

DEPARTMENT Of Science

COURSE OUTLINE – Fall 2025

**CS2210 (A2): Introduction to PC Hardware and Systems Configuration – 3 (2-0-2) UT**

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:** Dr. Mohamed Elgamal      **PHONE:** 780-539-2976  
**OFFICE:** C306      **E-MAIL:** melgamal@nwpolytech.ca  
**OFFICE HOURS:** TW 12:00-13:30 (by appointment)

#### CALENDAR DESCRIPTION:

This course introduces the fundamentals of PC hardware. Students will open up machines, install devices such as hard drives, I/O cards, video cards as well as memory, CD/DVD ROM drives, install operating systems, explore a variety of different software packages, attach communications equipment and supporting software. Topics include system hardware (e.g., motherboards, processors, storage devices, memory), device drivers, operating systems (e.g., Windows, Linux), troubleshooting and maintenance of LAN (Local Area Network)-based PC, etc.

#### PREREQUISITE(S)/COREQUISITE:

None

#### REQUIRED TEXT/RESOURCE MATERIALS:

- The required textbook is CompTIA A+ Guide to IT technical Support 11th Edition, Jean Andrews, Joy Dark, Nicholas Pierce.
- Other resources will also be available on BrightSpace.

DELIVERY MODE(S): In-Person, On-Campus

This course includes 3-hours of lecture per week and a 3-hour lab per week.

|                  |      |   |              |
|------------------|------|---|--------------|
| <b>Lectures:</b> | J202 | F | 8:30 – 10:20 |
| <b>Lab: L1</b>   | G110 | T | 2:30 – 4:20  |

## LEARNING OUTCOMES:

- Students will be able to identify the major components of a computer system.
- Students will be able to assemble and disassemble a computer system.
- Students will be able to install various operating systems on a computer system.
- Student will be able to connect their computer system to a computer network.

## TRANSFERABILITY:

- Athabasca University.
- King's University College.

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.alberta.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.**

## EVALUATIONS:

Your final grade will be determined in the following manner:

|                  |     |
|------------------|-----|
| Lab Assignments  | 45% |
| Midterm Test I   | 10% |
| Midterm Test II  | 10% |
| Midterm Test III | 10% |
| Final Exam       | 25% |

Please note that most universities will not accept your course for transfer credit IF your grade is less than C-. Grading Chart:

| 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:

|         |                        |
|---------|------------------------|
| Week 1  | Introduction           |
| Week 2  | Chapter 1              |
| Week 3  | Chapter 2              |
| Week 4  | Chapter 3              |
| Week 5  | Chapter 4              |
| Week 6  | Midterm I              |
| Week 7  | Chapter 5              |
| Week 8  | Chapter 6              |
| Week 9  | Chapter 7              |
| Week 10 | Midterm II             |
| Week 11 | Fall Break, No classes |
| Week 12 | Chapter 8              |
| Week 13 | Chapter 9              |
| Week 14 | Midterm III            |

## STUDENT RESPONSIBILITIES:

- Students should arrive on time for classes and labs (no later than 10 min).
- If students are consistently late, they may be barred from attending future classes.
- Students' attendance will be recorded.
- Students are responsible for all lecture materials, labs and readings.
- It is the student's responsibility to adhere to ALL course requirements.
- The students are expected to finish the assignments during the lab sessions.
- The students should not leave the lab without demonstrating their work to the instructor and signing up in the attendance sheet.
- Assignments must be submitted on their due date by the end of the labs.
- Late assignments will NOT be accepted and will receive a grade of 0 (unless a permission is granted).
- The use of AI is not allowed and considered an academic misconduct.
- No use of cellphones during classes and labs.
- Cellphones are banned during quizzes and exams.
- In case of illness, a doctor's note should be provided.
- If the final is missed due to illness it will be deferred.
- For the lab assignments, students will work on teams and each team will be asked to create a website that documents all the activities that they performed for each lab.
- Marks for the lab assignments will be divided as follows: 20% for attending and working the labs, 15% for doing the pages for each lab, and 10% for the final integrated lab website.

## 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 at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

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

## Additional Information:

- The evaluation of this course is divided into two parts: lab/programming part (assignments, practical quizzes, practical exams, etc.) and theoretical part.
- For passing this course, the students **MUST** pass in the lab/programming part (%50 at least) and **MUST** also pass the theoretical part as well (%50 at least).