

COURSE SYLLABUS
ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Lassonde School of Engineering
Electrical Engineering and Computer Science

LE / EECS 1720 3.0 Section M
BUILDING INTERACTIVE SYSTEMS
Winter 2023

Course Title:	EECS 1720: Building Interactive Systems
Term:	Winter 2023
Lectures:	<p>Tuesday: 2:30pm – 4:00pm, VH A (in-person)</p> <p>Thursday: 2:30pm – 4:00pm, Zoom/LAS-B* (virtual/hybrid)</p> <p>* <i>Lectures streamed/recorded via zoom:</i></p> <p style="padding-left: 40px;">Zoom: https://yorku.zoom.us/j/98286340595</p> <p style="padding-left: 40px;">Meeting ID: 982 8634 0595</p>
Laboratories:	<p>Lab 1: Wed 12:30am–2:00pm (WSC 105)</p> <p>Lab 2: Wed 12:30am–2:00pm (WSC 106)</p> <p>Lab 3: Wed 12:30am–2:00pm m (WSC 108)</p> <p>Lab 4: Wed 12:30am–2:00pm (LAS1002 -> go to WSC 106)</p> <p>Lab 5: Wed 12:30am–2:00pm (LAS1002B -> go to WSC 108)</p> <p>* <i>accommodation students attend labtests in LAS1002/ 1002B</i></p> <p>No lab week 1, labs supervised from week 2: Jan. 18)</p>
Term Dates:	<p>Jan 9, 2023 – Apr 10, 2023</p> <p>Study Day (Apr 11, 2023), Exam Period (Apr 12 – Apr 27, 2023)</p>
Last Day to Add:	Jan 22, 2023 (without permission); Feb 6, 2023 (with)
Last Day to Drop:	Mar 17, 2023 (no grade); Mar 18–Apr 10, 2023 ('W' on transcript)
Instructor:	<p>Dr. Matthew Kyan</p> <p>Phone: (416) 736-2100 ext. 33965</p> <p>Email: mkyan [at] yorku [dot] ca</p> <p>Web: https://lassonde.yorku.ca/users/mkyan</p>
Office Hours:	<p>Wednesday 2pm-3pm (in-person in WSC105 +/- ZOOM via appt)</p> <p>Location: WSC 105 (immediately following lab session)</p> <p style="padding-left: 40px;">Zoom: https://yorku.zoom.us/j/96128552701</p> <p style="padding-left: 40px;">Meeting ID: 961 2855 2701</p> <p style="padding-left: 40px;">** or independently by appointment (ZOOM)</p>
TAs:	<p>Xuchen Tan, Yu Yuan, Harrish Thasarathan</p> <p>Fereshteh Forghani, Shreejal Trivedi, Shadikur Rahman</p>
Course Website:	Hosted on eClass (https://eclass.yorku.ca/)

COURSE CALENDAR DESCRIPTION

A second course teaching more advanced programming concepts within the context of image, sound and interaction using an object-oriented language. Introduction to interactive systems, user interfaces, event-driven programming, object design and inheritance. Implementation using debuggers, integrated development environments, user interface builders. One term. Three credits.

Pre-requisites: LE/EECS 1710 3.00.

Course credit exclusions: LE/EECS 1020 3.00, LE/EECS 1022 3.00, AP/ITEC 1620 3.00. PRIOR TO FALL 2014: course credit exclusions: LE/CSE 1020 3.00. PRIOR TO SUMMER 2013: course credit exclusions: SC/CSE 1020 3.00.

COURSE LEARNING OBJECTIVES

By the end of the course you will be able to:

- Understand class components, access/encapsulation & basic UML representations
- Understand and use classes that involve complex aggregations/inheritance relationships
- Use and create 2D Graphics
- Understand Exception and Error mechanisms in Java
- Design applications that incorporate Exception Handling
- Understand and leverage class associations, inheritance & interfaces
- Understand and leverage polymorphism
- Understand and leverage simple containers/collections
- Understand and design basic GUI applications
- Understand and design applications that use events and event handlers
- Understand and design applications that use simple threads

TEXTBOOK(S)

Required Text:

- There is NO required textbook for this course.
- All necessary materials, notes and online resources will be provided (as needed)

Other Texts/Reference Materials:

- K. Sierra and B. Bates, “Head First Java: A Brain-Friendly Guide”. ISBN-13: 978-0596009205
- R. Sedgewick and K. Wayne, “Introduction to Programming in Java” Second Edition. ISBN-13: 978-0672337840.
- M. Guzdial and B. Eriscon, “Introduction to Computing & Programming with JAVA - A Multimedia Approach”, ISBN 0-13-149698-0

- R. Sedgewick and K. Wayne, “Computer Science – An Interdisciplinary Approach”; ISBN-13: 978-0-13-407642-3; Addison-Wesley, 2017.
- "Absolute Java" (5th Edition or higher) by Savitch. available in Steacie Library.
- "Java Pocket Guide" by Liguori
- "Eclipse IDE Pocket Guide" by Burnette might be useful as well.

COURSE SCHEDULE:

Week	Topics	Dates	Activity
1	Course Introduction	Jan 9-13	Lab 0 (on own)
2	Java Classes/Objects	Jan 16-20	Lab 1 (5%)
3	Java Classes/Objects; Exceptions & Exception Handling	Jan 23-27 Jan 24	Lab 2 (5%) Lab 1 due (11:59pm)
4	Encapsulation & Class Relationships	Jan 30 - Feb 3 Jan 31	Lab 3 (5%) Lab 2 due (11:59pm)
5	Class Hierarchies & Polymorphism	Feb 6-10 Feb 7	Assignment 1 (5%) Lab 3 due (11:59pm)
6	User Interfaces	Feb 13-17 Feb 15 Feb 17 (11:59pm)	LabTest #1 (15%) Feb 15, 12:30pm (in WSC 105/106/108) Assignment 1 due
	WINTER READING WEEK	Feb 20-24	
7	User Interfaces	Feb 27 – Mar 3	Lab 4 (5%)
8	Event Driven Programming	Mar 6-10 Mar 7	Lab 5 (5%) Lab 4 due (11:59pm)
9	Event Driven Programming	Mar 13-17 Mar 14	Lab 6 (5%) Lab 5 due (11:59pm)
10	Threads & Animation	Mar 20-24 Mar 21 Mar 22	Lab 6 due (11:59pm) LabTest #2 (15%) Feb 14, 12:30pm (in WSC 105/106/108)
11	Threads & Animation	Mar 27-31	Assignment 2 (5%)
12	Course Review	Apr 3 – 7 Apr 5 Apr 7 (11:59pm)	Endterm Test (30%) Apr 5, 12:30pm-2pm (in WSC 105/106/108) Assignment 2 due
	Exam Period	Apr 12-27	(no final)

COURSE EVALUATION:

Assessment	Weight	When
Labs (6 total)	30%	Weeks 1-10 (during regular lab time - due 1 week following) Labs 1-6 (worth 5% each)
Assignments (2 total)	10%	Assignments 1-2 (worth 5% each)
Lab Tests	30%	Labtest 1 (week 6 – Feb 15, 12:30-2pm – 15%), Labtest 2 (week 10 – Mar 22, 12:30-2pm – 15%) all labtests held in WSC105/106/108; or for students with accommodations (LAS1002/1002B)
Endterm Exam	30%	Endterm (week 12 – Apr 5, 12:30-2pm – 30%) Endterm exam held in WSC105/106/108; or for students with accommodations (LAS1002/1002B)

Labs are graded for correctness and style convention.

All labtests are held in the WSC/LAS labs during your regularly scheduled lab session (see above for dates). Each lab tests will include both programming (10%) and written (5%) questions, all of which are submitted electronically.

The final grade is obtained by adding the scores of the labs, labtests, assignments and endterm exam and converting this score to a letter grade using the table below:

Score	Grade
≥90	A+
≥80	A
≥75	B+
≥70	B
≥65	C+
≥60	C
≥55	D+
≥50	D
≥40	E
<40	F

COURSE POLICIES

Missed Tests, Labs or Project Submissions:

The student must notify their instructor as soon as is reasonably possible if the student misses an assignment due date. Only students with a documented reason for missing a due date, such as illness, compassionate grounds, etc., will be considered for some sort of accommodation.

Labtest/Endterm Exams

Tests and projects will cover/make use of content from both lectures and lab materials.

Tests are closed-book. Crib sheets, calculators and electronic dictionaries are NOT allowed unless otherwise stated. Use of unauthorized aids will yield a grade of zero and academic misconduct charges (see below)s

Contact:

Critical correspondence to students is emailed to the preferred email addresses of students who are registered in the course. It is vital that you activate your school email account and check it regularly for announcements, corrections, and updates

Land Acknowledgement:

York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been taken care of by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many Indigenous Peoples from numerous First Nations, Métis, and Inuit communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject to the Dish With One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region. For more information, see [The Indigenous Framework for York University: A Guide to Action](#).

Academic Honesty and Integrity:

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. To this end, plagiarism will not be tolerated in this course.

All students must become familiar with the departmental policy on academic misconduct. All plagiarism incidents will be reported and penalized in accordance with the departmental and university policies. The minimum penalty is typically a 0 on the piece of work in question, up to and including receiving a failing grade in the course. Penalties can also include a transcript note, suspension, or expulsion from the university.

Following are only three examples of academic misconduct:

1. Plagiarism, the submission of work that is not one's own or for which other credit has been obtained. Types of plagiarism include:
 - a. Downloading or buying research papers and submitting them as your own work.
 - b. Copying and pasting portions of text from online journal articles or websites without proper citation.
 - c. Copying someone else's work (a paper, lab report, formula, design, computer code, music, choreography, assignment, etc.) and submitting it as your own work.

2. Improper collaboration in group work if not expressly allowed
3. Copying or using unauthorized aids in tests and examinations

You must use York University standards when submitting your own work even if you were taught to document your sources differently in the past. There is an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve students' research and writing skills, and cope with university life. Students are expected to review the [Senate Policy on Academic Honesty](#) and the [Academic Integrity Tutorial](#)

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Following are only three examples of academic misconduct:

1. Plagiarism, e.g., the submission of work that is not one's own or for which other credit has been obtained
 - a. Most types of plagiarism include:
 - Downloading or buying research papers (downloading a paper from a website and submitting it as your own work)
 - Copying and pasting (copying and pasting portions of text from online journal articles or websites without proper citation)
 - Copying or submitting someone else's work (copying a paper /lab report /formula /design /computer code /music /choreography /assignment and submitting as your own work.
2. Improper collaboration in group work if not expressly allowed
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Access/Disability:

York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.

Students in need of these services are asked to register with disability services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with disabilities services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs. Additional information is available at [York Accessibility Hub](#).

Student Links

[Student Rights and Responsibilities](#)

[Religious Observance](#)

[Academic Accommodation for Students with Disabilities](#)

[Counselling and Disability Services](#)

[York University's Human Rights Policies and Procedures](#)

[York University's Policies on Sexual Violence](#)

[York University's Policies on Gender/LGBTQ*/Positive Space](#)

Student Conduct:

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class, according to the [Senate Policy on Disruptive and/or Harassing Behaviour in Academic Situations](#).