Course Description:
Through this course it is anticipated that you will cover the fundamentals and principles related to project and construction management. Whether you are from Civil Engineering or Business Disciplines you should be able to gain from this course a managerial aspect in the construction industry. To the greatest extent, the course will satisfy the needs for students coming from both backgrounds. The topics covered in this course are outlined in the following page. By the end of this course students should be able to:

- Understand the significance of construction management and know different construction management principles and issues.
- Be familiar with the preparing the Bid Package and Construction Contracts.
- Know how to plan and schedule projects using the PERT technique.
- Understand financial aspects of construction management.

Text:
- Third edition is on reserve in the library for a four hour loan period.

Course Instructor:
Omar Abdelalim
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Class Hours:
Lectures: Tuesdays, 6:05-8:55 p.m. Minto Center 5050
Tutorials: Fridays: 2:35 – 5:25pm, Minto Center 5050 (Even weeks)

Course Outline:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction: Construction Industry, Construction Industry Cost Effectiveness (CICE) Study, Management Levels of Construction</td>
<td>1</td>
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<tr>
<td>2-3</td>
<td>Bids and Contracts: Preparing the Bid Package, Issues During Construction Phase, Construction Contracts</td>
<td>2-4</td>
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<tr>
<td>4-6</td>
<td>Planning and Scheduling: Project Breakdown, Networks, Precedence Notation, Program Evaluation and Review Technique (PERT)</td>
<td>7-9</td>
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<tr>
<td>8</td>
<td>Financial Management of Construction: The Mathematics of Money, Project Cash Flow, Project Funding</td>
<td>10-12</td>
</tr>
<tr>
<td>9</td>
<td>Equipment Ownership and Productivity: Owning and Operating Cost, Equipment Depreciation, Equipment Cycle Time</td>
<td>13-14</td>
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</tbody>
</table>
Construction Labour: Labour wages, Employment Insurance 15

Estimating Process: Types of Estimates, Methods of Detailed Cost Determination 16

Cost Control: Cost Accounts, Project Indirect Costs 17

Materials Management: Management Process, Approval Process, Fabrication and Delivery, Installation 18

Safety: Need for Safe Practice, Economic Costs and Benefits, Safety Program 19

Marking Scheme:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
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<tbody>
<tr>
<td>Term Presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Assignments</td>
<td>15%</td>
</tr>
<tr>
<td>Midterm</td>
<td>25%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
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Lectures:

You are responsible for downloading lectures and assignments from CU learn. All announcements will also be posted on CU learn.

Assignments:

There will be 4-5 assignments during the term. Please ensure that assignments are handed tidy, organized, and presented well. Marks will be deducted for untidy and poorly organized assignments. Ensure that your name, student number, and sheet number are written on the first page of the assignment. Assignments are due two weeks after it is assigned in the beginning of the PA session. Due dates will be strict. Students who miss an assignment for a legitimate reason must report their reasons as soon as possible.

Exams:

No makeup midterm examination will be offered. Students who miss the examination for a legitimate reason will have the weight of their final exam as 75% of the total course grade. The final examination is for evaluation purposes only and will not be returned to the student. A minimum of 30% (15 out of 50) in the final is required to pass the course.

Additional Notes:

1. The instructor may alter the course outline and/or the marking scheme depending on the class performance.
2. Students who perform very poorly during the term (term work less than 30% or 15 out of 50) will be assigned the grade FND (Failure – No Deferred).
3. Students are reminded that plagiarism is an instructional offence as defined in Section 14 of the current undergraduate calendar. All occurrences, including, but not limited to, homework assignments will be dealt with seriously, and suitable penalties will be awarded.
4. Students with disabilities requiring academic accommodations in this course are encouraged to contact a coordinator at the Paul Mento Centre for Students with Disabilities to complete the
necessary letters of accommodation. After registering with the PMC, make an appointment to meet and discuss your needs with the instructor at least two weeks prior to the first in-class test. This is necessary in order to ensure sufficient time to make the necessary arrangements.

5. Students requesting academic accommodation on the basis of religious obligation should make a formal, written request to their instructors for alternate dates and/or means of satisfying academic requirements. Such requests should be made during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist, but no later than two weeks before the compulsory event. Accommodation is to be worked out directly and on an individual basis between the student and the instructor(s) involved. Instructors will make accommodations in a way that avoids academic disadvantage to the student. Students or instructors who have questions or want to confirm accommodation eligibility of a religious event or practice may refer to the Equity Services website for a list of holy days and Carleton's Academic Accommodation policies, or may contact an Equity Services Advisor in the Equity Services Department for assistance.

6. Pregnant students requiring academic accommodations are encouraged to contact an Equity Advisor in Equity Services to complete a letter of accommodation. The student must then make an appointment to discuss his or her needs with the instructor at least two weeks prior to the first academic event in which it is anticipated the accommodation will be required.