CIST-102 – Programming in JavaScript

Technology

Effective Term & Year: Fall 2025
Course Outline Review Date: 2030-03-01

Program Area: Information Technology

Description:

In this course, students will explore the fundamentals of building interactive web and mobile applications using JavaScript. They will learn essential programming concepts, including designing, writing, debugging, and executing their own code. Students will also analyze and model real-world problems using object-oriented programming while diving into advanced JavaScript topics such as asynchronous programming and functions. By the end of the course, students will have the skills to create functional and dynamic apps while gaining hands-on experience in software development.

Program Information:

This course is required for the first year of the Computer Information Systems Technology program.

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

Credit Type: College of the Rockies Credits

Credits: 4

Instructional Activity and Hours:

Activity	Hours
Classroom, Directed Studies or Online Instruction	40
Seminar/Tutorials	

Laboratory/Studio	40
Practicum/Field Experience	
Co-op/Work Experience	
Other	
Total	80

Course Requisites:

- Admission to the Computer Information Systems Technology Diploma Program

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 Columba or elsewhere should go to the College of the Rockies Enrolment Services 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:

Resources available digitally through the online platform.

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, the student will be able to:

- demonstrate the fundamentals of JavaScript and computer programming;
- declare and use variables effectively in program development;
- work with different data types and apply type casting as needed;
- write clear and maintainable code using comments and best practices;
- utilize operators for calculations, comparisons, and logical decisions;
- implement user interaction through input/output operations;
- control program flow using conditional statements and loops;
- design and call functions to create reusable and modular code;
- identify, handle, and debug errors and exceptions in JavaScript programs;
- apply troubleshooting techniques to resolve coding issues;
- work with classless objects and understand prototypal inheritance in JavaScript;
- implement object-oriented programming using classes and the class-based approach; and
- utilize built-in JavaScript objects for efficient development.

Course Topics:

- Programming processes and terminology
- Programming tools and style conventions
- Using variables in programming
- Using input and output
- Debugging tool
- Strings and operators
- Using a program to create decision statements
- Repetition structures
- Object techniques
- Polymorphism

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

Evaluation and Assessments

Assessment Type: On-Campus (face-to-face)

Assessment Type	% of Total Grade
Assignments	40%
Midterm Exam	20%

Project	20%
Final Exam	20%
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.