



Personal Computers and Networks

Course Information

Course Number: APCO/IASC 2P11

Term/Year/Duration: winter 2023/24

Instructor Information

Instructor Name: Earl Foxwell

Office: MCD413

Contact: efoxwell@brocku.ca

Times and Locations

Wednesdays, 2pm, WH206

Labs are scheduled per enrolled section

All lectures are delivered synchronously, in-person.

A Student may make or share an audio or video recording of a lecture, presentation, or lesson, only with the permission of the instructor.

Labs are conducted *solely* during the regularly scheduled lab times.

Course Calendar Description

Inner workings of modern computers from a user's point of view. Understanding the hardware, network and system software. Topics include CPUs, memory, video, input/output, networks, security, installation of operating systems and hands-on trouble shooting.

Learning Outcomes:

- Troubleshooting common problems
- Preventative maintenance
- Using software tools for common problems like partitioning and data recovery
- Understanding networking and basic security
- Understanding general computing technologies

Course Communications

All communication is delivered via Brightspace announcement and/or email. Students are expected to check both routinely, as anything posted to either may be deemed ‘read’. This includes announcements in the event of class cancellations and inclement weather; but also postings, amendments to assessments, etc.

Note that this includes notification of the scheduling of the tests and start of labs, so you need to actually read them!

When emailing your instructor, include the name of the course in the **Subject** line. All correspondence must be from your student (Brock) email address.

Note: never, ever email your instructor computer-generated nonsense.

Assessment Components

Assessment Component	Grade Weight
Labs (×9)	27%
Tests (×2)	20%
Final lab test	20%
Final exam	33%
Total	100%

Additional requirements

- Students may not miss more than *one* lab and still qualify for a credit in this course
 - The reason does not matter, and there is no substitute possible
 - When this rule must be applied, students will be immediately removed from the lab, as well as the Brightspace page
- At least 40% must be earned on the final exam to qualify for a credit in this course
- These rules are essential both pedagogically and for safety, and thus are not negotiable

Important dates for Winter 2023 (D3)

The most recent listing of Important Dates for all durations is at <https://brocku.ca/important-dates/all/>

First day of classes: 8 January

Last day of lectures: 5 April

Snow/Reading days: 9 April

Reading Week: 19 - 23 February

Exams: 10 - 23 April

Deadline for withdrawal without academic penalty: 8 March

Academic Policies

Academic Integrity

Statement for undergraduate courses

Academic misconduct is a serious offence. The principle of academic integrity, particularly of doing one's own work, documenting properly (including use of quotation marks, appropriate paraphrasing and referencing/citation), collaborating appropriately, and avoiding misrepresentation, is a core principle in university study. Students should consult Section VII, "Academic Misconduct", in the "Academic Regulations and University Policies" entry in the [Undergraduate Calendar](#) to view a fuller description of prohibited actions, and the procedures and penalties. Information on what constitutes academic integrity is available at [Brock University Academic Integrity Website](#).

Plagiarism detection software:

This course may use phrase-matching software, or additional tools and scripts to assist with detection of academic misconduct. There is **no** opt-out, nor alternative provided.

Penalties for Academic Misconduct in the Faculty of Mathematics and Science

The following are penalties usually imposed in academic misconduct cases in FMS. Please be aware that the Associate Dean, Undergraduate Programs, may assign different penalties than those listed here, depending on the details of individual cases.

First offence: Zero grade on assignment, additional penalty of 100% of the weight of the assignment to be subtracted from the final grade, mandatory completion of the AZLS Academic Integrity workshop

Second offence: Zero grade on assignment, 4-month suspension

Third or additional offence: Zero grade in course, 1-year suspension, permanent removal from major program.

Cheating on exams: Zero grade in course, including for first offenses.

Intellectual Property Notice

All slides, presentations, handouts, tests, exams, and other course materials created by the instructor in this course are the intellectual property of the instructor. A student who publicly posts or sells an instructor's work, without the instructor's express consent, may be charged with misconduct under Brock's Academic Integrity Policy and/or Code of Conduct, and may also face adverse legal consequences for infringement of intellectual property rights.

Additionally, separate from any misconduct issues, for any instance of uploading/distributing Brock materials, Brightspace access will be **immediately** revoked, as an abuse of computing resources. There is no appeals process for this.

Accommodations

The University is committed to fostering an inclusive and supportive environment for all students and will adhere to the Human Rights principles that ensure respect for dignity, individualized accommodation, inclusion and full participation. The University provides a wide range of resources to assist students, as follows:

- a) If you require academic accommodation because of a disability or an ongoing health or mental health condition, please contact Student Accessibility Services at askSAS@brocku.ca or 905 688 5550 ext. 3240.

- b) **Medical Self-Declaration Forms (brief absence up to 72 hours)**

In the case of a short-term medical circumstance, if a student wishes to seek an academic consideration, please use the [Medical Self-Declaration Form](#). The request is to be made in good faith by the student requesting the academic consideration due to a short-term condition that impacts their academic activities (e.g., participation in academic classes, delay in assignments, etc.).

The period of this short-term medical condition for academic consideration must fall within a 72-hour (3 day) period. The form must be submitted to the instructor either during your brief absence or if you are too unwell, within 24 hours of the end of your 3 day brief absence.

Medical Verification Form (extended duration)

In cases where a student requests academic consideration due to a medical circumstance that exceeds 72 hours (three days) and will impact their academic activities (e.g., participation in academic classes, delay in assignments, etc.), or in the case of a final exam deferral, the [medical verification form](#) must be signed by the student and the health professional as per process set out in the [Faculty Handbook III:9.4.1](#).

- c) If you are experiencing mental health concerns, contact the Student Wellness and Accessibility Centre. *Good2Talk* is a service specifically for post-secondary students, available 24/7, 365 days a year, and provides anonymous assistance: [Good 2 Talk](#) or call **1-866-925-5454**. For information on wellness, coping and resiliency, visit: [Brock University \(Mental Health\)](#)
- d) If you require academic accommodation on religious grounds, you should make a formal, written request to your instructor(s) for alternative dates and/or means of satisfying requirements. Such requests should be made during the first two weeks of any given academic term, or as soon as possible after a need for accommodation is known to exist.
- e) If you have been affected by sexual violence, the Human Rights & Equity Office offers support, information, reasonable accommodations, and resources

through the Sexual Violence Support & Education Coordinator. For information on sexual violence, visit [Brock's Sexual Assault and Harassment Policy](#) or contact the Sexual Violence Support & Response Coordinator at humanrights@brocku.ca or 905 688 5550 ext. 4387.

- f) If you have experienced discrimination or harassment on any of the above grounds, including racial, gender or other forms of discrimination, contact the Human Rights and Equity Office at humanrights@brocku.ca.
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List of topics

1. Introduction / overview
2. System resources, boot sequence, BIOS, external/internal power
3. Electrical supply and power
4. CPUs and chip sets
5. Instruction sets, CPU architecture
6. System architecture
7. Internal bus architecture
8. Memory, storage interfaces, drives
9. External bus systems
10. Networking
11. Registry and drivers