

DEPARTMENT OF SCIENCE

COURSE OUTLINE – winter 2025

CS4996 – Capstone Project - 3 (1.5-0-0) 1.5 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land, and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

COURSE CAPTAIN: Franco Carlacci

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OFFICE HOURS: TBA

CALENDAR DESCRIPTION:

The purpose of this course is to gain some understanding of how modern software is developed and deployed. Students will work in small (2 or 3 members) teams or solo under special circumstances, to complete a project of their own choosing. These projects must first be vetted and receive approval from the instructor. Student teams will be expected to successfully navigate their project through all phases of the software lifecycle. Reports and presentations will be expected at various stages of the project development.

PREREQUISITE(S)/COREQUISITE: Successful completion of third year required.

REQUIRED TEXT/RESOURCE MATERIALS:

Course materials will be specific to the project selected.

DELIVERY Mode: Onsite face-to-face.

LEARNING OUTCOMES:

By the end of this course, students will be able to:

1. Integrate the knowledge and skills learnt in previous courses towards solving a concrete problem.
2. Develop time management, organizational and problem-solving skills.
3. Use analytical and communication skills to trouble shoot problems as they arise.
4. Communicate effectively both orally and in writing.
5. Work as an effective member of a team or with the project supervisor when working on a solo project.

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page <http://www.transferalberta.ca>.

Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.**

EVALUATION:

Initial project proposal	:	5 %
Presentation updates	:	10 %
Project Implementation	:	50 %
Project presentation	:	15 %
Project report	:	20 %

GRADING CRITERIA:

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100		C+	2.3	67-69
A	4.0	85-94		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

The first couple of weeks of the class will be devoted to clarification of complete project requirements and deliverables. Students will make presentations of their purposed project to the class and listen to feedback and suggestions.

After the initial proposals are presented and reviewed, each student team will develop and present a timeline for expected completion of each phase of their project (analysis and design, prototyping and development, testing and deployment).

Teams will be required to periodically present project updates throughout the semester.

During the final two weeks of classes, students will be required to deliver a formal presentation of their overall project as well as a live demonstration of the project. After the presentation students will submit their final report.

STUDENT RESPONSIBILITIES:

- The student must complete an appropriate share of the project requirements and contribute equally to the overall team project management.
- teams will be responsible for delivering project updates and presentations as required
- Attendance is mandatory

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at <https://www.nwpolytech.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.nwpolytech.ca/about/administration/policies/index.html>

**Note: all Academic and Administrative policies are available on the same page.