COLLEGE OF THE ROCKIES

Introduction to Programming – CIST 102
Computer Information Systems Technology Program

Course Outline

COURSE IMPLEMENTATION DATE: **September 2024**
OUTLINE EFFECTIVE DATE: **September 2024**
COURSE OUTLINE REVIEW DATE: **March 2029**

GENERAL COURSE DESCRIPTION:

This is an introductory course on programming. Learners will develop problem-solving skills through the use of detailed algorithms and be introduced to structured and object oriented design techniques. The course content includes standard program syntax, variable types, operators, input/output statements, decision and loop control structures, methods, encapsulation, instantiating and using objects. The course is taught in Python to keep the focus on programming language-neutral.

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

Delivery: This program is delivered hybrid (includes both face-to-face and online components).

COTR Credits: 4

Hours for this course: 80 hours

Typical Structure of Instructional Hours:

Instructional Activity	Duration
Lecture Hours	40
Seminars / Tutorials	
Laboratory / Studio Hours	40
Practicum / Field Experience	
Other Contact Hours	
Total	80

Practicum Hours (if applicable):

Type of Practicum	Duration
On-the-Job Experience	
Formal Work Experience	
Other	
Total	N/A

Course Outline Author or Contact:
Joy Brown, Department Head

Signature

APPROVAL SIGNATURES:

Department Head
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Department Head Signature

Dean of Trades and Technology
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Dean Signature

EDCO

Valid from: September 2024 – March 2029

Education Council Approval Date

COURSE PREREQUISITES AND TRANSFER CREDIT:

Prerequisites: Admission to the Computer Information Systems Technology Diploma Program

Corequisites: None

Flexible Assessment (FA):

Credit can be awarded for this course through FA ☑ Yes ☐ No

Learners may request formal recognition for flexible assessment at the College of the Rockies through one or more of the following processes: External Evaluation, Worksite Assessment, Demonstration, Standardized Test, Self-assessment, Interview, Products/Portfolio, Challenge Exam. Contact an Education Advisor for more information.

Transfer Credit: For transfer information within British Columbia, Alberta and other institutions, please visit http://www.cotr.bc.ca/Transfer.

Student should also contact an academic advisor at the institution where they want transfer credit.

Prior Course Number: N/A

Textbooks and Required 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:

TBD

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 the successful completion of this course, students will be able to

- explain programming principles and practices using programming terminology appropriately;
- describe processes involved in programming;
- develop programs using appropriate tools and styling conventions for adhering to best practices for code organization and readability;
- apply debugging tools to identify and rectify errors in programs;
- create programs that use a variety of techniques, including variables, input and output, decision statements, repetition structures, methods, objects and object-oriented techniques; and
- design reusable classes through simple inheritance and interfaces.

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 ASSESSMENT (Face-to-Face Delivery):

Assignments	% of Total Grade
Assignments (1 programming assignment per week, except 2 weeks of exams)	60%
Midterm Exam	20%
Final Exam	20%
Total	100%

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 POLICY:

Students must attend all required scheduled exams that make up a final grade at the appointed time and place.

Individual instructors may accommodate for illness or personal crisis. Additional accommodation will not be made unless a written request is sent to and approved by the appropriate Department Head prior to the schedules exam.

Any student who misses a scheduled exam without approval will be given a grade of "0" for the exam.

COURSE GRADE:

Course grades are assigned as follows:

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Mark (Percent)	≥ 90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	< 50

A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

ACADEMIC POLICIES:

See www.cotr.bc.ca/policies for general college policies related to course activities, including grade appeals, cheating and plagiarism.

COURSE CHANGES:

Information contained in course outlines is correct at the time of publication. Content of the courses is revised on an ongoing basis to ensure relevance to changing educational, employment and marketing needs. The instructor endeavours to provide notice of changes to students as soon as possible. The instructor reserves the right to add or delete material from courses.