COLLEGE OF
THE ROCKIES

WIST-290 – WIST Capstone Project

Technology

Effective Term & Year: Fall 2022
Course Outline Review Date: 2027-03-01

Program Area: Information Technology

Description:

This course enables students to 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 project will involve designing, building and testing their solution. Students present and demonstrate their project results, and prepare a final project report. The course integrates knowledge and skills gained from other courses in the program, and builds skills in problem solving, research, project planning and time management, and industry relevant presentation and writing skills.

Program Information:

This course is required for successful completion of the Wireless Systems Technician Diploma program.

Delivery Methods: On-campus (Face-to-Face)

Credit Type: College of the Rockies Credits

Credits: 6

Instructional Activity and Hours:

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

Laboratory/Studio	
Practicum/Field Experience	150
Co-op/Work Experience	
Other	
Total	180

Course Requisites:

- Completed the following:
    - WIST201 – Radio Frequency (RF) Principles (4)
    - WIST202 – Radio Frequency (RF) Transmission Lines and Antennas (3)
    - WIST203 – Internet of Things Fundamentals (4)
    - WIST204 – Microwave Communications (3)
    - WIST205 – Structured Cabling Systems (4)
    - WIST206 – Radio Frequency (RF) Applications (4)

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.

Course Transfer Credit:

For information about receiving transfer credit for courses taken at other BC institutions, please see http://www.bctransferguide.ca. All requests for course transfer credit from institutions in BC or elsewhere should go to the College of the Rockies Enrollment 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:

No textbook is assigned for this course.

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

- use needs assessment, appreciative inquiry and other strategies to identify and clarify a problem in wireless systems industry;
- research the problem and potential solutions applying knowledge and skills;
- conduct a literature search and review;
- write an effective proposal and project plan to address the problem;
- conduct the project applying effective time management skills;
- evaluate the effectiveness of the project;
- present and demonstrate the project using effective oral communication skills; and
- write a final project report describing the project methodology and discussing the effectiveness of the solution and opportunities for further development or application.

Course Topics:

- Problem clarifying strategies related to research
- Proposal writing
- Project planning and time management
- Research skills/literature review
- Presentation skills
- Report writing

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
Project proposal	20%
Oral presentation	20%
Technical evaluation	40%
Final report	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

Pass requirements: None

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 2.4.3 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

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.