

DEPARTMENT OF SCIENCE

COURSE OUTLINE – Fall 2026

CT1010 (A2): Operating Systems Installation and Maintenance – 3 (6-0-0)

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.

INSTRUCTOR:	Matthew Martin	PHONE:	(780) 539-2952
OFFICE:	E401	E-MAIL:	mamartin@nwpolytech.ca
OFFICE HOURS:	Tuesday, 12:00 PM – 2:00 PM		

CALENDAR DESCRIPTION:

An introduction to the understanding and manipulation of various settings of operating systems in relation to hardware and software. Focus is on the configuration and installation of operating systems to achieve system optimization skills.

PREREQUISITE:

None

RESOURCE MATERIALS:

Mike Meyers, Travis A. Everett, and Andrew Hutz. *Mike Meyers' CompTIA A+ Guide to Managing and Troubleshooting PCs*. 7th ed. McGraw Hill, 2023. ISBN: 9781264712748.

DELIVERY MODE(S):

- Lectures: A2

Monday	8:30 AM – 10:20 AM	B201
Wednesday	8:30 AM – 10:20 AM	B201

LEARNING OUTCOMES:

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



1. Install and configure operating systems using appropriate installation media, storage and partitioning options, hardware and software requirements, device drivers, and post-installation configuration procedures.
2. Configure and administer common operating system settings and utilities, including system services, startup processes, applications, system configuration tools, and other administrative features.
3. Create and manage user accounts, groups, permissions, and access controls to provide appropriate authentication, authorization, and protection of system resources.
4. Configure operating systems to support installed hardware and software, including device drivers, applications, system resources, and other settings affecting compatibility and performance.
5. Perform routine operating system maintenance and optimization, including software and operating system updates, storage management, scheduled maintenance, startup management, performance monitoring, and backup procedures.
6. Diagnose and resolve common operating system, application, startup, boot, and performance problems using systematic troubleshooting methods, diagnostic utilities, and operating system recovery tools.
7. Apply appropriate security, recovery, and operational practices when administering and maintaining computer systems, including least-privilege access, system updates, malware protection, backup and recovery, documentation, and change-management practices.

TRANSFERABILITY:

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

**** For courses with alpha (letter) grading, a 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.**

EVALUATIONS:

Quizzes	30 %
Midterm Exam	30 %
Final Exam	40 %
Total	100 %

GRADING CRITERIA:

Please note that most institutions will not accept your course for transfer credit **IF** your grade is **less than C-**.

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:

Last updated Sept 1st, 2026.

Lecture / Lab	Week	Topic / Assignment
Lecture 1	Sept 2 nd – Sept 4 th	Course Introduction; Operating System Fundamentals
Lecture 2	Sept 7 th – Sept 11 th	OS Installation and Initial Configuration
Lecture 3	Sept 14 th – Sept 18 th	Working with OS and Administrative Tools
Lecture 4	Sept 21 st – Sept 25 th	Users, Groups, Permissions, and System Security
		Midterm Exam
Lecture 5	Sept 28 th – Oct 2 nd	Operating System Maintenance and Optimization
Lecture 6	Oct 5 th – Oct 9 th	Operating System Troubleshooting and Recovery
Lecture 7	Oct 12 th – Oct 16 th	System Security and Support Procedures

1. Students are expected to attend scheduled classes regularly and to arrive prepared to participate in scheduled course activities.
2. Students are responsible for keeping up with course materials, announcements, assigned readings, deadlines, and any work missed due to absence.
3. Coursework and assessments must be completed and submitted by the stated deadline. **Incomplete or late assignments will not normally be accepted.** Extenuating circumstances must be discussed with the instructor as soon as reasonably possible.
4. If a student is unable to attend a scheduled quiz, lab, examination, or other graded activity, they are expected to contact the instructor in advance whenever possible. Missed assessments or activities may be rescheduled at the instructor's discretion depending on the circumstances.
5. Students are expected to complete their work honestly and in accordance with Northwestern Polytechnic's policies regarding academic integrity and academic misconduct.
6. Students are expected to conduct themselves respectfully and professionally when interacting with classmates, instructors, and other members of the Polytechnic.
7. Students are responsible for seeking clarification or assistance when course requirements, concepts, assignments, or expectations are unclear.

STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available <https://www.nwpolytech.ca/about/polytechnic-leadership/policies-directory>.

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