This course is primarily directed at students considering future graduate studies. The objective of the course is to provide the student with an opportunity to select and investigate an engineering problem in some depth under the individual supervision of a faculty member. The student will carry out analytical and/or experimental work and prepare a progress report and an engineering thesis. Each student must deliver a public lecture.

**Prerequisites:**
Completion of the third year of the Civil Engineering program with a grade average of above 75%. Exceptions could be made with permission from the course coordinator.

**Anti-requisites:**
CBE 415, ECE 416, MME 419, MME 499, SE 450, No repeat of CEE 4440 permitted.

**Note:** It is students’ responsibility to ensure that all Prerequisite conditions are met or that special permission to waive these requirements has been granted by the Faculty. Unless the student has either the requisites for this course or written special permission from the Associate Dean’s Office to enrol in it, he/she will be removed from this course and it will be deleted from the student’s record. It is also the student’s responsibility to ensure that he/she has not taken a course listed as an Anti-requisite. The student may not be given credit if he/she violates the anti-requisite condition. The decisions regarding either prerequisite or anti-requisite may not be appealed. The student will receive no adjustment to tuition fees in the event that he/she is dropped from a course for failing to meet prerequisite and anti-requisite conditions.

**Faculty Advisor:**
It is the student's responsibility to ensure that he/she has a Faculty Advisor(s). At least one Faculty Advisor must be a faculty member in the Dept. of Civil and Environmental Engineering.

**Contact Hours:**
By arrangement with the Faculty Advisor. All students registered in this course are invited to attend Civil Seminars, which are held on Tuesdays, 1:30 – 2:30 PM during Fall and Winter semesters, as part of learning experience for carrying out research in the broad field of civil and environmental engineering.

**Coordinator:**
Dr. Tim Newson, SEB3084, tnewson2@uwo.ca
Undergraduate Affairs Assistant, SEB3005

**Text:** N/A.

**Laboratory:** 6 hours of personal work per week

**Units:** SI
General Learning Objectives

<table>
<thead>
<tr>
<th>Knowledge Base</th>
<th>Individual Work</th>
<th>Ethics and Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Analysis</td>
<td>Team Work</td>
<td>Economics and Project Management</td>
</tr>
<tr>
<td>Investigation</td>
<td>Communication</td>
<td>Life-Long Learning</td>
</tr>
<tr>
<td>Design</td>
<td>Professionalism</td>
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<tr>
<td>Engineering Tools</td>
<td>Impact on Society</td>
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</tbody>
</table>

**Evaluation:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal</td>
<td>5%</td>
</tr>
<tr>
<td>Progress report</td>
<td>20%</td>
</tr>
<tr>
<td>Abstract and Oral presentation</td>
<td>25%</td>
</tr>
<tr>
<td>Final report</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

In addition to these, students are required to attend at least 70% of the graduate seminars.

The winner who receives the highest grade will receive a travel award up to $1,000 from the Department of Civil and Environmental Engineering to attend a technical conference.

**Use of English**

In accordance with Senate and Faculty Policy, students may be penalized 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 final examinations 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.

**Cheating**

University policy states that cheating, including plagiarism, is a scholastic offence. The commission of a scholastic offence is attended by academic penalties, which might include expulsion from the program. If you are caught cheating, there will be no second warning.

**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.

**Consultation**
Students are encouraged to discuss problems with their Faculty Advisor(s) and/or Course Coordinator. Faculty Advisor(s) will have weekly office hours scheduled for CEE440.

**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.

**Notice:**
Students are responsible for regularly checking their e-mail and notices posted outside the Civil Departmental Office.

**Course Breakdown:**
Engineering Science = 60%; 55.4 AU’s
Complementary Studies = 40%; 37 AU’s

TAN
August 2017
INSTRUCTIONS FOR STUDENTS UNABLE TO WRITE TESTS OR EXAMINATIONS OR SUBMIT ASSIGNMENTS AS SCHEDULED

IF, ON MEDICAL OR COMPASSIONATE GROUNDS, YOU ARE UNABLE TO WRITE TERM TESTS OR FINAL EXAMINATIONS OR COMPLETE COURSE WORK BY THE DUE DATE, YOU SHOULD FOLLOW THE INSTRUCTIONS LISTED BELOW. YOU SHOULD UNDERSTAND THAT ACADEMIC RELIEF WILL NOT BE GRANTED AUTOMATICALLY ON REQUEST. YOU MUST DEMONSTRATE TO YOUR DEPARTMENT (OR THE UNDERGRADUATE SERVICES OFFICE) THAT THERE ARE COMPELLING MEDICAL OR COMPASSIONATE GROUNDS THAT CAN BE DOCUMENTED BEFORE ACADEMIC RELIEF WILL BE CONSIDERED. DIFFERENT REGULATIONS APPLY TO TERM TESTS, FINAL EXAMINATIONS AND LATE ASSIGNMENTS. PLEASE READ THE INSTRUCTIONS CAREFULLY. (SEE THE 2017 UWO ACADEMIC CALENDAR).

A. GENERAL REGULATIONS & PROCEDURES

1. All first year students will report to the Undergraduate Services Office, SEB 2097, for all instances.

2. If you are an upper year student and you are missing a test/assignment/lab or exam that is worth MORE THAN 10% of your final grade, you will report to the Undergraduate Services Office, SEB 2097. Otherwise, you will report to your department office to request relief.

3. Check the course outline to see if the instructor has a policy for missed tests, examinations, late assignments or attendance.

4. Documentation must be provided as soon as possible. If no one is available in your Department office or the Undergraduate Services Office, leave a message clearly stating your name & student number and reason for your call. The department telephone numbers are given at the end of these instructions.

5. If you decide to write a test or an examination you should be prepared to accept the mark you earn. Rewriting tests or examinations or having the value of a test or examination reweighted on a retroactive basis is not permitted.

B. TERM TESTS

1. If you are in first year and you are unable to write a term test, contact the Undergraduate Services Office, SEB 2097 PRIOR to the scheduled date of the test.

2. If you are an upper year student and you are unable to write a term test, inform your instructor PRIOR to the scheduled date of the test. If the instructor is not available, leave a message for him/her at the department office. If the test is worth MORE THAN 10% of your final grade you will report to the Undergraduate Services Office, SEB 2097 to request relief. Otherwise, you will report to your department office to request relief.

3. Be prepared to provide supporting documentation to the Department Chair and/or the Undergraduate Services Office (see next page for information on documentation).

4. Discuss with the instructor if and when the test can be rescheduled. N.B. The approval of the Chair or the Undergraduate Services Office is required when rescheduling term tests.

C. FINAL EXAMINATIONS

1. If you are unable to write a final examination, contact the Undergraduate Services Office PRIOR TO THE SCHEDULED EXAMINATION TIME to request permission to write a Special Final Examination. If no one is available in the Undergraduate Services Office, leave a message clearly stating your name & student number.

2. Be prepared to provide the Undergraduate Services Office with supporting documentation (see next page for information on documentation) the next day, or as soon as possible (in cases where students are hospitalized). The following circumstances are not considered grounds for missing a final examination or requesting special examinations: common cold, sleeping in, misreading timetable and travel arrangements.

3. In order to receive permission to write a Special Examination, you must obtain the approval of the Chair of the Department and the Associate Dean and in order to apply you must sign a "Recommendation for a Special Examination Form" available in the Undergraduate Services Office. The Undergraduate Services Office will then notify the course instructor(s) and reschedule the examination on your behalf.

N.B. It is the student's responsibility to check the date, time and location of the Special Examination.

D. LATE ASSIGNMENTS

1. Advise the instructor if you are having problems completing the assignment on time (prior to the due date of the assignment).

2. Be prepared to provide documentation if requested by the instructor (see reverse side for information on documentation).

3. If you are granted an extension, establish a due date. The approval of the Chair of your Department (or the Associate Dean if you are in first year) is not required if assignments will be completed prior to the last day of classes.

4. i) Extensions beyond the end of classes must have the consent of the instructor, the department Chair and the Associate Dean. Documentation is mandatory.

ii) A Recommendation of Incomplete Form must be filled out indicating the work to be completed and the date by which it is due. This form must be signed by the student, the instructor, the department Chair and the Associate Dean.
F. **EXTENDED ABSENCES**

If you are absent more than one week or if you get too far behind to catch up, you should consider reducing your workload by dropping one or more courses. (Note drop deadlines listed below). You may want to seek advice from the academic counsellor in your Department or Ms. Karen Murray in the Undergraduate Services Office, if you are in first year.

G. **DOCUMENTATION**

If you consulted an off-campus doctor or Student Health Services regarding your illness or personal problem, **you must provide the doctor with a Student Medical Certificate** to complete at the time of your visit and then bring it to the Department (or the Undergraduate Services Office). **This note must contain the following information:** severity of illness, effect on academic studies and duration of absence. Regular doctor’s notes will not be accepted; only the Student Medical Certificate will be accepted.

**In Case of Serious Illness of a Family Member:** Provide a Student Medical Certificate to your family member's physician to complete and bring it to the Department (or the Undergraduate Services Office if you are in first year).

**In Case of a Death:** Obtain a copy of the death certificate or the notice provided by the funeral director's office. You must include your relationship to the deceased and bring it to the Department (or the Undergraduate Services Office if you are in first year).

**For Other Extemating Circumstances:** If you are not sure what documentation to provide, ask the Departmental Office (or the Undergraduate Services Office if you are in first year) for direction.

**Note:** Forged notes and certificates will be dealt with severely. To submit a forged document is a scholastic offence (see below).

H. **ACADEMIC CONCERNS**

1. You need to know if your instructors have a policy on late penalties, missed tests, etc. This information may be included on the course outlines. If not, ask your instructor(s).

2. **You should also be aware of attendance requirements in some courses. You can be debarred from writing the final examination if your attendance is not satisfactory.**

3. If you are in academic difficulty, check out the minimum requirements for progression in the calendar. If in doubt, see your academic counsellor.

**Calendar References:** Check these regulations in your 2017 Western Academic Calendar available at [www.westerncalendar.uwo.ca](http://www.westerncalendar.uwo.ca).

**Absences Due to Illness:** [http://westerncalendar.uwo.ca/2017/pg117.html](http://westerncalendar.uwo.ca/2017/pg117.html)

**Academic Accommodations for Students with Disabilities:** [http://westerncalendar.uwo.ca/2017/pg118.html](http://westerncalendar.uwo.ca/2017/pg118.html)

**Academic Accommodations for Religious or Holy Days:** [http://westerncalendar.uwo.ca/2017/pg115.html](http://westerncalendar.uwo.ca/2017/pg115.html)

**Course Withdrawals:** [http://westerncalendar.uwo.ca/2017/pg119.html](http://westerncalendar.uwo.ca/2017/pg119.html)

**Examinations:** [http://westerncalendar.uwo.ca/2017/pg129.html](http://westerncalendar.uwo.ca/2017/pg129.html)

**Scheduling of Term Assignments:** [http://westerncalendar.uwo.ca/2017/pg135.html](http://westerncalendar.uwo.ca/2017/pg135.html)

**Scholastic Offences:** [http://www.westerncalendar.uwo.ca/2017/pg111.html](http://www.westerncalendar.uwo.ca/2017/pg111.html)

**Student Medical Certificate:** [http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

**Engineering Academic Regulations:** [http://www.westerncalendar.uwo.ca/2017/pg1442.html](http://www.westerncalendar.uwo.ca/2017/pg1442.html)

**Note:** These instructions apply to all students registered in the Faculty of Engineering regardless of whether the courses are offered by the Faculty of Engineering or other faculties in the University.

**Drop Deadlines:**

- First term half course (i.e. “A” or “F”): November 5, 2017
- Full courses and full-year half courses (i.e. “E”, “Y” or no suffix): November 30, 2017
- Second term half or second term full course (i.e. “B” or “G”): March 7, 2017

**Contact Information:**

<table>
<thead>
<tr>
<th>Department</th>
<th>Office</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Services Office</td>
<td>SEB 2097</td>
<td>(519) 661-2130</td>
<td><a href="mailto:engugrad@uwo.ca">engugrad@uwo.ca</a></td>
</tr>
<tr>
<td>Dept. of Chemical and Biochemical Engineering &amp; Green Process Engineering</td>
<td>TEB 477</td>
<td>(519) 661-2131</td>
<td><a href="mailto:cbeugrad@uwo.ca">cbeugrad@uwo.ca</a></td>
</tr>
<tr>
<td>Dept. of Civil and Environmental Engineering</td>
<td>SEB 3005</td>
<td>(519) 661-2139</td>
<td><a href="mailto:civil@uwo.ca">civil@uwo.ca</a></td>
</tr>
<tr>
<td>Dept. of Electrical and Computer Engineering, Software Engineering &amp; Mechatronics Engineering</td>
<td>TEB 279</td>
<td>(519) 661-3758</td>
<td><a href="mailto:eceugrad@uwo.ca">eceugrad@uwo.ca</a></td>
</tr>
<tr>
<td>Dept. of Mechanical and Materials Engineering</td>
<td>SEB 3002</td>
<td>(519) 661-4122</td>
<td><a href="mailto:mmeundergraduate@uwo.ca">mmeundergraduate@uwo.ca</a></td>
</tr>
</tbody>
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Revised 07/07/17