CS2212B Course Outline
Introduction to Software Engineering
Winter 2025

1. Course Information

The informal approaches that most individual programmers use when writing small programs do not work very well when applied to the development of large pieces of software and team programming situations. Software engineering is a discipline that applies principles of traditional engineering to improve software, as well as its development and maintainability.

In this course, we will examine the stages of the software engineering process, including requirements gathering, specification, design, implementation, and testing. We will also cover the practicalities of software engineering, covering a number of the key tools and technologies leveraged in successful endeavours. A large group project, completed by teams of students, will serve to reinforce concepts learned and give students practical experience developing software in a realistic work environment.

The following list of topics may be covered, depending on time and the dynamics of the semester.

- Overview of software engineering
- Software processes and workflows
- Agile software development
- Software requirements gathering and modelling
- Software design concepts
- Implementation of software
- Testing and software quality management
- Managing software projects
- Enterprise-scale software and collaboration tools

Prerequisite Requirements

- Computer Science 2210a/b and 2211a/b
- Students are assumed to be familiar with the Java programming language and Object-Oriented Programming.

Antirequisites

- Software Engineering 2203A/B

Unless you have either the requisites for this course or written special permission from your Dean's Designate (Department/Program Counsellors and Science Academic Advisors) to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

2. Instructor Information

Instructor:	Dr. Daniel Servos
E-Mail:	dservos5@uwo.ca *(please include CS2212 in the subject of all e-mails)*
Office:	MC387
Office Hours:	By Appointment Book via: http://danielservos.ca/apt
Website:	http://danielservos.ca

Office Hours

Instructor office hours must be booked 24 hours in advance using the above link. When booking an office hour, you should include a description of the topic you wish to discuss and any relevant files including a copy of any assignment, project, document, etc. that you wish to ask questions about.

E-Mail Contact

Students must use their Western (@uwo.ca) email addresses when contacting their instructor and include "CS2212" in the subject line of their e-mail. Failing to do this may result in your e-mail being marked as spam and not delivered properly. Every attempt will be made to answer all e-mails within two business days (non holiday Mondays to Fridays). Please keep this in mind when deadlines are approaching and plan to start work early enough to receive a reply to any questions.

E-mails regarding personal matters and accommodations should be sent directly to the course instructor (dservos5@uwo.ca) and not a teaching assistant.

E-mails regarding assignment marking and regrading should first be addressed to the TA who marked your assignment and only to the course instructor if your discussion with the TA was not satisfactory.

General questions should be posted to the OWL Brightspace course forums.

3. Course Schedule & Delivery Mode

The format of this course will be **blended** with both in-person lectures/tutorials and asynchronous online videos. Readings, videos, and other online resources will be posted weekly to the OWL course site each Monday before 10AM. To be successful in this course, you will nee to both attend the in-person lectures and complete the assigned videos/readings.

Lecture Hours

- **Tuesday[*]:** 10:30AM to 12:30PM in AHB-1R40
- **Friday[+]:** 11:30AM to 12:30 PM in AHB-1R40

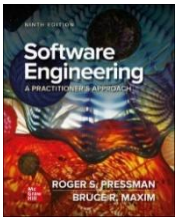
** Attendance and active participation in the Tuesday lecture is required and part of your participation grade.*

+ The Friday lecture time will be used for in-class quizzes, time for teams to work on the term long group project, and time to watch lecture videos. On weeks without in-class quizzes, teams are expected to use this time to meet with their team rather than attend class in-person (no lecture will be held on these days).

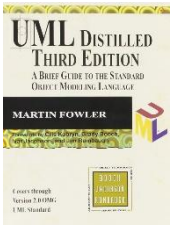
Students are expected to bring blank paper and writing utensils to class**. Bringing a laptop is also highly encouraged** to enable you to follow along with examples and tutorials.

4. Course Materials

Required Textbooks
The following textbooks will be used for this course. They are available for purchase from the university bookstore and other sources as both a physical book and eTextbook:



Software Engineering: A Practitioner's Approach
(Required)
9th Edition
By Roger Pressman and Bruce Maxim
ISBN10: 1259872971
ISBN13: 9781259872976
Price: $112.15 (printed) or $59.00 (180-day rental)
https://www.mheducation.com/highered/product/1259872971.html



UML Distilled: A Brief Guide to the Standard Object Modeling Language
(Very Strongly Recommended)
3rd Edition
By Martin Fowler
ISBN: 978-0321193681
Price: $61.99
https://martinfowler.com/books/uml.html

Additional free online references and suggested readings may also be provided throughout the course as the project requires them. Please check the course OWL website weekly for updates and more information.

How the Textbooks will be Used
Readings and **ungraded** homework from these texts will be assigned weekly on OWL. Typically, two chapters a week will be assigned from Software Engineering: A Practitioner's Approach and only one week will have a reading from UML Distilled.

While nothing from the textbooks will be directly graded (e.g. any homework assigned directly from the questions in the text are ungraded) you will be expected to know the content of the assigned readings for any tests or assessments.

We will **not** be using any online components of the text. Purchasing a used copy of either textbook is acceptable, but it is recommended that you find a copy that has the same edition number.

The UML Distilled text will be an important resource for you and your team when working on the group project and is **very strongly recommended**, however, this information can also be found for free via online resources and as such is not listed as required. Once teams are formed you may want to ensure at least one team member has a copy of this text.

Technology Requirements:

- Access to a modern personal computer running Windows or macOS.
- A webcam (can be built into a laptop).
- A microphone (can be built into a laptop).
- A reliable internet connection.
- A laptop, smartphone, or tablet you can take to class that can access Western's Wi-Fi network and can open sites via a web browser.
- The **current desktop version** of Microsoft Office which includes Excel (free for western students).

OWL Course Site

The course website is located within OWL Brightspace. To access the website, navigate to https://westernu.brightspace.com and login with your Western University account (user id and password). All course content, assigned readings, notes, assignments, and class information will be posted to this site each week. **You are responsible for checking the course site regularly** *(at least once a week including **both the weekly unit pages and announcements**)*. This is the primary method by which information will be disseminated to all students in the class.

If you need assistance with the OWL course site, you can find support on the OWL Brightspace Help page. Alternatively, you can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

CS1.ca Site

This course makes use of the CS1 ASK Tool (http://cs1.ca) which is available for free to students. By taking this course you are agreeing to sharing some basic information with this tool including your student ID/username, email address, photo from your student ID (only visible to the course instructor), and class attendance/participation metrics. This tool is run and controlled by your course instructor and this information will only be shared with your course instructor (barring any unintentional security breaches).

5. Methods of Evaluation

Element	Weight
Group Project	54%
Participation	10%
Quizzes (x3) **or** Final Exam	36%

Essential Requirements

To be eligible to obtain a passing mark (50% or over) in the course you must satisfy ALL of the following requirements:

1. You must obtain a weighted Quiz/Final Exam grade of **at least 40%.**
2. You must attend and be present in-person at the acceptance testing meeting with your team and TA at the end of the term *(unless a documented consideration request is approved for your absence).*
3. You must attend and be an **active participant** in the group project which entails all of the following:
    a. Obtain a **grade of 40% or over** on your team's peer evaluation of your performance in your team project.
    b. Contribute in some way to each milestone in the group project (as shown by the edit, commit, and issue history on GitLab).
    c. Regularly attending **both** your **team's weekly meetings,** and the **biweekly stand-up meeting** with your team's assigned TA. You must **attend at least half of each type of meeting** to pass the course. For the purposes of this requirement, the acceptance testing meeting counts as a biweekly stand-up meeting.

If you fail to satisfy any of these criteria, your maximum final grade for this course will be **capped at 45%.** Note that even when Academic Considerations are granted for missed coursework, these requirements are deemed essential to earn a passing grade (with the exception of the acceptance testing meeting).

Rounding & Curving of Grades

Final grades will be rounded to a whole number by truncating the decimal places (i.e. taking the floor of the decimal final grade such that an 89.56% becomes an 89%).

To ensure a consistent and fair grading scheme, project, quiz, and exam grades maybe be normalized or curved to ensure consistency in marking between different TA graders. A curve may also be applied to final grades to ensure overall averages fall within historical ranges for the course.

6. Group Project

All students are required to be an active participant in a term long group project that will involve the specification, design, and implementation of a reasonably large-scale software system. While the project is a group project, **grades will be assigned to each student based on both group and individual performance for each component.** Individual performance will be based on a number of factors, some of which may include peer evaluations, contributions made during class, repository logs, individual reports of work completed, meeting minutes, individual performance during the project demonstration, and so on. **Failure to be an active participant in your group project will result in you being unable to satisfy the essential requirements given in section 5 and failing the course.**

Details on the overall topic of the project will be posted to OWL by January 13th, with more details on each project component posted on the dates listed in the table below *(these dates are **tentative** and subject to change)*. Any changes, updates, and clarifications to these descriptions and dates will be posted on the OWL website. The due dates on OWL should be considered the official due dates.

Project Components *(dates are tentative)*

Component	**Weight (*of your final grade)***	**Posted On OWL By *(tentative)***	**Due Date *(by 11:59PM) (tentative)***
Requirements Documentation *(group work)*	5%	January 13th	February 7th
Design Documentation *(group work)*	8%	February 3rd	March 7th
Implementation and Testing *(group work)*	20%	February 3rd	March 31st
Project Video & Acceptance Testing *(group work)*	10%	February 3rd	March 31st
Project Postmortem *(individual)*	1%	February 24th	April 4th
Peer Review of You by Your Team *(individual)*	10%	N/A	N/A

All dates listed above are tentative and subject to change.

The project components are worth 54% of the overall mark for the course. If a component must be cancelled for the whole class for any reason, the remaining project component weights will be pro-rated to add up to 54%.

Your Team

- You will be given the opportunity to form your own teams of 4 or 5. The deadline to do so is January 18th. After this date the instructors will finalize the composition of the teams. Student not on a team will be placed on a team by the instructor. The instructor will attempt to make sure that each team has at least 4 members and no more than 5 members.
- If a team has less than 5 members, the instructor may add additional team members at their discretion up until January 25th. After January 25th the teams will be finalized.
- All teams will be assessed the same regardless of the number of members.
- Individual students may submit a request to be taken out of the team to which they were assigned for a **good reason** (such as a prior conflict with one of the team members). Such requests must be made to the instructor before January 25th and detail the good reason. **No changes are allowed in team composition after January 25th.**

Weekly Team Meetings (team only)

- Students are required to keep in contact and collaborate closely with their teammates through weekly meetings scheduled and organized by the team starting on January 20th.
- Weekly meetings may occur in-person or virtually online (e.g. using Zoom or MS Teams). **Online meetings cannot be done solely through e-mail or a text/audio only medium and require that all members have their webcam on during the meeting.**
- Weekly meetings should be **at least** 1 hour long, and it is highly recommended that you use some of this time to work on project deliverables together collaboratively (e.g. utilizing pair-programming). The Friday lecture time is provided as free time that all team members should have available.
- **Each team is required to write minutes of each meeting**, listing date, time, attendance, what the topics of discussion in the meeting were, any decisions that were made, and which team members were assigned which tasks.
- A weekly meeting is not required during reading week or after the acceptance testing has been completed.
- Weekly meetings cannot be held on holidays recognized by Western University.
- All team members are expected to attend these meetings and teams are expected to schedule meetings during times when all members can attend.
- Failing to hold or properly document these meetings will impact the team's project grade. Each major project component will have part of the points allocated to meeting minutes for meetings that have occurred up until that point. Furthermore, the essential requirements listed in Section 5 require minimum meeting attendance to pass this course.

Biweekly Stand-Up Meetings (with your TA)

- Teams are required to meet biweekly (every other week) with their team's assigned TA to keep them apprised of the progress of the project, any concerns they may have, or issues the team may be facing. These are different from the Weekly Team Meetings.
- The week a team meets with their TA is determined by the teams assigned number. Even teams will meet on even weeks and odd teams on odd weeks (see the meeting schedule in the next section for week numbers and details).
- **It is the team's responsibility to work with their assigned TA to arrange a day of the week and time for these meetings that works for all members and the TA.** Failure to follow up or respond to the TA is not grounds for missing these meetings. Failing to let the TA know that time does not work for you is not grounds for missing a meeting.
- If your team cannot come to an agreement on when to meet with your assigned TA, you **must** let the instructor know before January 20th.
- These meetings should be **at most** 20 minutes long.
- Teams must come prepared to each meeting and be able to present what progress has been made since the last meeting, any issues blocking their progress, and their plans for the upcoming week.

- All team members are expected to attend these meetings and be active participants. Failing to attend or be an active participant may result in failing this course (see the essential requirements in Section 5).

Stand-Up Meeting Schedule

- **Week 1 (Jan 5 - 11):** No meeting this week.
- **Week 2 (Jan 12 - 18):** No meeting this week.
- **Week 3 (Jan 19 - 25):** Odd numbered team meet with TA
- **Week 4 (Jan 26 – Feb 1):** Even numbered team meet with TA
- **Week 5 (Feb 2 - 8):** Odd numbered team meet with TA
- **Week 6 (Feb 9 - 15):** Even numbered team meet with TA
- **Reading Week (Feb 16 – 22):** No meetings this week
- **Week 7 (Feb 23 – Mar 1):** Odd numbered team meet with TA
- **Week 8 (Mar 2 - 8):** Even numbered team meet with TA
- **Week 9 (Mar 9 - 15):** Odd numbered team meet with TA
- **Week 10 (Mar 16 - 22):** Even numbered team meet with TA
- **Week 11 (Mar 23 - 29):** No meetings this week
- **Week 12 (Mar 30 – Apr 5):** Acceptance testing (all teams meet with TA)

Project Demonstration (Acceptance Testing)

- **Project demonstrations will take place between March 31st and April 4th.** The exact date and time of acceptance testing will be determined closer to the date.
- This involves 1) creating a short video presentation that showcases the team's finished implementation of the project, its features, how it satisfies the project requirements and 2) meeting with the team's TA one last time for acceptance testing where they will answer questions about the process and design of their project. **All team members must be present for acceptance testing.**
- Teams are responsible for scheduling a demonstration date/time that works for all team members and their assigned TA. **No class will be held this week to give times when all students should be available.**

Peer Evaluations

- Each student will be evaluated by their own team members and the team's final project demonstration video will be evaluated by a small group of students on other teams.
- Your review of your team members will be based on the team contract your team created and how you feel your team members performed in your group.
- Your review of other teams will be based on the project demonstration video created by the other team.
- Peer Evaluations must be fair, reasonable, accurate, and use professional language. Reviews must include both a numerical evaluation as well as detailed feedback. Failing to provide any written

feedback, use of unprofessional language, or providing an unfair/untrue review may result in a significant mark penalty.

- The official due date for both peer evaluations is April 4th at 11:59PM. However, a no late penalty period of 3 days will be given to allow for any extraordinary circumstances including technical issues. After the no late penalty period, peer reviews will not be accepted and a zero-grade given if they are not submitted. You are expected to start the reviews well enough in advance of the due date to account for any technical issues.

Submission

- All components must be type-written for legibility and digitally created (not scans or photos of written work) to facilitate electronic submission. If components require the creation of diagrams or illustrations, these too must be done electronically. Appropriate tools will be discussed in class and in the descriptions of the components.
- All digital submissions (including diagrams and peer evaluations) must be legible and written in English. Any submissions that cannot be understood by the marker (due to spelling, grammar, language used, poor image resolution, etc.) will be given a zero grade. It is the student's responsibility to ensure all diagrams are legible, not cut off, and have a reasonable resolution.
- You are required to submit each component electronically through OWL **in addition to** retaining a copy on any collaboration tools used. If final submissions are too large for OWL submission, alternate arrangements must be made with the course instructor before the due date.
- **Components are expected to be individual efforts (where individual could also mean designated group in the case of a group project component).** Any code or content that is borrowed from an existing source, book, course resource, generated by a tool, or created by a person not in the group must be clearly identified as such in the appropriate documentation; otherwise, this may constitute a plagiarism offence. This includes any code created by AI tools such as ChatGPT or Code Autopilot as well as any other tool that generates code or diagrams.
- While discussion about the project is encouraged between groups, directly using code or copying from another group (including groups from past semesters) is strictly prohibited and a scholastic offence for all groups involved. Groups should not share any project components with other groups.
- Using code or content you have previously created (e.g. for past courses or projects) is not allowed without written permission from the course instructor. This includes any work created for this course in past terms (if you are retaking it).
- Borrowing a large amount of code from outside sources (even if it is properly identified) will lead to a reduced implementation component grade. You will only be granted marks on code your team writes and implements. If you have any doubt about how much is too much, please ask the course instructor for guidance.

Late Policy

- It is expected that groups budget enough time to properly submit their project components via OWL and allow for any unforeseen technological issues. Groups are expected to regularly backup their work and submit well before any deadline.

- **The late penalty for all group work components is a zero grade on the component.** However, each team will be given **5 late coupons** they can use to add a no late penalty period of 24 hours per ticket (up to a **maximum of 3 tickets per component**).
- Late coupons **cannot** be used on individual components (i.e. the Project Postmortem) or the Project Video & Acceptance Testing components (as other teams will need this video to complete their peer evaluations).
- All of a team's late coupons must be used before any consideration requests or extenuating circumstances are considered.
- No action is required by a team to use a late coupon. Simply submit late, and the correct number of late coupons will be used. If insufficient late coupons remain for the number of days late or the component is more than 3 days late, a zero grade will be given.
- It is the responsibility of the team to keep track of how many late coupons they have remaining. Your team's TA will keep an estimate of the number of coupons your team has remaining, but this may not be updated in real time.

Marking

- Project components will be marked by a teaching assistant assigned to the course to provide feedback and assign a grade for that project component.
- Every effort will be made to have project components marked by the teaching assistant and feedback provided within 2 weeks of the component due date, preferably sooner.
- A request for adjustment of the grade returned by the teaching assistant must be made within 1 week of the date your project component was returned. After 1 week, the grade will be final if no request is made.
- Such a request must be first made to the teaching assistant who marked your project component. If your discussion with the teaching assistant was not satisfactory, you may submit it in writing (e-mail) to the course instructor. **You must include the specific and detailed reasons why you believe the component was not marked correctly.**
- Component grades may be normalized and/or curved as described in Section 5 to ensure consistency in grading between teaching assistants. This may raise or lower your teams grade compared to that assigned by the teaching assistant.

Backups

It is your responsibility to keep up-to-date backups of all project components and project files in case of system crashes or inadvertently erased files. Retain copies of all material handed in, as well as the actual graded version, to guard against the possibility of lost components or errors in recording marks. It is not safe to discard these materials until you are satisfied that your final mark for the course has been computed properly.

No extension or accommodation will be given for lost files or work. It is expected that teams back up their work **as well as** store it on the team's repository.

7. Quizzes OR Final Exam

Students are given the option of either writing 3 quizzes or a final exam for their 36% quiz/final exam grade. The weight of each of the three quizzes is 12%. The weight of the final exam is equal to the total weight of all quizzes missed during the term. For example, if one quiz is missed, the final exam is worth 12%, if all quizzes are missed, the final exam is worth 36%, if no quizzes are missed the final exam is worth 0% (and you may **not** write the final exam).

There will be three quizzes **tentatively** scheduled for the following dates:

Quiz #	**Date** *(Held during Friday lecture time)*	**Weight of Final Grade**
1	January 31st	12%
2	February 28th	12%
3	March 21st	12%

The weight of any missed quizzes will automatically be placed on the final exam. No consideration request or documentation is required. The weight of a quiz will **not** be moved to the final exam if you write the quiz, even if your final exam grade is higher. Due to this flexibility, no makeup quizzes will be offered.

The format, length, and content of each quiz or exam will be announced before the quiz/exam but may include any content covered to date in the course. This may include content from lectures, online videos, assigned readings, and the group project.

Quizzes will be held during Friday lecture time. The location/room the quiz will be held in will be announced before the quiz (it may not necessarily be the same as the lecture room). It is the student's responsibility to arrive on time. No extra time will be given to arriving late. In such cases you should simply not write the quiz and have the weight placed on the final exam.

The final exam will be held during the December final exam period and will be 3 hours in length, closed book, and comprehensive. You may **not** write the final exam if you have written all three quizzes and doing so will have no impact on your final grade.

8. Participation

As Computer Science is a highly collaborative field, it is important to develop the skills and tools you need to work with others on complex programming and technical problems. For this reason, CS2212 in-class lectures makes use of active learning and group work activities. It is expected that you will be an active participant in all course activities and come prepared by completing the required readings and videos before class each week.

Participation will be tracked using “participation points” that are awarded for different activities that demonstrate engagement and participation in the course, aiding other students, completing in-class activities, answer questions in-class, or making meaningful contributions on the course forums.
The following are examples of activities that award participation points (other opportunities may be added at the instructor’s discretion):

Activity	Participation Points	Description
Completing in-class activities during the Tuesday lecture. ***(Primary means of earning points)***	Up to 150 points per week and at most 1,500 in total.	Tuesday lectures may include a group work activity or tutorial section that asks you to work with a group to complete a small poll, quiz, short written response, or other activity. Completing these (even if your answer is incorrect) will reward points so long as the instructions of the activity were followed correctly. These activities must be done in-class during the designated time and recorded through the http://cs1.ca tool. **For full points a proper summary of the activity must be submitted** through the tool. Most (but not necessarily all) weeks will have 150 points worth of activities **in total**.
Attending a Stand-Up Meeting. ***(Primary means of earning points)***	200 points per meeting, and at most 800 in total.	Attending one of your regularly scheduled stand-up meetings with your TA and team will earn 200 points but only if you are an active participant in the meeting. To count you must arrive on time and stay for the duration of the meeting. Acceptance testing does not count as a TA meeting for the purposes of participation points.
Participation tickets. ***(Optional bonus, not required for a full participation grade)***	75 points per ticket.	During in-class lectures the instructor **may** award participation tickets for answering a question out loud in-class or otherwise showing involvement in the lecture. These tickets will award 75 participation points if entered into the http://cs1.ca tool. Tickets must be entered into the tool within one week of being issued and must be earned by you (you can not enter another student's ticket).
Help another student by answering a question on the course forums. ***(Intended as a way to make up for missed lectures or obtain the participation bonus)***	Up to 50 points per answer, and at most 300 in total.	Answering an **unanswered** question posted by another student on the course forums in a meaningful way or **significantly** adding to an already answered question. To count, the answer must be posted in good faith and **within in one week** of the question being asked. No points will be awarded to students working together to post/answer questions purely for points. Most meaningful answers will be given 25 points on average depending on the quality. **At most 300 points can be earned from answering questions on the forums.**
Creating a tutorial and posting it to the course forums. ***(Intended as a way to make up for missed lectures or obtain the participation bonus)***	Up to 200 points per tutorial, and at most 400 in total.	Creating a tutorial related to one of the topics, technologies, or software used in the course that is not otherwise covered by the course material and posting it to the OWL course forums. To count for points, 1) the topic may not already be covered by a tutorial posted by another student, 2) the tutorial must be detailed, and clear effort must have done to create it (equivalent of at least one hour of work), 3) the tutorial must have been posted at a time in the course when it would be helpful to other students (i.e. it can not be on a topic for which the related project component is already due), 4) it must contain content not fully covered by the course material, and 5) it must include graphics/media (e.g. screenshots,

		diagrams, video, example files, etc.) to demonstrate the concept being taught. Most primarily text-based tutorials will be given 100 points on average depending on the quality. Most video-based tutorials will be given 150 on average depending on the quality. **At most 400 points can be earned from posting tutorials and at most 200 points per tutorial.**

Participation points will be converted into percentage (out of 10%) to calculate your final participation mark using the following table:

Level	**Grade** (out of 10%)	**Minimum Participation Points Required**
0	0%	0
1	1%	150
2	2%	225
3	3%	340
4	4%	460
5	5%	600
6	6%	810
7	7%	1050
8	8%	1330
9	9%	1650
10	10%	2000
11	10% + Bonus	2500 *(A small, less than 2%, bonus will be applied to your final grade if you obtain over 2,500 points. The exact worth of the bonus will depend on how many points past 2,500 you are and the number of students that obtained this level. This can not make your final grade go over 100%).*

No fraction of percentages will be granted for participation. You must make it to the next level to increase your participation grade. For example, 975 points would still be a level 6, worth 6%.

Important! If you experience technical issues during the lecture that prevent you from submitting the in-class group work via the in-class responses system you **must** inform the instructor during or immediately after the lecture (before the instructor leaves the room). Failing to do so will result in no participation points being earned for the activity.

Due to technical limitations, participation points will not be updated live, and it is your responsibility to estimate them if you wish to track your progress. However, the CS1.ca tool will show you which in-class activities you have completed and how many participation tickets you have input. A final official calculation will be done **after** April 4th and **all work that counts towards participation must be completed by April 4th at 11:59pm.**

The final subjective decision of what constitutes a “meaningful contribution” or how may points is assigned for a contribution is at the sole discretion of the course instructor. Quantity or length of posts/answers is not a substitute for quality and multiple low-quality posts/answers do not add up to one meaningful contribution. While spelling and grammar will not be marked, all posts/answers must be legible, intelligible, and written in English.

The course instructor reserves the right to switch the in-class response tool to different software should issues arise with the http://cs1.ca response tool. In such a case, the points will remain the same and only the tool used to submit answers/record participation will change.

To encourage students to read this course syllabus in full 100 participation points can be earned by navigation to http://cs1.ca/ask/syb?c=cs2212 and inputting your username and student number by January 24th. No points will be granted for this after this date. You may not share this link with other students.

At the instructor's sole discretion, participation points may be removed for disruptive in-class or online behaviour including but not limited to talking during inappropriate times, inappropriate comments, or failing to work well with other students during group work activities. Participation points may also be removed for attempting to "cheat" the participation system. For example, submitting in-class group work for students not in attendance or giving a participation ticket to a student that did not earn it. Spamming the discussion forums or the in-class response system with low quality posts purely to inflate your participation mark may also be penalized.

Sharing a participation code with a student not in attendance or submitting work for a student not in attendance is considered to be an academic offence for all students involved. As is using a participation ticket you did not earn. Academic offences related to participation will result in a zero-participation grade and referral to the integrity committee who may apply additional penalties.

9. Missed Coursework and Accommodation

General information about missed coursework
Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs* posted on the Academic Calendar:
https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person.

The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult Accessible Education.

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage:
https://registrar.uwo.ca/academics/academic_considerations/

All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline. *Note that this is within 48 hours of the original deadline and* ***not*** *grace period provided by late coupons.*

All Academic Consideration requests must include supporting documentation; however, recognizing that formal documentation may not be available in some extenuating circumstances, the policy allows students to make one Academic Consideration request **without supporting documentation** in this

course. However, the following assessments are excluded from this, and therefore always require formal supporting documentation:

- Examinations scheduled during official examination periods (Defined by policy)
- The Group Project* (Designated by the instructor as the one assessment that always requires documentation when requesting Academic Consideration)

  ** The multiple milestones of the group project for this course are considered to be the one assessment that is "always requiring documentation" for the purposes of this policy even though they have separate deadlines.*

When a student *mistakenly* submits their one allowed Academic Consideration request **without supporting documentation** for the assessments listed above or those in the **Coursework with Assessment Flexibility** section below, the request cannot be recalled and reapplied. This privilege is forfeited.

Evaluation Scheme for Missed Assessments
When a student misses the Final Exam and their Academic Consideration has been granted, they will be allowed to write the Special Examination (the name given by the University to a makeup Final Exam). See the Academic Calendar for details (under Special Examinations), especially for those who miss multiple final exams within one examination period.

Essential Learning Requirements
Even when Academic Considerations are granted for missed coursework, the following are deemed essential to earn a passing grade:

- The essential learning requirements are listed in Section 5 of this document.

Coursework with Assessment Flexibility
By policy, instructors may deny Academic Consideration requests for the following assessments with built-in flexibility:

Flexible Completion
Quizzes. This course has three (3) quizzes worth 12% each. The weight of any missed quizzes will be automatically placed on the final exam. Academic consideration requests will be denied as they are **not required** for this reweighting.

In-Class Participation. The points system described in Section 8 of this document provides more opportunities for participation points then required for a full participation grade. If you miss a lecture with a participation activity you may make up for by completing one of the alterative methods for earning participation points (e.g. writing a tutorial for the course forums). Academic consideration requests will be denied for in-class participation (as means for making up the lost points are already provided) unless a significant number of lectures or TA standup meetings will be missed for documented reasons (more than it would be possible to makeup for by alternatives). The alterative in extraordinary cases (more than can be made up for by alternatives) would be placing the full weight of the participation mark on the quizzes/final exam.

TA Stand-up and Team Meetings. Attending a set number of TA Stand-up and Team Meetings are an Essential Learning Requirement for this course (see Section 5 for details). Flexibility is provided by allowing students to miss a half of these without penalty. Any meetings missed beyond the limits

set in Section 5 of this document require a documented consideration request that covers the date of the meeting. Such a request must be submitted within 48 hours of the missed meeting. If the consideration request is approved, the number of meetings required will be reduced by the number of meetings covered by the consideration request.

Deadline with a No-Late-Penalty Period

Group Project Components. Teams are expected to submit each of the group project components by the deadline listed on OWL. Should extenuating circumstances arise, students **do not** need to request Academic Consideration and they are permitted to submit their assignment up to 3 days past the deadline without a late penalty if they have late coupons remaining. Should a team submit their assessment beyond the 3 days past the deadline limit or without sufficient late coupons remaining, a total late penalty of 100% will be applied and a zero grade will be assigned for this component. Academic Consideration requests will not be granted for group work as students are excepted to exchange group project duties with another team member rather than allowing the team to miss the deadline. Teams are also expected to manage their late coupons properly to account for any unforeseen circumstances.

Peer Reviews. Both peer reviews have a 3 day no late penalty window after the official due date. Due to this flexibility, no consideration requests will be approved unless they cover the official due date, are documented, and could not otherwise be covered by the provided flexibility. The weight of the reviews will be moved to the quizzes/final exam component if a documented consideration request is approved and covered the correct dates.

Other Coursework

The following describes how coursework without built in flexibility will be accommodated:

Acceptance Testing. Attending the acceptance testing meeting is required to pass this course. Alternatively, if a documented consideration request covering the date of the acceptance testing is provided with in 48 hours of the scheduled acceptance testing date and approved, you will be excused from attending this meeting.

Project Video Submission. As your project video is required to allow other students to provide a peer evaluation of your team, no flexibility can be given for the deadline. As this is a groupwork component it is expected that students exchange duties with other team members if they are unable to complete their assigned work on the video. In extraordinary cases, where **multiple** team members are impacted and provide documented consideration requests within in 48 hours of the deadline, a short extension of no more than 5 days will be provided, and the peer evaluation of the video will be replaced by grading by the course instructor or teaching assistant.

10. Additional Statements

Religious Accommodation

When conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible but not later than two weeks prior to the writing of the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays:

https://www.edi.uwo.ca.

Accommodation Policies
Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic Accommodation_disabilities.pdf

Academic Policies
The website for Registrar Services is https://www.registrar.uwo.ca/.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner.

All quizzes and exams are closed book and notes. No electronic devices are allowed during quizzes and exams including but not limited to smart phones, smart watches, calculators, headphones, ear buds, or smart watches. Having any of these items out during a test is a scholastic offence.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

All required project submissions may be subject to submission for textual, code, and meta data similarity review to the commercial and custom plagiarism detection software under license to the University for the detection of plagiarism. Such services may include Turnitin, Gradescope, MOSS, and custom software created by the course instructor. All work submitted for such checking may be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of Turnitin and Gradescope are subject to the licensing agreements, currently between The University of Western Ontario and the respective service providers.

Computer-marked tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Support Services
Please visit the Science & Basic Medical Sciences Academic Advising webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic-related matters: https://www.uwo.ca/sci/counselling/.

Students who are in emotional/mental distress should refer to Mental Health@Western (https://uwo.ca/health/) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at

https://www.uwo.ca/health/student_support/survivor_support/get-help.html

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at

http://academicsupport.uwo.ca/accessible_education/index.html

if you have any questions regarding accommodations.

Learning-skills counsellors at Learning Development and Success (https://learning.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: https://www.uwo.ca/se/digital/.

Additional student-run support services are offered by the USC, https://westernusc.ca/services/.