

Carleton University Department of Civil and Environmental Engineering  
**CIVE 4400A: CONSTRUCTION/PROJECT MANAGEMENT**  
Course Syllabus – Fall 2020

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#### COURSE INSTRUCTOR

Ahmed Hassan  
Department of Civil and Env. Engineering  
Email: ahmed.hassan@carleton.ca  
Office: ME (Mackenzie) 3440  
Office Hours: Tuesday 6:00 to 9:00 PM EST  
(During lecture time) or by appointment

#### COURSE SCHEDULE

Lectures: Tuesday 6:00 to 9:00 PM EST  
Tutorials: EVEN WEEKS ONLY (not used)  
Thursday 6:00 to 9:00 PM EST

#### COURSE WEBSITE AND COMMUNICATION

All course information and online quizzes will be available through CuLearn. All students are responsible for ensuring that they are correctly registered through CuLearn and that they are receiving messages properly through their official university email address. Students are responsible for checking the CuLearn course management site and their official email account frequently.

#### COURSE DESCRIPTION AND OBJECTIVES

*Calendar Description:* Systems approach to project planning and control. Analysis of alternative network planning methods: CPM, precedence and PERT; planning procedure; computer techniques and estimating; physical, economic and financial feasibility; implementation feedback and control; case studies.

By the end of the course, successful students will be able to:

- Differentiate between the different construction project participants and identify their different but interlinked roles
- Identify the different project delivery methods and compare between them based on their benefits and drawbacks
- Break down the various management steps of a construction project from conception to project delivery
- Describe the project estimation, planning and schedule methods and predict the critical path in a project schedule
- Demonstrate an understanding of project cost, time and quality control and feedback

#### COURSE DELIVERY

This course will have a blended synchronous/asynchronous delivery method. Lecture videos will be posted weekly every Tuesday morning. The videos will be segmented for ease of viewing, to make it easy to refer to them and take notes. Posting videos allows the students to view the lecture at their own pace, at whichever time is most convenient to them, which is especially important in online modes of delivery where students are not guaranteed access to internet during a specific allotted time. It also allows for a clear uninterrupted content delivery with no disruptions due to bad internet connection or faulty hardware. To supplement the video lecture content, the allotted lecture time (6:00 to 9:00 pm EST on Tuesday) will be used as open office hours. This will be the synchronous component in which I get to interact with you directly online using big

blue button (on CuLearn). I will start off with addressing common errors that I noticed in the lecture quizzes and assignments, followed by segments of a case study of the worldwide plaza construction project. The floor will then be open to any and all questions which were not addressed fully in the lectures. In some weeks, I will be inviting industry professionals to deliver guest lectures regarding topics related to project management in the construction industry. Content from the guest lectures can be included in assignments and the final exam. The attendance for office hours, case studies and guest lectures is not mandatory but an extra 4% will be granted for students who attend all guest lectures and case studies. The tutorial time is assigned in the calendar but will not be used.

## TEXTBOOK

There is no mandatory textbook needed for this course, however the following is a list of textbooks which are recommended:

- Construction Management, by *Daniel W. Halpin and Bolivar A. Senior*
- Construction planning and scheduling, by *Jimmie W. Hinze*
- Construction Project Management, by *Frederick Gould and Nancy Joyce*
- Construction Project Administration, by *Edward R. Fisk and Wayne Reynolds*

## COURSE OUTLINE (SUBJECT TO CHANGE)

WEEK		DATE	TOPIC
1	Lect. #1	Sep. 15	Construction Industry
2	Lect. #2	Sep. 22	Project Participants
3	Lect. #3	Sep. 29	Organizing and leading construction projects
4	Lect. #4	Oct. 6	Project Delivery Method
5	Lect. #5	Oct. 13	Project Chronology
6	Lect. #6	Oct. 20	Construction services during design
FALL BREAK OCTOBER 26 TO 30			
7	Lect. #7	Nov. 3	Bidding and Procurement
8	Lect. #8	Nov. 10	Construction and closeout
9	Lect. #9	Nov. 17	Estimating project cost
10	Lect. #10	Nov. 24	Project planning and scheduling
11	Lect. #11	Dec. 1	Controlling project cost, time and quality
12	Lect. #12	Dec. 8	Project Administration

## COURSE WORK AND ASSESSMENT

**Lecture Quizzes** ..... 10%  
**Assignments** ..... 40% (8% each)  
**Final Exam**..... 50%

### *Lecture Quizzes*

Each week, a collection of lecture videos will be posted online. A lecture quiz will be used to assess the level of understanding attained from watching the lecture videos. The quizzes have two main purposes: a) ensure an adequate level of understanding is attained from watching the videos, and b) they act as a form of formative assessment that allows me to address common mistakes and questions. Therefore, it is imperative for students to attempt the quizzes on their own in order for me to be able to adequately prepare and address issues of concern during the lecture time. Lecture quizzes will be available for 1

week after posting the lecture videos. Lecture videos will be posted every Tuesday morning, with the quiz closing on the following **Monday at 11:59pm** (typically). The quizzes will be a combination of multiple choice and short answer questions. With a question asking for feedback regarding the video content. The feedback question will directly affect the way I respond to how I can better address your needs during lecture times and in subsequent lecture videos.

To avoid the need for extensive accommodations for sickness or other obligations, the lecture quiz with the lowest marks will be dropped from the final mark. Any additional accommodations require *exceptional* circumstances and supporting documentation.

### *Assignments*

There will be a total of 5 assignments. Submission of the assignment will be done through a submission form on CuLearn.

**Any late assignments will be deducted 25% (even if late by one minute) and will receive a grade of zero if late by 24 hours or more.**

### *Final Exam*

The final exam has not yet been scheduled.

**A minimum mark of 50% on the final exam is required to pass the course.**

### *Appeals*

All appeals of marks assigned in this course must be made within 10 days of the posting date.

## COURSE POLICIES

### *Academic Integrity:*

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensure that a degree from Carleton University is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. Carleton University's Policy on Academic Integrity (<http://www.carleton.ca/studentaffairs/academic-integrity>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. It is your responsibility to be familiar with these policies. Any students who do not act with academic integrity will face severe consequences including immediate referral to Associate Dean of Student Affairs.

### *Email Policy*

The instructor is more than happy to answer questions related to course content or administration via email. Effort will be made to reply to emails as soon as possible, but please expect a possible delay of up to 48 hours for a response. In addition, complex technical questions should be addressed during office hours, or by appointment. Emails must come from official Carleton University email addresses or through cuLearn. The instructor will not respond to emails from outside addresses.

### *Extensions and Rewrites*

In the interest of fairness for all students, requests for rewrites will only be granted for situations that are truly out of a student's control.

### *Course Material Copyright*

Classroom teaching and learning activities, including lectures, discussions, presentations, etc., are copy protected and remain the intellectual property of the instructor. All course materials, including PowerPoint presentations, outlines, and other materials, are also protected by copyright and remain the intellectual property of the instructor.

Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s). Students are not permitted to upload these copyrighted course materials to any online repositories.

### *Academic Accommodation*

**Students with diverse learning styles and needs are welcome in this course.**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

*Pregnancy obligation:* write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: <http://www2.carleton.ca/equity/>

*Religious obligation:* write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: <http://www2.carleton.ca/equity/>

*Academic Accommodations for Students with Disabilities:* The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your **Letter of Accommodation** at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). **Requests made within two weeks will be reviewed on a case-by-case basis.** After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website ([www.carleton.ca/pmc](http://www.carleton.ca/pmc)) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at <http://www2.carleton.ca/equity/>