

CSCI2690 Introduction to Software Projects Course Syllabus W24

Instructor Information

Instructor: Michael Goudreault Office: CS 307

E-mail: <u>michaelg@dal.ca</u> **Office Hours:** T 14:00-16:00

Class Meeting Times: T 11:35-12:55 Room No: LSC 242

R 11:35-12:55 Room No: CHEB 170

Course Homepage: https://dal.brightspace.com/d2l/home/309678

Important Dates

Add/Drop Deadline: January 22, 2024

Munro Day (no classes): February 2, 2024

Final Withdrawal Date without academic penalty: February 6, 2024

Midterm Exam: February 16, 2024

Winter Study Break (no classes): February 19-23, 2024 Final Withdrawal Date with financial penalty: March 6, 2024

Last class of term: April 10, 2024

Deadlines: Please see the table in the assignment section **Final Exam:** TBA in the April exam period – April 11-23, 2023

Course Description

Students will learn how software projects are planned, implemented, and closed. Topics include planning, project life cycles, measurable organizational value, work breakdown structures, scheduling, scope, risk, change requests, conflict resolution, closure, and post-mortems.

Learning Outcomes

- Recognize and develop measurable organizational value and business case of a project.
- Apply project planning and estimation techniques.
- Describe the importance of project scope and scope management.
- Differentiate project life cycles in both waterfall and agile methodologies and their connection to the software development life cycle.
- Identify relevant stakeholders and explain their role in the project.
- Construct a work breakdown structure for a project and understand its connection to schedule and resource management.
- Explain how team dynamics, organizational structure and conflict can affect project outcomes.
- Differentiate how change is managed in agile and waterfall environments and identify how to manage change in a project environment.
- Describe role of quality in project management.
- Identify and weigh risks within a project environment.
- Implement effective project closing including conducting post-mortems and producing lessons learned documentation.

Course Rationale

This course provides a broad foundation in project management in the context of software projects. The concepts introduced will support students in participating in CSCI2691/3691/4691 as well as in business situations.

Class Format and Course Communication

- The class will follow an alternating format each week. Tuesday sessions will be a lecture format; Thursday sessions will be activity based and focus on applying concepts on your team project.
- The lecture components will be recorded and uploaded on Brightspace.
- Students must ask the instructor permission before recording class lectures.
- Urgent or important course announcements will be posted to the course mail list, which comprises the instructor's and students' Dal emails. It is the student's responsibility to check their Dal e-mail on a daily basis.

Evaluation Criteria

Initial Project Reflection (5%)

- o In Week 2, there will be the opportunity to experience a mini project.
- o This assignment is an individual submission, reflecting on this experience.
- Due January 23, 2024.

Team Project Documentation (40%)

- Eight assignments, each worth 5%
- Each assignment is a team endeavour and it is expected to represent the contributions of the team. The grade assigned on the assignment will apply to all team members unless clear evidence is provided that a team member was not participating.
- If a team member is not participating teams may follow the team firing process outlined below.
- Assignments are due at 11:59pm on the following dates:

	Due Date	Description	
Assignment 1	Jan 30	Project proposal	
Assignment 2	Feb 6	Project charter	
Assignment 3	Feb 13	Stakeholder and communications Plan	
Assignment 4	Feb 20	Risk Register	
Assignment 5	Feb 27	Work breakdown structure	
Assignment 6	Mar 26	Information radiator	
Assignment 7	Mar 28/Apr 4	Final client presentations	
Assignment 8	Apr 9	Lessons learned submission	

Team Final Product (5%)

- Production of a solution to the project challenge. It should meet the criteria set by the client.
- o Due March 26, 2024.

Midterm (10%)

- o The exam will take place in-class on March 7.
- o The exam will cover all material discussed prior to that point in the course.
- If the grade in the final exam is greater than the midterm, the final exam grade will replace the midterm grade.

Participation (10%)

- Each team member will provide a review of how their teammates performed throughout the term. Where a team member feels they have been unfairly marked by their peers, a formal request can be made to the instructor to review the attendance, MS Teams chat log, and submissions to determine whether additional participation credit is warranted.
- o Due Apr 4, 2024.

Final Exam (30%)

- o The exam will be scheduled by the university in April.
- o The exam will be closed book, paper-based, and will cover all material in the course.

Notes

- A minimum grade of C is required in this course if it is core to your FCS degree, or if it will be used as a prerequisite for a subsequent CSCI course.
- As of 2019, students who receive a grade lower than C in the same required CS course twice, will be dismissed.
- The grade conversion scale in Section 17.1 of the Academic Regulations, Undergraduate Calendar will be used. https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&chapterid=7302&topicgroupid=32188&loaduseredits=False
- A student must pass (50%) both the assignment component and the exam component to pass the course.

Late submission (and SDA) policy

Due to the nature of this course the SDA policy **will not apply**. Most assignments have allocated class time and groups are expected to adapt and plan submissions to accommodate short term issues affecting individual team members.

For exceptional circumstances, students should meet with the course instructor to discuss options and accommodations to that situation. This must be done *well in advance of the deadline*.

Formal accommodations may also be requested from the Academic Support Office. Their team is able to provide a wide range of accommodations depending on your personal situation and coordinate their use across your courses. To submit a request book a meeting with the Academic Support Team early in the semester to ensure they are applied prior to relevant assignments/exams.

Software used

Brightspace will be used as a resource bank. All course materials, readings, recordings, etc. will be stored there.

MS Teams will be used as the primary communication platform. Your group will be allocated a private channel and the general "Course Q&A" channel is the quickest way to have questions answered.

Mentimeter will be used throughout the class to gauge understanding. The software is a free, anonymous polling software, and a join code will be provided each session.

Required Texts and Resources

- The required text for this class is:
 - Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide) and The Standard for Project Management, 7 ed. Newton Square, PA: Project Management Institute, 2021.
- Please ensure it is the seventh edition as it has changed significantly from previous versions.
- This is available as an <u>ebook in the university library</u> or can be accessed <u>for \$32USD</u> by joining <u>the PMI as a student member</u>. The print edition is significantly more expensive and as such is not recommended.
- For each session additional readings will be provided. These provide additional details on the topic.

Tentative List of Topics

Module	Week Commencing	Principles	Domain
Project Management	2024-01-08	N/A	N/A
Tailoring	2024-01-15	Tailoring	Development Approach & Project Lifecycle
Measurable Organizational Value	2024-01-22	Value & Stewardship	
Teamwork	2024-01-29	Team	Team
Stakeholders	2024-02-05	Stakeholders	Stakeholders
Uncertainty	2024-02-12	Risk and Complexity	Uncertainty
Planning	2024-02-26	Planning & Change	Planning
Project Work	2024-03-04		Project Work
Quality	2024-03-11	Quality & Adaptation	Measurement
Project time	2024-03-18		Project Work
Delivery	2024-03-25	Systems Thinking	Delivery
Review and Closing	2024-04-01		Delivery

Firing a Team Member

On rare occasions, teams may find that a team member is not contributing to the group. If this becomes an ongoing issue, teams may follow the team member disciplinary procedure outlined below:

- 1. The team must meet with the team member and *politely* explain the situation and make a plan to move forward as a team. This should be documented with a follow-up message explaining what was discussed.
- 2. The team must allow the team member the opportunity to rejoin the group and participate in the next assignment.
- 3. If no improvement is made on the following assignment, the team must book a meeting with the instructor to discuss the situation.
- 4. The instructor will follow up with the team member to discuss their participation.
- 5. At the instructor's discretion the team member may be given the opportunity to continue with the group or will be required to complete the remainder of the assignments as an individual.

Exam Requirements

Photo ID is required

 Closed book. No dictionaries, notes, calculators, cell phones, PDAs, or other electronic aids allowed.

Academic Standards

Failure to properly attribute sources in your work will be treated as an academic standards issue and points may be deducted for not following citation requirements. For example, forgetting to quote text taken from other sources, failure to include in-text citations, or a failure to include required information in the citations or references. Please see the resources on proper citation provided by the Dalhousie Writing Center (https://dal.ca.libguides.com/c.php?g=257176&p=5001261). All references should follow the IEEE style.

Please note that if it appears that the error was made with intent to claim other people's work as your own, such as a lack of both citations and references, an allegation of plagiarism will be submitted to the Faculty Academic Integrity Officer, which could result in consequences such as a course failure.

Responsible Computing Policy

Usage of all computing resources in the Faculty of Computer Science must be within the Dalhousie Acceptable Use Policies (https://www.dal.ca/computer Science Responsible Computing Policy. For more information please see https://www.dal.ca/content/dam/dal-housie/pdf/faculty/computerscience/policies-procedures/fcs_policy_local.pdf

Use of Plagiarism Detection Software

Submitted work may be passed through Ouriginal or similar plagiarism detection systems. If a student does not wish to have their assignments passed through plagiarism detection software, they should contact the instructor for an alternative. Please note, that code not passed through plagiarism detection software will necessarily receive closer scrutiny. https://cdn.dal.ca/content/dam/dal-housie/pdf/dept/university_secretariat/policy-repository/OriginalitySoftwarePolicy.pdf

Use of Artificial Intelligence Tools

You may use Al-driven tools to assist you in learning but remember that your objective is to understand, achieve, and apply the course competencies and outcomes. While you may use tools for learning, specific assessments in this course will disallow the use of Al-driven tools to assert that you have attained course learning outcomes. This is because a graduate must be able to analyze, assess and produce work unassisted by Al technology. Where tools are allowed: you must acknowledge all tools used to assist you. If applicable, you must provide links to chat logs. Using Al-driven tools where prohibited constitutes an academic offense.

Student Health and Wellness

Taking care of your health is important. As a Dalhousie student, you have access to a wide range of resources to support your health and wellbeing. Students looking to access physical or mental health & wellness services at Dalhousie can go to the Student Health & Wellness Centre in the LeMarchant Building. The team includes: registered nurses, doctors, counsellors and a social worker. Visit dal.ca/studenthealth to learn more and book an appointment today.

Students also have access to a variety of online mental health resources, including telephone/texting counselling and workshops/training programs. Learn more and access these resources at dal.ca/mentalhealth.

Culture of Respect¹

Every person has a right to respect and safety. We believe inclusiveness is fundamental to education and learning. Misogyny and other disrespectful behaviour in our classrooms, on our campus, on social media, and in our community is unacceptable. As a community, we must stand for equality and hold ourselves to a higher standard.

What we all need to do:

- 1. **Be Ready to Act:** This starts with promising yourself to speak up to help prevent it from happening again. Whatever it takes, summon your courage to address the issue. Try to approach the issue with open-ended questions like "Why did you say that?" or "How did you develop that belief?"
- 2. **Identify the Behaviour:** Use reflective listening and avoid labeling, name-calling, or assigning blame to the person. Focus the conversation on the behaviour, not on the person. For example, "The comment you just made sounded racist, is that what you intended?" is a better approach than "You're a racist if you make comments like that."
- 3. Appeal to Principles: This can work well if the person is known to you, like a friend, sibling, or co-worker. For example, "I have always thought of you as a fair-minded person, so it shocks me when I hear you say something like that."
- 4. **Set Limits:** You cannot control another person's actions, but you can control what happens in your space. Do not be afraid to ask someone "Please do not tell racist jokes in my presence anymore" or state "This classroom is not a place where I allow homophobia to occur." After you have set that expectation, make sure you consistently maintain it.
- 5. **Find or be an Ally:** Seek out like-minded people that support your views, and help support others in their challenges. Leading by example can be a powerful way to inspire others to do the same.
- 6. **Be Vigilant:** Change can happen slowly, but do not let this deter you. Stay prepared, keep speaking up, and do not let yourself be silenced.

University Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and the Senate. https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&loaduseredits=False

Territorial Acknowledgement

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people.

Dalhousie acknowledges the histories, contributions, and legacies of the African Nova Scotia people and communities who have been here for over 400 years.

Internationalization

At Dalhousie, 'thinking and acting globally' enhances the quality and impact of education, supporting learning that is "interdisciplinary, cross-cultural, global in reach, and orientated toward solving problems that extend across national borders." https://www.dal.ca/about-dal/internationalization.html

¹ Source: Speak Up! © 2005 Southern Poverty Law Center. First Printing. This publication was produced by Teaching Tolerance, a project of the Southern Poverty Law Center. Full "Speak Up" document found at: http://www.dal.ca/dept/dalrespect.html. Revised by Susan Holmes from a document provided April 2015 by Lyndsay Anderson, Manager, Student Dispute Resolution, Dalhousie University, 902.494.4140, lyndsay.anderson@dal.ca/think.

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect. As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity. (read more: http://www.dal.ca/dept/university_secretariat/academic-integrity.html)

Accessibility

The Student Accessibility Centre is Dalhousie's centre of expertise for matters related to student accessibility and accommodation. If there are aspects of the design, instruction, and/or experiences within this course (online or in-person) that result in barriers to your inclusion please contact: https://www.dal.ca/campus_life/academic-support/accessibility.html for all courses offered by Dalhousie with the exception of Truro.

Conduct in the Classroom — Culture of Respect

Substantial and constructive dialogue on challenging issues is an important part of academic inquiry and exchange. It requires willingness to listen and tolerance of opposing points of view. Consideration of individual differences and alternative viewpoints is required of all class members, towards each other, towards instructors, and towards guest speakers. While expressions of differing perspectives are welcome and encouraged, the words and language used should remain within acceptable bounds of civility and respect.

Diversity and Inclusion — Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2). (read more: http://www.dal.ca/cultureofrespect.html)

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. (read more: https://cdn.dal.ca/content/dam/dalhousie/pdf/dept/university_secretariat/policy-repository/Code%20of%20Student%20Conduct%20rev%20Sept%202021.pdf)

Fair Dealing Policy

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie. (read more: https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html)

Originality Checking Software

The course instructor may use Dalhousie's approved originality checking software and Google to check the originality of any work submitted for credit, in accordance with the Student Submission of Assignments and Use of Originality Checking Software Policy. Students are free, without penalty of grade, to choose an alternative method of attesting to the authenticity of their work, and must inform the instructor no later than the last day to add/drop classes of their intent to choose an

alternate method. (read more: https://cdn.dal.ca/content/dam/dalhousie/pdf/dept/university_secretariat/policy-repository/OriginalitySoftwarePolicy.pdf)

Student Use of Course Materials

These course materials are designed for use as part of the CSCI courses at Dalhousie University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as books, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law. Copying this course material for distribution (e.g. uploading material to a commercial third party website) may lead to a violation of Copyright law.

Learning and Support Resources

Please see https://www.dal.ca/campus_life/academic-support.html