CYBR-203 – Cloud and Enterprise Security

Technology

Effective Term & Year: Fall 2027
Course Outline Review Date: 2032-03-01

Program Area: Information Technology

Description:

This course examines the security principles, technologies, and practices used to protect cloud and enterprise environments. Students explore cloud service and deployment models, security frameworks, identity and access management, data protection, and compliance requirements. Through practical activities and case studies, students apply security controls to manage access, protect sensitive information, and address organizational and regulatory requirements. The course develops the knowledge and skills required to secure modern cloud and enterprise systems while supporting confidentiality, integrity, availability, and compliance objectives.

Program Information:

This course is required for the Second Year of the Cybersecurity Operations program.

Delivery Methods: Hybrid – On-campus (Face-to-Face) and Online

Credit Type: College of the Rockies Credits

Credits: 3

Instructional Activity and Hours:

Activity	Hours
Classroom, Directed Studies or Online Instruction	30
Seminar/Tutorials	

Laboratory/Studio	30
Practicum/Field Experience	
Co-op/Work Experience	
Other	
Total	60

Course Requisites:

Prior Learning and Recognition: Yes

Students are able to request formal recognition of their prior learning or experience outside the classroom. Challenge examination, portfolio-assisted assessment, work-based assessment or a combination of assessments that is appropriate to identify, assess, and recognize prior skills, competencies, and knowledge to achieve course credit. Tuition fees apply, refer to Policy 2.5.5 Prior Learning Assessment and Recognition (PLAR) or contact an education advisor for more information.

Course Transfer Credit:

For information about receiving transfer credit for courses taken at either British Columbia or Alberta institutions, please see https://www.bctransferguide.ca/ or https://transferalberta.alberta.ca . For more transfer credit information, please visit https://www.cotr.bc.ca/Transfer

All requests for course transfer credit from institutions in British Columbia or elsewhere should go to the College of the Rockies Enrollment Service office.

Textbook Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date the following textbooks were in use:

Please see the instructor's syllabus or check COTR's online text calculator https://textbook.cotr.bc.ca/ for a complete list of the currently required textbooks.

Learning Outcomes:

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

- explain cloud computing models, security principles, and shared responsibility

requirements in cloud and enterprise environments;
- assess security risks, threats, and compliance requirements associated with cloud and enterprise systems;
- implement identity and access management solutions using authentication, authorization, federation, and privileged access management technologies;
- apply access control models and security controls to protect cloud and enterprise resources;
- implement data protection strategies using encryption, key management, classification, and data loss prevention technologies; and
- evaluate security practices and controls that support the confidentiality, integrity, availability, and compliance requirements of cloud and enterprise environments.

Course Topics:

- Cloud Computing Models and Architectures
- Shared Responsibility and Cloud Security Principles
- Cloud Security Frameworks and Compliance Requirements
- Identity and Access Management (IAM)
- Authentication, Federation, and Single Sign-On (SSO)
- Access Control Models and Privileged Access Management (PAM)
- Data Protection and Encryption
- Key Management and Cryptographic Services
- Data Classification and Data Loss Prevention (DLP)
- Data Residency, Sovereignty, and Regulatory Compliance

See instructor's syllabus for the detailed outline of weekly readings, activities and assignments.

Evaluation and Assessments

Assessment Type: On-Campus (face-to-face) and Online, or Hybrid

Assessment Type	% of Total Grade
Assignments	40%
Midterm	20%
In-progress	10%
Final Project	30%
Total	100%

Grade Scheme

A+	A	A-	B+	B	B-	C+	C	C-	D	F
>=90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	<50

Evaluation Notes: A grade of “D” grants credit, but may not be sufficient as a prerequisite for sequential courses.

Evaluation Notes Comments:

Please see the instructor’s syllabus for specific classroom policies related to this course, such as details of evaluation, penalties for late assignments and use of electronic aids.

Exam Attendance:

Students must attend all scheduled exams at the appointed time and place. Instructors may approve an alternate exam to accommodate an illness or personal crisis. Department heads will consider other written requests. Any student who misses a scheduled exam without prior approval will receive a “0” on the exam.

Academic Policies:

College of the Rockies policies related to courses can be found at https://cotr.bc.ca/about-us/college-policies/ and include the following:

- Policy 2.1.4 Course Audit
- Policy 2.4.1 Credential Framework
- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Rights, Responsibilities and Conduct
- Policy 2.4.8 Academic Performance
- Policy 2.4.9 Student Feedback and Concerns
- Policy 2.4.11 Storage of Academic Works
- Policy 2.5.3 Student Appeal
- Policy 2.5.5 Prior Learning Assessment and Recognition (PLAR)

Course Changes:

The College of the Rockies updates course outlines regularly to meet changing educational, employment and marketing needs. The instructor will notify students in writing of any updates to this outline during the semester. The instructor reserves the right to revise, add or delete material while meeting the learning outcomes of this course outline.