THE UNIVERSITY OF BRITISH COLUMBIA
Irving K. Barber Faculty of Science
Okanagan Campus

Department of Computer Science, Mathematics, Physics and Statistics

COSC 499 Capstone Software Engineering Project

Instructor: Bowen Hui (SCI 257), bowen.hui@ubc.ca
Duration: Winter 2023 terms 1-2, 6 credits
Class: Tuesdays and Thursdays 12:30pm - 2:00pm at LIB 312
Office Hour: TBD
Course Website: https://cmps-people.ok.ubc.ca/bowenhui/499/

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.

Prerequisite: COSC 304, COSC 341, and 60%+ in COSC 310.

Course Format
This entire course is a team project that will consist of labs supported by the instructor, independent research, client feedback, and teamwork. Important calendar dates can be found at https://okanagan.calendar.ubc.ca/dates-and-deadlines.

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

Team marks:		**55%**
Project plan	10%	
Weekly team logs and collaboration process	20%	
Mini presentations	5%	
Design milestone submission	10%	
Peer testing session #1	5%	
Peer testing session #2	5%	
Individual marks:		**40%**
Final project submission	25%	
Weekly personal logs and in-class participation	5%	
Code and code review quality	5%	
Completed surveys and evaluations quality	5%	
Client feedback:		**5%**
Design milestone 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 then 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 remaining marks toward the "Team" component portion of the grade.

Individual marks component: Students are graded on their weekly work, in-class participation, and the submission of their final project.

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
No lates are accepted for in-class work (meetings, presentations, and testing sessions) without a valid medical note. All other deliverables are due at the stated time. Late work will receive a penalty of -10% per day up to a max of 3 days late, at which point the assignment receives a mark of 0 unless a valid medical note is received. For example, if the assignment is worth 10 marks and it is submitted two days late, it can have at most 8 marks. Note that if an assignment is due Friday 11:59pm and the learning management system receives your work at midnight, the submission is considered to be one day late even though it is only one minute past the due date (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 >= 50% in the client feedback component.
 • Students MUST achieve a passing grade of >= 50% in the team marks component.
 • Students MUST achieve a passing grade of >= 50% in the individual marks 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.
 • 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.

Required Readings and Videos
 • Independent research depending on project needs

Tentative Course Schedule
See the tentative schedule on the course website.

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 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.

LIB 237   250.807.8491
Email: learning.hub@ubc.ca
Web: 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

Department of Computer Science, Mathematics, Physics and Statistics

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/