Bow Valley College

Course Outline

CLCM3998

Cloud Computing Capstone Project
Fall 2025 - Current

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CLCM3998 Cloud Computing Capstone Project

COURSE DESCRIPTION

Students will connect with an industry partner through capstone projects, consulting projects, cooperative education, internships, and professional/clinical/practice/field experience/practica. This course presents learners with the opportunity to apply their skills in a simulated or actual workplace. Project work in this course needs to be of sufficient scope and depth to address a clear majority of the course competencies.

REQUISITES	Complete the following courses: • CLCM3102 - Cloud Application Requirements and Specifications (3) • CLCM3403 - Cloud Architecture Design and Implementation Planning (3) • CLCM3404 - Implementing Cloud Applications (3) • CLCM3504 - Continuous Integration and Continuous Deployment for Cloud Applications (3)
EQUIVALENTS	Complete the following courses: • CLCM3999 - Cloud Computing Capstone Project (3)
CREDITS	3
HOURS	45
ELIGIBLE FOR PLAR	Yes
ZERO TEXTBOOK COST	Yes

COURSE COMPETENCY

COMPETENCY TITLE

Plan, Execute and Present Cloud Projects

COMPETENCY STATEMENT

Cloud professionals use their planning, building, and design skills to plan, execute, and present Cloud projects that solve infrastructure problems or identify business needs.

COMPETENCY DESCRIPTION

Cloud professionals have taken on critical roles in a variety of high-value sectors and industries as the Cloud and Cloud solutions have grown in popularity. A Cloud project can be broken down into four major

stages: Cloud professionals collaborate with stakeholders to identify business requirements and translate them into project plans, design, and implementation during project design. A Cloud Professional has proven proficiency in fundamental cloud computing technology and security-related areas, as well as a demonstrated understanding of cloud computing concepts, models, and business considerations.

COURSE LEARNING OUTCOMES

Bow Valley College is committed to ensuring our graduates can demonstrate their abilities in key areas that will make them effective citizens and encourage their development as lifelong learners. In addition to the discipline-specific skills that learners acquire in their programs, the College has identified ten learning outcomes.

College-Wide Outcomes:

1. Communication
2. Thinking Skills
3. Numeracy and Financial Literacy
4. Working with Others
5. Digital Literacy
6. Positive Attitudes and Behaviours
7. Continuous Learning
8. Health and Wellness Awareness
9. Citizenship and Intercultural Competence
10. Environmental Sustainability

#	COURSE LEARNING OUTCOME(S)	COLLEGE WIDE OUTCOMES SUPPORTED
1	Research and evaluate an existing industry challenge as a member of a project team.	1, 2, 4, 5
2	Negotiate and prioritize project team roles to address client needs.	1, 2, 4, 5
3	Apply client engagement strategies while working on a work-integrated learning (WIL) project.	1, 2, 4, 5
4	Develop and present a Cloud solution that strategically addresses the industry challenges.	1, 2, 4, 5

LEARNING PATHWAY

**The time it takes learners to demonstrate competencies will vary. An example of a suggested schedule for learning and development is shown below. Learners will need to plan out their assessment attempts within their course. For additional information, please consult the Course Offering Information in Brightspace.*

WEEK/HOURS	LEARNING AND DEVELOPMENT PLAN
Week 1	Introduction, group formation
Week 2	Employer presentation, team charter
Week 3	Team charter, project proposal
Week 4	Project proposal
Week 5	Project proposal
Week 6	Project check-In
Week 7	Project solution and presentation
Week 8	Project solution and presentation
Week 9	Reading Week
Week 10	Project check-In
Week 11	Project solution and presentation
Week 12	Project solution and presentation
Week 13	Project check-In
Week 14	Project solution and presentation
Week 15	Project solution and presentation

COURSE MODULES AND SCHEDULE

**Course schedule subject to change, depending on delivery mode and term of study. For exact dates, please consult the Course Offering Information in Brightspace.*

WEEK/HOURS	MODULES
1	Version control with Git
2	HTML fundamentals
3	CSS fundamentals
4	CSS layouts
5	JavaScript fundamentals
6	JavaScript fundamentals
7	React fundamentals
8	React fundamentals
9	Reading Week
10	Serverless architecture
11	Working with databases
12	Building APIs
13	Building APIs
14	Scheduling tasks
15	Project

ASSESSMENT

This course follows an assessment-first approach, in which learners will be assessed, and receive structured feedback, and a personalized learning plan. Learners will also receive differentiated support from an instructor based on their individual needs.

Learners will have a variety of ways to demonstrate they have met the required competency through the demonstration of learning outcomes and criteria as laid out in the rubric. Learners will have multiple (but not unlimited) attempts to prove competency. It is suggested that learners plan out their assessment attempts within their course.

Learners will have flexibility in how they satisfy course learning outcomes while still adhering to the criteria found in the rubric and the Course Offering information. Please refer to the Course Offering Information and the rubric in Brightspace for additional information.

COURSE LEARNING OUTCOMES	ASSESSMENT
1, 2, 3, 4	Work-integrated learning projects

ASSESSMENT

COURSE LEARNING OUTCOME(S)	ASSESSMENT	WEIGHT
1, 2, 3, 4	Assignments (Minimum of 2)	20%
1, 2, 3, 4	Learning Activities	20%
1, 2, 3, 4	Project	40%

Important: For details on each assignment and exam, please see the Course Offering Information.

PERFORMANCE STANDARDS

A minimum grade of D is required to pass this course. However, a program may require a higher grade in this course to progress in the program or to meet specific program completion requirements.

Please consult with the program area or contact the program chair for further details. A minimum Grade Point Average of 2.0 is required for graduation.

GRADING SCHEME

Grade	Percentage	Grade Point	Description
A+	95-100	4.0	Exceptional: superior knowledge of subject matter
A	90-94	4.0	Excellent: outstanding knowledge of subject matter
A-	85-89	3.67	
B+	80-84	3.33	
B	75-79	3.0	Very Good: knowledge of subject matter generally mastered
B-	70-74	2.67	
C+	67-69	2.33	
C	64-66	2.0	Satisfactory/Acceptable: knowledge of subject matter adequately mastered
C-	60-63	1.67	
D+	57-59	1.33	
D	50-56	1.0	Minimal Pass
F	Less than 50	0.0	Fail: an unsatisfactory performance

REQUIRED LEARNING RESOURCES

Additional learning resources may be found in the Course Offering Information or in Brightspace.

ADDITIONAL INFORMATION

Additional information may be found in the Course Offering Information or in Brightspace.

ACADEMIC ACCOMMODATIONS

Learners with a disability (learning, physical, and/or mental health) may qualify for academic and exam accommodations. For more information, or to apply for accommodations, learners should make an appointment with Accessibility Services in the Learner Success Services (LSS) Department. Accessibility Services can also assist learners who may be struggling with learning but do not have a formal diagnosis. To make an appointment visit LSS on the first floor of the south campus or call 403-410-1440. It is the learner's responsibility to contact Accessibility Services and request academic accommodations. For more information, please visit our website at http://www.bowvalleycollege.ca/accessibility.

INSTITUTIONAL POLICIES

Bow Valley College is committed to the highest standards of academic integrity and honesty. Learners are urged to become familiar with and uphold the following policies: Academic Integrity (500-1-7), Learner Code of Conduct, Procedures and Guidelines (500-1-1), Learner Appeals (500-1-12), Attendance (500-1-10), Grading (500-1-6), Academic Continuance and Graduation (500-1-5), and Electronic Communications (300-2-13). Audio or video recording of lectures, labs, seminars, or any other teaching and learning environment by learners is allowed only with consent of the instructor as part of an approved accommodation plan. Recorded material is to be used solely for personal study and is not being used or distributed without prior written consent from the instructor.

Turnitin:

Students may be required to submit their course work to Turnitin, a third-party service provider engaged by BVC. Turnitin identifies plagiarism by checking databases of electronic books and articles, archived webpages, and previously submitted student papers. Students acknowledge that any course work or essays submitted to Turnitin will be included as source documents in the Turnitin.com reference database, where it will be used solely to detect plagiarism. The terms that apply to a student's use of Turnitin are described on Turnitin.com.

Online Exam Proctoring:

Examinations for this course may require proctoring through an online proctoring service. Online proctoring enables online exam taking within a controlled and monitored environment, thereby enhancing academic integrity. Online proctoring may occur through a variety of methods, including but not limited to:

a. live online proctoring where a remote invigilator authenticates identity and observes completion of an exam using specialized software and recordings;
b. automated proctoring where the exam session is recorded and AI (artificial intelligence) analyzed;
c. browser lockdown that limits access to other applications, websites, copying, printing, screen capture and other functions; or
d. a combination of both live/automated proctoring and browser lockdown.

Course instructors will review recordings, analyses, and data obtained through online proctoring for academic integrity infractions. It is the student's responsibility to meet the technical, software, location,

and identity verification requirements necessary to enable online proctoring.

Further details of these policies are available in the Academic Calendar and on the Bow Valley College website, bowvalleycollege.ca.

Learners are encouraged to keep a copy of this course outline for future reference.

Collection of Personal Information:

This course, including your image and voice, may be recorded and made available to you and other students taking the course section. By attending the class(es) online or in person, you consent to the collection of your personal information. If you do not wish to be recorded, please contact your instructor before starting the course/class to discuss alternative arrangements.

You may use the recordings only for educational purposes and you must not copy, share, or use the recordings for any other purpose without the instructor's express permission.

Your personal information is collected in accordance with section 33(c) of the Freedom of Information and Protection of Privacy Act (Alberta) to deliver academic programming, support learner flexibility, promote universal design for learning principles, and for purposes consistent with the course activities and outcomes. If you have any questions about the collection, disclosure, use, or protection of this information, please contact the College's Access and Privacy Officer at foip@bowvalleycollege.ca.