



WIST – Wireless Systems Technician Diploma

Technology

Effective Term & Year: Fall 2022

Program Outline Review Date: 2027-03-01

Program Area: Information Technology

Description:

Wireless Systems Technicians are trained to install, maintain and repair wired and wireless communications equipment. The program is designed to support comparable skill requirements for similar Internet of Things (IOT) and automation systems applications in mining, natural resources, and other sectors.

Students develop foundational skills required for more complex practical applications introduced later in the program. This includes a focus on electrical and electronics systems (AC, DC, circuits, and digital fundamentals). They then proceed to several levels of data networks (LANs, WANs, routers, switches) and allowing networks to scale. Upon completion of WIST 106 Introduction to Networks, WIST 107 Switching, Routing and Wireless Essentials and WIST 108 Enterprise Networking, Security and Automation, students are prepared to take the Cisco Certified Network Associate (CCNA) examination.

The program includes radio frequency concepts and practical applications for wireless environments as well as microwave communications. Radio frequency navigation and location tools and structured cabling systems are covered, culminating in applying the learned principles by configuring and testing real world systems, finding faults and advanced troubleshooting skills. Students must complete a final capstone project and apply wireless systems knowledge and skills to identify and research an industry problem and plan, implement, and test a field-based, real-world solution.

The Wireless Communications Technician program diploma is awarded to students completing the 60 credits of this program.

Program Information:

This 2-year full-time program provides the knowledge, skills, and training required to prepare students for a career as a Wireless Systems Technician.

Credentials Granted:

Wireless Systems Technician Diploma

Minimum Course Grade: A minimum grade of C-

Program Average: A minimum program grade point average of 3.0/10 (C average)

Progression Requirements:

Students are required to maintain a minimum 60% average in each term with a minimum mark of 55% in each course to continue to the next term. The program average of 60% is required to receive the Wireless Systems Technician program diploma.

Delivery Methods: Blended (Hybrid)

Credits: 60

Admission Requirements:

- Complete all of the following
 - Earned a minimum grade of C (60%) in each of the following:
 - [ENST 12](#) – English Studies 12
 - [ENFP 12](#) – English First Peoples 12
 - [ENGL090](#) – English – Provincial Level
 - For students for whom English is a second language, students must meet the Grade 12 English equivalency level posted on the College Admissions and Registration website. International students require a score of IELTS 6.0 or higher.
 - Earned a minimum grade of C (60%) in at least 1 of the following:
 - [FOM 11](#) – Foundations of Mathematics 11
 - [PREC 11](#) – Pre-Calculus 11
 - [CS 11](#) – Computer Science 11
 - [MATH080](#) – Mathematics – Advanced Level

Recommended Admission Requirements:

Physics 11, PHYS 080 or equivalent.

Program Completion Requirements:

Year 1

32 Total Credits

- Complete all of the following

Fall Semester

- Completed the following:
 - WIST101 – Technical Skills (4)
 - WIST102 – DC Fundamentals (4)
 - WIST103 – AC Fundamentals (4)

Winter Semester

- Completed the following:
 - WIST104 – Electronic Circuits (4)
 - WIST105 – Digital Fundamentals (4)
 - WIST106 – Introduction to Networks (4)
 - WIST107 – Switching, Routing, and Wireless Essentials (4)
 - WIST108 – Enterprise Networking, Security and Automation (4)

Year 2

28 Total Credits

- Complete all of the following

Fall Semester

- Completed the following:
 - WIST201 – Radio Frequency (RF) Principles (4)
 - WIST202 – Radio Frequency (RF) Transmission Lines and Antennas (3)
 - WIST203 – Internet of Things Fundamentals (4)

Winter Semester

- Completed the following:
 - WIST204 – Microwave Communications (3)
 - WIST205 – Structured Cabling Systems (4)
 - WIST206 – Radio Frequency (RF) Applications (4)
 - WIST290 – WIST Capstone Project (6)

Grand Total Credits: 60

Flexible Assessment: Yes

In some cases students may be able to apply for recognition of prior learning outside the classroom. This flexible assessment process provides equivalent course credit. It is a rigorous process that may include external evaluation, worksite assessment, demonstration,

standardized test, self-assessment, interview, products/portfolio, and challenge exam, or other measures as appropriate. Tuition fees apply. Contact an education advisor for more information.

Program Transfer Credit:

For information about block transfer agreements between programs in British Columbia, Alberta, and elsewhere, please visit <http://www.cotr.bc.ca/transfer>.

To minimize transfer issues, check with an academic advisor at the institution that will receive the transfer credits.

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 2.4.3 Students with Documented Disabilities
 - Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
 - Policy 2.5.8 Academic Performance
 - Policy 2.5.3 Grade Appeal
 - Policy 2.4.9 Student Concerns Re Faculty
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Program Changes:

Information contained in this program outline is correct at the time of publication. Courses and course content may be revised from time to time based on changing educational, employment and marketing needs. The timetable may also be revised.

Course Descriptions: Refer to Course Outlines – <https://outlines.cotr.bc.ca/course/>