



CIST-101 – Computer Systems Administration

Technology

Effective Term & Year: Fall 2024

Course Outline Review Date: 2029-03-01

Program Area: Information Technology

Description:

This course introduces students to the computer (PC) as a system, both hardware and software. Students learn PC hardware and peripheral components: their role, how to connect, install, configure, and troubleshoot issues. This also includes basic safety and operational procedures. For software, students will gain knowledge of the fundamentals of Operating Systems (OS). They will acquire the skills needed to install and configure desktop computers and other devices in a business environment. Topics include OS architecture, file and disk management, BIOS and UEFI, multi-boot, virtual machines, software installation/removal, performance tuning, backing up and protecting data, and troubleshooting. The basics of networking, security, virus protection, and firewalls are also covered. Students will be introduced to the basics of other major OS such as Linux and Apple's iOS. Theoretical knowledge will cover the Microsoft 70-698 Installing and Configuring Windows 10 course.

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

Flexible Assessment: Yes

Students are able to request formal recognition of their prior learning or experience outside the classroom. Challenge examination, portfolio-assisted assessment, or work-based assessment are used 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 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:

COMPTIA A+ Certification All-in-One Exam Guide, 11th Edition

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 the fundamentals of operating systems;
- install and configure desktop computers, their peripherals, operating systems (Windows, Apple, and Linux);
- practice the maintenance of hardware;
- configure security settings to safeguard systems and data;
- use recovery features to restore OS systems to a previous state;
- perform system, file, and disk management tasks, including the configuration of storage, data access, and efficient data organization;
- establish and manage a multi-boot system for diverse operating environments; and
- configure settings and services to enhance computer operations that optimize performance.

Course Topics:

- Computer hardware components
- Operational and safety procedures
- Operating system
- Operation system configuration
- Storage and data access
- Application management
- Security setting
- Linux desktop operating system
- Apple desktop operating system
- Computer network and firewall configuration

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 (x4)	40%
Midterm Exam	30%
Final Exam	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 outlin

