwo.ca/univsec/board/code.pdf>.

Sickness and Other Problems:

Students should immediately consult with the Instructor or Department Chair if they have any problems that could affect their performance in the course. Where appropriate, the problems should be documented (see attached). The student should seek advice from the Instructor or Department Chair regarding how best to deal with the problem. Failure to notify the Instructor or Department Chair immediately (or as soon as possible thereafter) will have a negative effect on any appeal.

For more information concerning medical accommodations, please see: http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf.

Notice:

Students are responsible for regularly checking their email, and the course OWL site for new notices related to the course.