# CPS 209: Computer Science II

**Winter 2024**

## Instructor Information

* **Instructors:**  T. McInerney (Sections 1-6) (Course Coordinator)

R. Valenzano (Sections 7-13)

* **Office Location:** McInerney ENG262, Valenzano AOB1260
* **Office Hours:** McInerney: Wed 1pm-3pm or by appointment
* Valenzano: TBD
* **Course Website:** my.torontomu.ca (D2L)
* **Email Address:**   tmcinerney@torontomu.ca rick.valenzano@torontomu.ca

### Email Policy

In accordance with the Policy on TMU Student E-mail Accounts (Policy 157), Toronto Metropolitan University (TMU) requires that any electronic communication by students to TMU faculty or staff be sent from their official university email account.

## Course Description

A continuation of CPS 109. Emphasis is placed on code structure, algorithm development, and Object-Oriented design principles.

Weekly Contact: Lab:2 hrs. Lecture:3 hrs.

## Course Details

### Teaching Methods

In-person lectures, course slides (PDF) posted weekly, weekly labs, 2 programming assignments.

### Course Materials

Big Java Late Objects by Cay Horstmann, Wiley. 1st or 2nd edition: ISBN: 978-1-118-08788-6,

### Course Learning Outcomes

At the end of the course, a successful student will be able to:

1. Understand basic principles and concepts of object-oriented programming (using Java) and basic data structures

2. Write modern computer programs using Java

### Topics and Course Schedule

### (Note: dates are approximate, some topics may be omitted due to time constraints)

|  |  |  |
| --- | --- | --- |
| Week | Date | Topic |
| Week 1 | Jan 15 | * Java Basics, Java vs Python, introduction to the Wizard program |
| Week 2 | Jan 22 | * Java Basics continued, Intro to Strings, Arrays, and ArrayLists |
| Week 3 | Jan 29 | * Strings, Arrays and ArrayLists |
| Week 4 | Feb 5 | * Objects and Classes, Ch 8 |
| Week 5 | Feb 12 | * Objects and Classes, Ch 8 continued |
|  | Feb 19 | * Study Week – No Lectures |
| Week 6 | Feb 26 | * Inheritance and Polymorphism, Ch 9.1 to 9.5 |
| Week 7 | Mar 4 | * Interfaces and Polymorphism (Ch 9.6) |
| Week 8 | Mar 11 | * File Input/Output and Exception Handling, Ch 7 |
| Week 9 | Mar 18 | * Java Collections: Lists, Stacks, Queues, Ch 15 |
| Week 10 | Mar 25 | * Java Collections: Sets and Maps, Ch 15 |
| Week 11 | Apr 1 | * TBA |
| Week 12 | Apr 8 | * TBA |

### Evaluation and Grading Requirements

* Students must obtain a total of 50% of the total the midterm and final exam marks (i.e. 50% of 70 marks) to be eligible to pass the course.
* Students must obtain at least 50% of the lab marks (i.e. 50% of 10 marks) to be eligible to pass the course. See Labs explanation below for other lab requirements.
* Students must obtain at least 50% of the total of Assignment 1 and Assignment 2 marks (i.e. 50% of 20 marks) to be eligible to pass the course.
* Rationale: If a student achieved a perfect score on the lab and programming assignments (i.e. 30 marks) then without any conditions, the student would need to score only ~30% on the midterms and final exam to pass the course. This total test score (30%) is deemed insufficient for demonstrating a basic understanding of the course concepts. Hence, the requirement of 50% for the exam score.
* Students are responsible for checking the D2L course web site for all instructions and announcements related to the course. All marks will be posted on D2L.
* Late programming assignments will be assigned a lateness penalty, penalized at the rate of 10% per day and will not be accepted if more than 3 days late.
* The usage of generative AI tools like ChatGPT and GitHub CoPilot are strictly prohibited as described in the University policies here: <https://www.torontomu.ca/centre-for-excellence-in-learning-and-teaching/teaching-resources1/generative-artificial-intelligence/>.
* Note that students are allowed to use single token text completion functionalities as given by IDEs.

### Assessment Weighting Breakdown

|  |  |  |
| --- | --- | --- |
| Evaluation Component | Percentage of Final Grade | Date (Approximate) |
| Labs | 10 | Posted Weekly |
| Assignment 1 | 10 | Posted Feb 18\* |
| Assignment 2 | 10 | Posted Mar 18\* |
| Midterm Test | 25 | Week of March 10, During Lab session |
| Final Exam | 45 | Exam Week |
| Total: | 100% |  |

* \*Dates for assignment 1 and 2 and the midterm are tentative and may change.
* Results for the midterm and the assignments will be returned within 3 weeks of due date.

### Labs

Labs start during the week of **Jan. 22th**. There will be approximately 10 lab sessions during which a student will go over programming examples with the TA and work on lab assignment programming problems. Lab assignment programming problems are typically posted at the beginning of the week and are due at the end of the week. These problems can be worked on at home and students are encouraged to also work on them during a lab session. Students are also encouraged to seek help from the TAs if they do not understand a lab problem, a programming example or a lecture concept.

**During a lab session** **in the lab room**, the students will also write solutions to small programming problems (approximately 2 problems). The solutions are to be submitted to D2L by the end of the lab session. D2L. These **in-lab** problems are worth 50% of that week’s lab and the **homework** lab problems are worth the remaining 50%.

Also during the lab session, the TAs will go over one of the lab homework problems with the students (i.e. you will solve it with the TA).

Solutions will be posted for all labs before the midterm test and before the final exam.

**University Policies**

Students must be reminded that they are required to adhere to all relevant university policies found in their online course shell in D2L and/or on [the Senate website](http://ryerson.ca/senate/course-outline-policies).

**Important Resources Available at Toronto Metropolitan University**

* [The Library](https://library.torontomu.ca/) provides research [workshops](https://library.torontomu.ca/workshops/) and individual assistance. If the University is open, there is a Research Help desk on the second floor of the library, or students can use the [Library's virtual research help service](https://library.torontomu.ca/ask/) to speak with a librarian.
* [Student Life and Learning Support](https://www.torontomu.ca/student-life-and-learning/learning-support/) offers group-based and individual help with writing, math, study skills, and transition support, as well as [resources and checklists to support students as online learners.](http://torontomu.ca/student-life-and-learning/learning-support/resources/)
* You can submit an [Academic Consideration Request](https://prod.apps.ccs.torontomu.ca/senateapps/acadconsform) when an extenuating circumstance has occurred that has significantly impacted your ability to fulfill an academic requirement. You may always visit the [Senate website](https://www.torontomu.ca/senate/) and select the blue radio button on the top right hand side entitled: Academic Consideration Request (ACR) to submit this request.  
    
  *For Extenuating Circumstances, Policy 167: Academic Consideration allows for a once per semester ACR request without supporting documentation if the absence is less than 3 days in duration and is not for a final exam/final assessment. Absences more than 3 days in duration and those that involve a final exam/final assessment, require documentation. Students must notify their instructor once a request for academic consideration is submitted. See Senate*[*Policy 167: Academic Consideration.*](https://www.torontomu.ca/senate/policies/academic-consideration-policy-167/)
* In the event that a missed evaluation is the final exam, students are required, in addition to the [Academic Consideration Request](https://prod.apps.ccs.torontomu.ca/senateapps/acadconsform), to petition for an INC grade with the [Incomplete Grade Request Form](https://www.torontomu.ca/content/dam/registrar/pdfs/INCGradeForm.pdf). To be allowed to write the makeup exam, you will need that form and a verified Academic Consideration Request.
* Information on Copyright for [Faculty](https://library.torontomu.ca/copyright/faculty/copyright-faqs/my-teaching-materials-have-been-posted-online/) and [students.](https://library.torontomu.ca/copyright/copyright-for-students/students-course-sharing-websites-and-file-sharing/)

**Accessibility**

* Toronto Metropolitan University is committed to providing accessible learning and employment spaces for students, employees, and members of our community. Explore our accessibility goals, vision, and how you can contribute to a barrier-free campus. Feedback regarding the accessibility of Toronto Metropolitan’s goods and services can be addressed to Access Toronto Metropolitan by phone at 416-979-5000, ext. 4144, by email at [accessibility@torontomu.ca](mailto:accessibility@torontomu.ca), or in person or in writing at the following address.

Access Toronto Metropolitan  
Toronto Metropolitan University  
Jorgenson Hall, Room 1110  
350 Victoria Street,  
Toronto, ON M5B 2K3

**Academic Accommodation Support**

Academic Accommodation Support (AAS) is the university's disability services office. AAS works directly with incoming and returning students looking for help with their academic accommodations. AAS works with any student who requires academic accommodation regardless of program or course load.

* Learn more about Academic Accommodation Support
* Learn [how to register with AAS](https://www.ryerson.ca/accommodations/registration/)

Academic Accommodations (for students with disabilities) and Academic Consideration (for students faced with extenuating circumstances that can include short-term health issues) are governed by two different university policies. Learn more about [Academic Accommodations versus Academic Consideration](https://www.torontomu.ca/accommodations/manage/aas_vs_acr/) and how to access each.

**Wellbeing Support**

At Toronto Metropolitan University (TMU), we recognize that things can come up throughout the term that may interfere with a student’s ability to succeed in their coursework. These circumstances are outside of one’s control and can have a serious impact on physical and mental well-being. Seeking help can be a challenge, especially in those times of crisis.

If you are experiencing a mental health crisis, please call 911 and go to the nearest hospital emergency room. You can also access these outside resources at anytime:

* Distress Line: 24/7 line for if you are in crisis, feeling suicidal or in need of emotional support (phone: 416–408–4357)
* Good2Talk: 24/7-hour line for postsecondary students (phone: 1-866-925-5454)
* Keep.meSAFE: 24/7 access to confidential support through counsellors via [My SSP app](https://myssp.app/ca/home) or 1-844-451-9700

If non-crisis support is needed, you can access these campus resources:

* Centre for Student Development and Counselling: 416-979-5195 or email [csdc@torontomu.ca](mailto:csdc@torontomu.ca%20)
* Consent Comes First – Office of Sexual Violence Support and Education: 416-919-5000 ext: 553596 or email [osvse@torontomu.ca](mailto:osvse@ryerson.ca)
* Medical Centre: call (416) 979-5070 to book an appointment

We encourage all Toronto Metropolitan University community members to access available resources to ensure support is reachable. You can find more resources available through the [Toronto Metropolitan University Mental Health and Wellbeing](https://www.ryerson.ca/mental-health-wellbeing/) website.