
Description:

This course introduces students to the planning, controlling and management of civil engineering projects. The course covers basic elements of Construction Project Management - the science and engineering of managing and optimizing space, time and resources on construction projects. Through studying and analyzing actual case studies students will be exposed to the complex and multidisciplinary nature of the decisions faced by civil engineers on a daily basis in real world applications.

The general objectives are for the student to become able to:

- Apply knowledge of planning, executing and controlling to the management of construction projects;
- Utilize professional planning and scheduling software to create, schedule and effectively optimize a project activities and resources;
- Identify, formulate, analyse and plan project main elements, specifically time, cost and quality while working individually or functioning on a team;
- Develop an awareness of construction project management from actual life on-site situations;
- Examine, in some depth, the specific management processes applied in utilizing construction resources on the project.
- Recognize the need for life-long learning to keep abreast of new planning and construction methods, enhance one’s abilities as a construction project manager, and maintain one’s professional competence.

Course Content: Shown as lessons 1 through 12 including learning outcomes

Lesson 1 – Introduction to Project Management
Lesson 2 - Introduction to Construction and Estimating
Lesson 3 - Bidding Law and Bonds
Lesson 4 - Construction Contracts and Delivery Methods
Lesson 5 – Basic Systems in Buildings
Lesson 6 - Site Logistics & Lab #3 Overview
Lesson 7 - Project Planning and Scheduling & Lab #4 Overview
Lesson 8 - Project Cost Management (Cash Flow) & Lab #5 Overview
Lesson 9 - Term Project Overview
Lesson 10 – LEED In Construction
Lesson 11 - LEAN Construction Management

PMI and PMBoK are marks of the Project Management Institute Inc.
## Tentative Class Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, Sep 9, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Sep 16, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Sep 23, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Sep 30, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Oct 7, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Oct 21, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Oct 28, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Nov 11, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Nov 18, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Nov 25, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Monday, Dec 2, 2019</td>
<td>7:30 pm – 9:30 pm</td>
<td>SEB 2100</td>
<td>2</td>
</tr>
<tr>
<td>Final Exam</td>
<td>TBD</td>
<td>TBD</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Teaching Hours not including laboratories</strong></td>
<td></td>
<td></td>
<td>22</td>
</tr>
</tbody>
</table>

## Tentative Laboratory Schedule

<table>
<thead>
<tr>
<th>Laboratory</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 (Marked)</td>
<td>Sep 25th, 2019</td>
<td>7:00 pm – 10:00 pm</td>
<td>ACEB-2415 ACEB-1400</td>
<td>3</td>
</tr>
<tr>
<td>#2 (Marked)</td>
<td>Oct 2nd, 2019</td>
<td>7:00 pm – 10:00 pm</td>
<td>ACEB-2415 ACEB-1400</td>
<td>3</td>
</tr>
<tr>
<td>#3 (Marked)</td>
<td>Oct 23rd, 2019</td>
<td>7:00 pm – 10:00 pm</td>
<td>ACEB-2415 ACEB-1400</td>
<td>3</td>
</tr>
<tr>
<td>#4 (Marked)</td>
<td>Oct 30th, 2019</td>
<td>7:00 pm – 10:00 pm</td>
<td>ACEB-2415 ACEB-1400</td>
<td>3</td>
</tr>
<tr>
<td>#5 (Marked)</td>
<td>Nov 13th, 2019</td>
<td>7:00 pm – 10:00 pm</td>
<td>ACEB-2415 ACEB-1400</td>
<td>3</td>
</tr>
<tr>
<td>#6 – <strong>Term Project Site Tour</strong></td>
<td>Nov 20th, 2019</td>
<td>TBD</td>
<td>TBD</td>
<td>3</td>
</tr>
<tr>
<td>#7 (Project Consultation)</td>
<td>Nov 27th, 2019</td>
<td>7:00 pm – 10:00 pm</td>
<td>ACEB-2415 ACEB-1400</td>
<td>3</td>
</tr>
<tr>
<td><strong>Term Project Submission</strong></td>
<td>Dec 4th, 2019</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Personal Protective Equipment (PPE):**

- Construction Hard Hat
- Safety Boots (CSA standard)
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Evaluation:

Laboratories (5): 20%
- Lab 1: 4%
- Lab 2: 4%
- Lab 3: 4%
- Lab 4: 4%
- Lab 5: 4%

Term Project 40%
Final Examination 40%
Total 100%

Notes on Projects and Laboratories (papers and reports):
- Must be academic in style and content
- Must have a clear focus
- Must present ideas in a logical and well thought-out flow
- Arguments, analysis and conclusions must be based on clearly identified research and sources
- Must be in paragraph format
- Must be double-spaced, and typewritten (applies to projects only, not laboratory work)
- Must cite all references from other sources (applies to projects only, not laboratory work)

Grading:

A+ 90-100 One could scarcely expect better from a student at this level
A 80-89 Superior work which is clearly above average
B 70-79 Good work, meeting all requirements, and eminently satisfactory
C 60-69 Competent work, meeting requirements
D 50-59 Fair work, minimally acceptable
F below 50 Fail

Policy on Cheating and Academic Misconduct:

Academic honesty is a cornerstone of conduct at The University of Western Ontario. We cannot have freedom of expression without integrity. Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offences; please refer to the section on “Scholastic Offences” in the current University Academic Calendar, or on the web at http://www.westerncalendar.uwo.ca. Such offences include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course any academic work for which credit has previously been obtained or is being sought.
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in another course in this University or elsewhere (without the knowledge and approval of the instructor to whom the work is submitted). If you are caught cheating there will be no second warning. Academic penalties will be applied up to and possibly including expulsion from the program.

How often will the instructor communicate with me?

The instructor will be available to meet every evening for ½-1 hour after each lecture either in the classroom or in assigned office space. Any student may raise any issue at this time without the need for an appointment. Students will note the published schedule included herein. Supplemental arranged meetings are possible, but may require several days advance co-ordination.

The instructor will also be available via e-mail. Their addresses can be found on the course web site under the messages tab. The instructor will check e-mail a minimum of 3 times per week and the students should as well. E-mail will be checked at minimum once per weekend, as well as once early in the work week, and once late in the work week. All e-mails will receive a response. For detailed comprehensive responses, bring forward questions that affect the entire group. These are the preferred type of questions to be brought forward. Detailed questions relating to your work specifically will receive individually tailored responses.

Please feel free to initiate supplementary Owl Sakai chats with the instructor by sending an e-mail or arranging a time.

The students will not typically have text or telephone access to the instructor although this can be arranged if the necessity arises.

How do I hand in Laboratories?

All laboratory work will be submitted electronically through Owl Sakai using the assignment tab in the course area. Failure to meet deadlines without the instructor’s written permission will result in a reduction of marks. Labs received after the due date will be reduced 25% per day (including weekends). Except in exceptional circumstances, approved by the instructor before the due date, Labs more than 3 days late will not be accepted and a mark of 0% will be assigned.

The 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. In addition, poor 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 late submission.
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.

NEW: Requests for Academic Consideration using the Self-Reported Absence Form

If you experience an unexpected illness or injury or an extenuating circumstance (48 hours or less) that is sufficiently severe to temporarily render you unable to meet academic requirements (e.g., attending lectures or labs, writing tests or midterm exams, completing and submitting assignments, participating in presentations) you should self-declare using the online Self-Reported Absence portal. This option should be used in situations where you expect to resume academic responsibilities within 48 hours or less.

Each student will be allowed a maximum of two self-reported absences between September and April and one self-reported absence between May and August. Self-reporting may not be used for final exams or assessments (e.g. midterm exams, tests, reports, presentations, or essays) worth more than 30% of any given course.

For full instructions about the Self-Reporting System refer to the Academic Calendar link here.

A. GENERAL REGULATIONS & PROCEDURES (other than self-reported absences)

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 examination that is worth LESS THAN 10% of your mark, you should report to your department office to request relief. If your course work is worth MORE THAN 10% of your final grade, you will report to the Undergraduate Services Office, SEB 2097.

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/MIDTERM TESTS (other than self-reported absences)

1. If you are in first year and you are unable to write a midterm/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 midterm/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 LESS THAN 10% of your mark, you should report to your department office to request relief. 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.

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 midterm/term tests.
C. **FINAL EXAMINATIONS (cannot be self-reported)**

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, headache, 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.

    **PLEASE NOTE:** 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 Assistant Dean, First Year Studies, 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, Undergraduate Studies. 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, Undergraduate Studies.

E. **SHORT ABSENCES**

If you miss a class due to a minor illness or other problem, check your course outlines for information regarding attendance requirements and make sure you are not missing a test, laboratory or assignment. Cover any readings and arrange to borrow notes from a classmate.

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 are strongly encouraged to seek advice from your Academic Counsellor in the Undergraduate Services Office.

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 Extenuating 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 2019 Western Academic Calendar available at www.westerncalendar.uwo.ca.

Self-Reporting Absences
Absences Due to Illness
Academic Accommodations for Students with Disabilities
Academic Accommodations for Religious or Holy Days
Course Withdrawals
Examinations
Scheduling of Term Assignments
Scholastic Offences
Student Medical Certificate
Engineering Academic Regulations

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.

Add Deadlines:  
First term half course (i.e. “A” or “F”)  
Full courses and full-year half course (i.e. “E”, “Y” or no suffix)  
Second term half course (i.e. “B” or “G”)  

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

Drop Deadlines:  
First term half course (i.e. “A” or “F”)  
Full courses and full-year half courses (i.e. “E”, “Y” or no suffix)  
Second term half or second term full course (i.e. “B” or “G”)  

Contact Information:

Undergraduate Services Office: 
SEB 2097  Phone: 519-661-2130  E-mail: engugrad@uwo.ca
Chemical & Green Process Engineering: 
TEB 477  Phone: 519-661-2131  E-mail: cbeugrad@uwo.ca
Civil Engineering: 
SEB 3005  Phone: 519-661-2139  E-mail: civil@uwo.ca
Computer, Electrical, Mechatronic Systems & Software Engineering 
TEB 279  Phone: 519-661-3758  E-mail: ceeugrad@uwo.ca
Integrated Engineering 
ACEB 2410  Phone: 519-661-6725  E-mail: engceli@uwo.ca
Mechanical Engineering: 
SEB 3002  Phone: 519-661-4122  E-mail: mmeundergraduate@uwo.ca

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Attendance

Any student, who in the opinion of the instructor, is absent too frequently from class or laboratory periods in any course, 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 examination in the course.

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.

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. The student should seek advice from the instructor or Department Chair immediately 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 affect on any appeal.

Owl Sakai Help - Who to contact

1) Application Problems
If you have problems with an application on this system please call the Help Desk at (519) 661-2111 extension 83800.

2) ITS Help Page:  Owl Help and Support

Confidentiality and University Indemnification

The University of Western Ontario, Kevin McGuire & Salem El Harakeh (your instructors), and your classmates take no responsibility for the confidentiality of information that you present in any educational context, such as online, in-class or in your submissions or postings.

It is up to you, the student, to ensure that you are not breaching any confidentiality situations with any information you present including those which might pertain to ongoing research of which you are a part of or have been a part of in the past.

Teaching Assistants

Christopher Howlett       chowlet5@uwo.ca
Emilio Shipeng Hong      ehong27@uwo.ca
Neda Aslankoohi          naslanko@uwo.ca

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