

INTEGRATED CAPSTONE DESIGN COURSE

CIVIL ENGINEERING 4X06 (Fall2018 and Winter 2019)

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Fall Schedule:

<u>Day</u>	<u>Time</u>		<u>Activity</u>	<u>Room</u>
Mondays	4:30-5:20	(C01)	Project Groups Tutorial	BSB B136
Wednesdays	2:30-3:20	(C01)	Municipal Eng Info Transfer	BSB B136
Wednesdays	3:30-5:20	(L01)	Labs	BSB B136
Thursdays	4:30-5:20	(C01)	Structural Eng Info Transfer	BSB B136

Winter Schedule:

All weekly class periods are generally set aside for design studio work. Certain periods will have regular TA attendance for consultation. Final reports will be due on Monday March 4th, 2019 and poster presentations will occur later in March.

Text: Materials on Avenue
Supplementary Materials on Reserve in Thode Library

Course Requirements:

Confidential Peer Evaluations	10%
Proposal (report and meeting)	10%
Chapter Hand-ins / Interim Presentations/Survey Completions	20% * (individual)
Final Poster Presentation	10%
Final Design Project Report	50% * (group and individual)

(Percentage to letter grade conversion scale is the same as that used by the Registrar's Office)

Late projects will be subject to a 10% per day penalty.

***Individual and Group Marks**

In order to ascertain that each member of a group is contributing positively to the project, the chapter hand-ins and final report will largely be individual marks. In the proposal each team must identify what chapters their group members are responsible for, noting that any number of group members may be assigned to each technical chapter. Each chapter requires a technical lead (or there can be two) who is responsible for the chapter and will receive twice the weighting as group members who contribute to the chapter but are not the lead. The members assigned to each chapter will receive the same mark for that chapter. The chapters will have two marks out of 5, the first is for technical content and the second is for presentation and writing quality. For the final report, of the 40%, 10% of the grade will be a group mark which reflects the overall quality of the report and 30% will be individual marks based upon the chapters that each student is responsible for. During the course groups may resubmit up to four chapters for re-marking, however the entire group must agree that a chapter can be resubmitted.

Chapter Due Dates

Chapters are to be submitted on Mondays and there will generally be a one-week turnaround for marking and feedback. Groups are responsible for picking up their marked chapters during the Monday group tutorial slot. The last day to submit chapters for grading and feedback is Monday February 11th.

Groups

All students will form self-selected groups of 5-6 people. Proposals are due on the 17th of September and meetings for each group will be set to take place between the groups and the instructors/starting on the 19th of September. All groups will be formed by September 10th, anybody not in a group will be assigned to one. **If a student has not contacted their group by September 28th 2018, will be required to withdraw from this course.**

Course Description:

This course is the integrated capstone design course for students in civil engineering, and places considerable emphasis on the fundamentals of design that minimize environmental impact and maximize the resiliency and vibrancy of built communities and their built infrastructure. The course project will focus on a real-world design application from a broad perspective, where a number of civil engineering and related sub-disciplines come into play.

Learning Outcomes

Upon completion of the course, students will be able to:

- 1) Understand how to apply their undergraduate knowledge to a contemporary design,
- 2) Design an engineering solution to a challenging contemporary problem, within realistic constraints and utilizing appropriate standards.
- 3) Use project management and teamwork skills to deliver a solution within time constraints.
- 4) Deliver a professional presentation appropriate to a broad audience.
- 5) Demonstrate effective written technical communication skills through final project reports.

Anti-Discrimination

The Faculty of Engineering is concerned with ensuring an environment that is free of all discrimination. If there is a problem, individuals are reminded that they should contact the Department Chair, the Sexual Harassment Officer or the Human Rights Consultant, as soon as possible.

Academic Integrity

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at www.mcmaster.ca/academicintegrity. The following illustrates only three forms of academic dishonesty:

- Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
- Improper collaboration in group work.
- Copying or using unauthorized aids in tests and examinations.

Academic Accommodation of Students with Disabilities Policy

Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University’s Academic Accommodation of Students with Disabilities policy.

Requests For Relief For Missed Academic Term Work

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar “Requests for Relief for Missed Academic Term Work”.

Academic Accommodation For Religious, Indigenous Or Spiritual Observances (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students requiring a RISO accommodation should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.