



**COSC 499 (6) Capstone Software Engineering Project
Winter 2024 Terms 1-2**

Lectures:

Section 002: Bowen Hui, bowen.hui@ubc.ca	Mon/Wed	3:30pm - 5:00pm in LIB 312
Section 003: Youry Khmelevsky, youry.khmelevsky@ubc.ca	Tue/Thur	3:30pm - 5:00pm in SCI 333
Office Hours: TBD by Instructor		
Course Website: https://cmps-people.ok.ubc.ca/bowenhui/499/ (also mirrored on Canvas)		

Academic Calendar Entry

COSC 499 (6) Capstone Software Engineering Project

A capstone project requiring team software development for an actual client. Students must produce comprehensive reports and deliver presentations. Credit will not be granted for both COSC 499 and COSC 319.

Prerequisites: COSC 304, COSC 341, and COSC 310.

Course Format

This entire course is a team project that will consist of in-person labs supported by the instructor, independent research, client feedback, and teamwork. In-person class attendance is mandatory.

Learning Outcomes

Upon completion of this course, students will be able to:

- Apply software engineering principles to work in a team on a non-trivial project
- Gain hands-on experience with design and implementation issues
- Adopt industry standards and use them in the programming project
- Collect, synthesize, and evaluate information or data from reliable sources
- Troubleshoot technical problems and propose alternative feasible solutions

Evaluation Criteria

1. Team marks:		35%
Team Logs and Collaboration Process	10%	
Project Plan	5%	
Milestone #1 Demonstration	3%	
Milestone #2 Demonstration	4%	
Milestone #3 Demonstration	5%	
Milestone #4 Final Project	8%	
2. Individual marks:		60%
A. Work Contributions:		
- Personal Logs, In-class Participation, Evaluations	10%	
- Feature Contributions	10%	
- Test Contributions	10%	
- Code Review Contributions	6%	
- Peer Testing #1	2%	
- Peer Testing #2	2%	
B. Knowledge Assessment:		
- Exams	20%	
3. Client feedback:		5%
Ongoing feedback	2%	
Final project feedback	3%	
Overall:		100%



Team marks component: The listed assignments are first given team marks assigned by the instructor based on the quality of the submitted deliverables and presentations. This team mark is used in combination with peer evaluation reviews so that each individual will receive a mark calculated based on the team mark of the submission and the input made by their peers. In addition, a team can decide to remove one of its members from the team (a) if all the other members have consulted the issues with the individual in question and proof is accepted by the instructor, and (b) all the other members independently agree that this individual needs to leave the team. In this case, the individual has 3 calendar weeks to do one of the following: (i) convince the original team to reconsider, (ii) convince another team for adoption, or (iii) work independently for the rest of the project and receives 0 for ALL aspects of the grade that involves teamwork.

Individual marks component: Students are graded on their weekly work, in-class participation, and their overall knowledge about the project as a whole.

Client feedback component: Project clients will complete a questionnaire that provides input for a team mark assigned by the instructor. This is done twice throughout the project.

Late Policy

Due to the emphasis on professionalism in this course, no late work will be accepted without a valid medical note. The same policy applies to all in-class assessments. Note that if an assignment is due Sunday 11:59pm and the learning management system submission is closed at midnight, your work will not be accepted (this is automatically set by the system and out of our control). Therefore, ensure you submit your work early.

Passing Criteria

In order to pass the course:

- Students MUST achieve a passing grade of $\geq 50\%$ in the client feedback component.
- Students MUST achieve a passing grade of $\geq 50\%$ in the team marks component.
- Students MUST achieve a passing grade of $\geq 50\%$ in the individual marks:**work contributions** component.
- Students MUST achieve a passing grade of $\geq 50\%$ in the individual marks:**knowledge assessment** component.

Failure to satisfy all of the above clauses will result in a maximum of 45% for the course.

Expectations

- Attend all classes and prepare before attending class.
- Bring your development laptop to class and be prepared to give a live demo of your work at the START of every class.
- Be professional in interacting with your instructor, TA's, teammates, and client.
- Be prepared before attending meetings.
- Commit to the team's goals, communicate honestly with your team, and do your fair share of the work.
- I want all students to pass, receive a good grade, produce a great project, and feel the course was beneficial.
- For this course, it is expected that you will spend at least 8 hours per week on out-of-class preparation.

Tentative Course Schedule and Required Readings

See the tentative schedule on the course website. General readings are provided on the website. Independent reading and research is required and the content will vary based on the specific project.

Grade Appeals

We intend to grade all submitted work within one week of the due date. All submitted work comes with a grading rubric on the Canvas learning management system. TAs are required to provide both a numeric mark in the rubric as well as written comments to indicate what was wrong if marks are taken off. Students are responsible for reviewing their grades and feedback to understand the progress of their learning. If you have questions or disagree with any part of your marks, you have three calendar weeks to appeal your grade with the grader and instructor.

In this case, your first point of contact is to submit a comment on the graded work on Canvas. The grader and instructor will review your comment, ask questions if needed, and make changes to the grade as appropriate. If you still are not satisfied with the results, you can contact the Department Head at cmps.depthhead@ubc.ca or in room SCI 200.



Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work; nor should you help others to do the same. For example, it is prohibited to: share your past assignments and answers with other students; work with other students on an assignment when an instructor has not expressly given permission; or spread information through word of mouth, social media, websites, or other channels that subverts the fair evaluation of a class exercise, or assessment. Learn more through the Academic Integrity website at <https://academicintegrity.ubc.ca/student-start/>.

Academic Misconduct

Violations of academic integrity (i.e., academic misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred for consideration for academic discipline. Careful records are kept to monitor and prevent recurrences. Any instance of cheating or taking credit for someone else's work, whether intentionally or unintentionally, can and often will result in at minimum a grade of zero for the assignment, and these cases will be reported to the Head of the Department and Associate Dean Academic of the Faculty.

Use of Generative Artificial Intelligence (AI)

Students are permitted to use artificial intelligence tools, including generative AI, to gather information, review concepts or to help produce assignments. However, students are ultimately accountable for the work they submit, and any content generated or supported by an artificial intelligence tool must be cited appropriately. Use of AI tools is not permitted during midterm exams and final exams in this course. Learn more through the Generative AI website at <https://genai.ubc.ca/resources/>.

Disability Resource Centre

The Disability Resource Centre (DRC) facilitates disability-related accommodations and programming initiatives that ameliorate barriers for students with disabilities and/or ongoing medical conditions. If you require academic accommodations to achieve the objectives of a course, please contact the DRC at:

UNC 215 250.807.8053

Email: drc.questions@ubc.ca

Web: <https://students.ok.ubc.ca/academic-success/disability-resources/>

Equity and Inclusion Office

Through leadership, vision, and collaborative action, the Equity & Inclusion Office (EIO) develops action strategies in support of efforts to embed equity and inclusion in the daily operations across the campus. The EIO provides education and training from cultivating respectful, inclusive spaces and communities to understanding unconscious/implicit bias and its operation within in campus environments. UBC Policy 3 prohibits discrimination and harassment on the basis of BC's Human Rights Code. If you require assistance related to an issue of equity, educational programs, discrimination or harassment please contact the EIO.

UNC 325H 250.807.9291

Email: equity.ubco@ubc.ca

Web: <https://equity.ok.ubc.ca/>

Office of the Ombudsperson for Students

The Office of the Ombudsperson for Students is an independent, confidential and impartial resource to ensure students are treated fairly. The Ombuds Office helps students navigate campus-related fairness concerns. They work with UBC



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community members individually and at the systemic level to ensure students are treated fairly and can learn, work and live in a fair, equitable and respectful environment. Ombuds helps students gain clarity on UBC policies and procedures, explore options, identify next steps, recommend resources, plan strategies and receive objective feedback to promote constructive problem solving. If you require assistance, please feel free to reach out for more information or to arrange an appointment.

UNC 217 250.807.9818

Email: ombuds.office.ok@ubc.ca

Web: www.ombudsoffice.ubc.ca

Student Learning Hub

The Student Learning Hub is your go-to resource for free math, science, writing, and language learning support. The Hub welcomes undergraduate students from all disciplines and year levels to access a range of supports that include tutoring in math, sciences, languages, and writing, as well as help with academic integrity, study skills and learning strategies. Students are encouraged to visit often and early to build the skills, strategies and behaviours that are essential to being a confident and independent learner. For more information, please visit the Hub's website at <https://students.ok.ubc.ca/academic-success/learning-hub/>.

Student Wellness

At UBC Okanagan health services to students are provided by Student Wellness. Nurses, physicians and counsellors provide health care and counselling related to physical health, emotional/mental health and sexual/reproductive health concerns. As well, health promotion, education and research activities are provided to the campus community. If you require assistance with your health, please contact Student Wellness for more information or to book an appointment.

UNC 337 250.807.9270

Email: healthwellness.okanagan@ubc.ca

Web: <https://students.ok.ubc.ca/health-wellness/>

SAFEWALK

Don't want to walk alone at night? Not too sure how to get somewhere on campus? Call Safewalk at 250-807-8076. For more information, see: <https://security.ok.ubc.ca/safewalk/>