

Western University  
Faculty of Engineering  
*Thompson Centre for Engineering Leadership and innovation*

**ELI 9200 – Engineering Planning and Project Management**

COURSE OUTLINE Summer 2025

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**DESCRIPTION**

*This undergraduate/graduate toggled course is an introduction to the most widely accepted project management practices in the workforce today. It is based upon the guide published by the Project Management Institute known as “The Project Management Body of Knowledge” – or PMBOK. Project Management lends itself to being taught properly in either one of two ways. It can either be analyzed sequentially across the five phases of a project (initiating, planning, executing, monitoring and controlling, and closing) or it can be decomposed into its 12 areas of necessary expertise for the professional practitioner and then introduced to the student. We choose this second approach. We do so for several reasons, not least of which is that this is in keeping generally with the order in which most scholarly works tackle the subject. The course content for which the student is responsible, is developed in the software package “Storyline” by Articulate Ltd. The curriculum is designed to be delivered in Brightspace Owl for online sections or it can be applied in person in a classroom setting. The student will note numerous enhancements to the course curriculum in part to compensate for semi-synchronous instruction methodology when we do teach the course online. As we are in class this semester, students may choose to engage these gamified elements, or they may wish to forgo this. Besides gamification, students will note the professor may choose to occasionally introduce video guest lectures from leading individuals on campus. An instructor will be available via email, and messenger at all times throughout the course. Response times in this regard will vary but in general students should not have to wait more than 48 hours for any enquiries. The course is to be delivered in synchronicity. Students will be allowed a limited amount of flexibility in proceeding through the course at their own pace lecture wise, but all assessments are completed to a consistent group timing. We will meet weekly for lectures. The final exam format is to be an in person intramural mixed / multiple choice assessment.*

**ENROLLMENT RESTRICTIONS**

Enrollment in this course is restricted to graduate students in any of the following M. Eng. programs: Chemical, Biochemical, Civil, Environmental, Electrical, Computer, Mechanical, and Materials.

## INSTRUCTOR CONTACT INFORMATION

Course instructor:

Email address:

Office:

Office hours: By appointment only. Highly flexible.

## COURSE FORMAT

The course is in person, face to face, with synchronous delivery. Some preparation is occasionally required.

## PREREQUISITES

ELI 9200: A student being in good standing with the Masters in Engineering program is the only requisite.

## FINANCIAL OBLIGATIONS

The case study applied in the Major Assignment costs each student ~\$9.95 Cdn.

## TOPICS

Topic #	Description	Learning Activities	Timeline of introduction
1	Introduction to Project Management	<ul style="list-style-type: none"><li>• One Storyline lecture</li><li>• Additional reading material</li><li>• One gamified summary quiz</li></ul>	Week 1
2	Project Life Cycle and Organization	<ul style="list-style-type: none"><li>• One Storyline lecture</li><li>• Additional reading material</li><li>• One gamified summary quiz</li><li>• Reflection: Leadership</li></ul>	Week 2
3	Project Management Processes	<ul style="list-style-type: none"><li>• One Storyline lecture</li><li>• Additional reading material</li><li>• One gamified summary quiz</li><li>• Reflection: Organizational structure</li></ul>	Weeks 3

4	Integration Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• One gamified summary quiz</li> <li>• Gamified assignment</li> </ul>	Week 4
5	Scope Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• One gamified summary quiz</li> <li>• Reflection: well-managed scope</li> </ul>	Week 5
6	Time Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• Additional reading material</li> <li>• One gamified summary quiz</li> <li>• Gamified assignment</li> </ul>	Week 6
7	Cost Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• Additional reading material</li> <li>• One gamified summary quiz</li> <li>• Gamified assignment</li> </ul>	Week 7
8	Special Topics: Agile & LEED	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• Additional reading material</li> </ul>	Week 8
9	Communication Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• Additional reading material</li> <li>• Voice thread or other peer review</li> </ul>	Week 9
10	Human Resource Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• Additional reading material</li> </ul>	Week 10

		<ul style="list-style-type: none"> <li>• Gamified assignment</li> <li>• Reflection: PEO &amp; PMI</li> </ul>	
11	Risk Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• Additional reading material</li> </ul>	Week 11
12	Procurement Management	<ul style="list-style-type: none"> <li>• One Storyline lecture</li> <li>• Additional reading material</li> <li>• Gamified assignment</li> </ul>	Week 12

### Lecture / Tutorial Schedule Section 001

Date	Time	Hours (nominal)	Date
Tuesday, May 6 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Tuesday, May 6 <sup>th</sup> , 2025
Thursday May 8 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Thursday May 8 <sup>th</sup> , 2025
Tuesday May 13 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Tuesday May 13 <sup>th</sup> , 2025
Thursday May 15 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Thursday May 15 <sup>th</sup> , 2025
Tuesday May 20 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Tuesday May 20 <sup>th</sup> , 2025
Thursday May 22, 2025	9:30 am – 12:30 pm	3	Thursday May 22, 2025
Tuesday May 27 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Tuesday May 27 <sup>th</sup> , 2025
Thursday May 29 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Thursday May 29 <sup>th</sup> , 2025
Tuesday June 3 <sup>rd</sup> , 2025	9:30 am – 12:30 pm	3	Tuesday June 3 <sup>rd</sup> , 2025
Thursday June 5 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Thursday June 5 <sup>th</sup> , 2025
Tuesday June 10 <sup>th</sup> , 2025	9:30 am – 12:30 pm	3	Tuesday June 10 <sup>th</sup> , 2025
Thursday June 12 <sup>th</sup> , 2025	9:30 am – 12:30 pm	-	Thursday June 12 <sup>th</sup> , 2025
<i>In Class EXAM Date</i>	9:30 am – 12:30 pm		<i>In Class EXAM June 12, 2025</i>
<b>Total Synchronous Teaching Hours</b>		<b>33</b>	

Please note: Additional **OPTIONAL** Tutorials **MAY** be added. If this is done, the instructor will ensure that **ALL** students have availability. This may necessitate multiple offerings of these events. Lectures will not be filmed.

## SPECIFIC LEARNING OUTCOMES

Degree Level Expectation	Weight	Assessment Tools	Outcomes
<b>Depth and breadth of knowledge</b>	30%	<ul style="list-style-type: none"> <li>• Assignments 2 &amp; 3</li> <li>• Major Assignment</li> <li>• Mid Term</li> <li>• Final Assessment</li> <li>• Discussions</li> </ul>	<p>Understanding of computational and/or empirical methodologies to solve project management problems.</p> <p>Articulate a knowledge of, and understand what activities are required during project initiating, planning, executing, controlling, and closing.</p> <p>Attain familiarity and confidence with the management of integration, cost, time, scope, quality, human resources, risk, and communication on projects.</p>
<b>Research &amp; scholarship</b>	5%	<ul style="list-style-type: none"> <li>• Assignment 1</li> </ul>	<p>Apply themselves and foster in others an appreciation for project management best practices in the carrying out of academic scientific research.</p>
<b>Application of knowledge</b>	30%	<ul style="list-style-type: none"> <li>• Major Assignment</li> </ul>	<p>Ability to apply knowledge in a rational way to analyze a particular problem</p> <p>Ability to use coherent approach to design a particular engineering system using existing design tools</p>
<b>Professional capacity / autonomy</b>	5%	<ul style="list-style-type: none"> <li>• Assignment 1</li> <li>• Major Assignment</li> </ul>	<p>Awareness of academic integrity - Turnitin</p> <p>Ability to implement established procedures and practices in the coursework related to APA citations</p> <p>Understands what is expected of a professional engineer from a professional project manager.</p> <p>Understands the roles and responsibilities of a professional project manager.</p>
<b>Communication skills</b>	15%	<ul style="list-style-type: none"> <li>• Major Assignment</li> <li>• Assignment 1</li> <li>• Discussions</li> </ul>	<p>Ability to communicate (oral and/or written) ideas, issues, results and conclusions clearly and effectively.</p> <p>Apply in themselves and foster in others an appreciation for project management best practices in the workplace.</p>
<b>Awareness of limits of knowledge</b>	15%	<ul style="list-style-type: none"> <li>• Assignments 1,2,3</li> <li>• Major Assignment</li> <li>• Discussions</li> </ul>	<p>Clearly communicates the difference between a process and a project and thereby knows when to apply project management practices.</p> <p>Understands and practices the commonly accepted professional standards of project management.</p>

## ASSESSMENTS

Name	Material Covered	Due Date	% Weight
Homework Assignments (3)	Lessons Topics 1 and 2	May 12, 2025	21%
	Lesson Topics 6 to 9	May 19, 2025	
	Lesson Topics 7 to 11	May 26, 2025	
Major Assignment (1)	Lesson Topics 1-12	May 26, 2025	20%
Term Tests (1)	Lesson Topics 1-7	May 29, 2025 in class time	14%
Student to Student Discussion (5)	Lesson Topics 1 - 12	Fridays at midnight	15%
Final Assessment	Lesson Topics 1 - 12	June 12, 2025	30%

### **Activities in which collaboration is permitted:**

As a general statement, all assessments in this course are to be completed independently with the exception of the major assignment which is done in groups. Some informal collaboration among classmates is tolerated so long as it is restricted to reflective discussion with one another, or if it is related to the development of skills necessary for completing an activity. Examples are provided below to mitigate any ambiguity in that statement:

- Assignments 1 through 3
  - An example of a tolerable collaboration would be evidence of discussing the leadership skills of individuals in cases provided to test if a classmate has the same impression as you the student in question.
  - An example of an intolerable collaboration would be evidence of copying one another's calculations related to a crashing, resource levelling, learning curve, net present value, or other Right/Wrong summative questions as might be possible for example in one of your 3 individual assignments.
- The Major Assignment
  - An example of tolerable collaboration between students would be evidence of one student having a discussion with a student from another group regarding the perspective of the group members on both teams related to the case.
  - An example of intolerable collaboration between students would be evidence of joining a website where information is shared across many class groups and either providing or receiving information on such sites.

### **Activities in which students must work alone (collaboration is not permitted):**

- The mid term
- The final assessment

## **REQUIRED TEXTBOOK**

Project Management – The Managerial Process – Larson & Gray 8<sup>th</sup> edition – McGraw Hill  
ISBN: 978-1-260-57043-4 (Mandatory e-book or bound copy)

The Project Management Body of Knowledge (PMBOK) – 7<sup>th</sup> edition or higher – PMI  
ISBN: 978-1628251845 (Mandatory e-book or paperback)

## **OPTIONAL COURSE READINGS**

All optional readings are uploaded to the Brightspace Owl site.

## **CHEATING, PLAGIARISM/ACADEMIC OFFENCES**

Academic integrity is an essential component of learning activities. Students must have a clear understanding of the course activities in which they are expected to work alone (and what working alone implies) and the activities in which they can collaborate or seek help; see information above and ask instructor for clarification if needed. Any unauthorized forms of help-seeking or collaboration will be considered an academic offense. University policy states that cheating is an academic offence. If you are caught cheating, there will be no second warning. Students must write their essays and assignments 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. Plagiarism is a major academic offence. Academic offences are taken seriously and attended by academic penalties which may include expulsion from the program. Students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence at the following website: [https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_grad.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf)

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>).

## **COURSE CONTENT**

The lecture notes and online lecture videos are copyrighted to the instructor and legally protected. Do not post these videos and lecture notes on any other website or online forums. The recording of the live/synchronous sessions of the course without the permission from the instructor is prohibited. The illegal posting and sharing of the copyrighted course content could be subjected to both legal actions as well as academic discipline.

## **CONDUCT**

Students are expected to follow proper etiquette to maintain an appropriate and respectful academic environment. Any student who, in the opinion of the instructor, is not appropriately participating in course activities and/or is not following the rules and responsibilities associated with the course activities, will be reported to the Associate Dean (Graduate) (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Associate Dean (Graduate), the student could be debarred from completing the assessment activities in the course as appropriate.

## **HEALTH/WELLNESS SERVICES**

As part of a successful graduate student experience at Western, we encourage students to make their health and wellness a priority. Western provides several health and wellness related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree. Information regarding health- and wellness-related services available to students may be found at <http://www.health.uwo.ca/>.

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate chair), or other relevant administrators in their unit. Faculty of Engineering has a Student Wellness Counsellor. To schedule an appointment with the counsellor, contact Kristen Edwards ([khunt29@uwo.ca](mailto:khunt29@uwo.ca)) via confidential email and you will be contacted by our intake office within 48 hours to schedule an appointment.

Students who are in emotional/mental distress should refer to Mental Health Support at <https://www.uwo.ca/health/psych/index.html> for a complete list of options about how to obtain help.

## **SICKNESS**

Students should immediately consult with the Instructor (for a particular course) or Associate Chair (Graduate) (for a range of courses) if they have problems that could affect their performance. The student should seek advice from the Instructor or Associate Chair (Graduate) regarding how best to deal with the problem. Failure to notify the Instructor or the Associate Chair (Graduate) immediately (or as soon as possible thereafter) will have a negative effect on any appeal. Obtaining appropriate documentation (e.g., a note from the doctor) is valuable when asking for accommodation due to illness.

Students who are not able to meet certain academic responsibilities due to medical, compassionate or other legitimate reason(s), could request for academic consideration. The Graduate Academic Accommodation Policy and Procedure details are available at:

<https://www.eng.uwo.ca/graduate/current-students/academic-support-and-accommodations/index.html>

Please note that any academic considerations granted in this course will be determined by the instructor, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course outline.

## **ACCESSIBLE EDUCATION WESTERN (AEW)**

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program. Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with Accessible Education Western (AEW): [http://academicsupport.uwo.ca/accessible\\_education/index.html](http://academicsupport.uwo.ca/accessible_education/index.html)

AEW is a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both AEW and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction.

## **STATEMENT ON GENDER-BASED AND SEXUAL VIOLENCE**

Western is committed to [working to end gender-based and sexual violence on campus and in our community](#) and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced gender-based or sexual violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts, [here](#). To connect with a case manager or set up an appointment, please contact [support@uwo.ca](mailto:support@uwo.ca).

## **USE OF GENERATIVE ARTIFICIAL INTELLIGENCE (AI)**

Instructors must indicate whether the use of generative artificial intelligence (AI) tools/software/apps is acceptable, permitted in specific situations, or unacceptable in their course. Instructors may refer to the Centre for Teaching and Learning for resources on the use of generative Artificial Intelligence