The objectives of 1012 are threefold: providing a first exposure to event-driven programming, teaching students a set of computing skills (including reasoning about algorithms, tracing programs, test-driven development, unit testing), and providing an introduction to computing within a mobile, net-centric context. It uses a problem-based approach to expose the underlying concepts and an experiential laboratory to implement them. A mature mobile software infrastructure (such as HTML, CSS, and JavaScript) is used so that students can pick up key programming concepts (such as variables and control flow) within a client-server context without being bogged down in complex or abstract constructs. Laboratory exercises expose students to a range of real-world problems with a view of motivating computational thinking and grounding the material covered in lecture. Prerequisites: One of (1)-(3) below must be met: (1) (New high school curriculum): One 4U Math course with a grade of at least 75%. (2) Completion of six credits from York University MATH courses (not including courses with second digit 5) with a GPA of 5.00 or better over these credits; (3) Completion of six credits from York University mathematics courses whose second digit is 5, with an average grade not below 7.00 (B+). Course credit exclusions: AP/ITEC 3020 3.00, SC/CSE 2041 4.00 (prior to Summer 2013). Previously offered as: LE/CSE 2041 4.00, LE/EECS 2041 4.00.

INSTRUCTOR(S)

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<th>Name</th>
<th>Section / Format / Term</th>
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<tr>
<td>Chinaei, Amir H</td>
<td>Sec. A / LECT / F</td>
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ADDITIONAL INFORMATION

COURSE WEBPAGE
moodle.yorku.ca and www.eecs.yorku.ca/course/1012

COURSE LEARNING OUTCOMES
1. Use a set of computing skills such as reasoning about algorithms, tracing programs, test-driven development, and diagnosing faults.
2. Explain and apply fundamental constructs in event-driven programs, including variables and expressions, control structures (conditionals/loops), and API usage.
3. Write simple programs using a given software infrastructure.
4. Gain exposure to net-centric computing, client-server applications.
5. Become familiar with the notion of syntax, both for programs and web documents, and the principle of separation of concerns.

COURSE TEXTBOOKS/RESOURCES
We will provide detailed lecture notes and links to multiple web resources on moodle.

COURSE EVALUATION
labs (best 7 out of 8 x 2%) - 14%
Midterm test - 20%
Lab tests (2 x 18%) - 36%
Subject matter quizzes (4 x 1%) - 4%
Final exam (+6% special tasks if assigned) - 26%

The final grade of the course will be based on the assessment items below, using the weights indicated. No "extra credit" assignments will be provided. In order to be fair and consistent with regards to the entire class, individual grades are not negotiable. Furthermore, marks for assignments and tests will not be "rounded" or "bell-curved".

Students re-taking this course are expected to redo all lab exercises from scratch. Reusing work from a previous offering of the course (even if it is your own work) or any other source is a violation of the Senate Policy on Academic Honesty.

Note that there are at least 8 labs; however, in calculating your grades, we omit the one in which your grade is the worst. The lab will be marked by a TA before the lab session ends. So, it is important that you go to your assigned lab (you should not attend another lab session), show your lab work to the TA, and submit it in moodle—all during your lab hour. Otherwise, your grade will be 0 in that lab. It's also important you go to the lab on time. If you are later than 15 minutes, you will receive 0 in that lab. Also, note that part of your grade in each lab is a mini quiz that is due in the first 15 minutes of your lab time.

Students who are not officially enrolled in the course (and plan to enroll) are required to attend the lectures and labs from the beginning of the term.

Midterm is scheduled for **Oct 24, Oct 25, and Nov 4** depending on your section. You must write the midterm in your own section. Lab test 1 and lab test 2 are scheduled for the week of **Oct 28** and **Nov 25**, respectively, and you must write them in your own lab. Final exam is scheduled by the university and could be anytime between Dec 5 and Dec 20.

There are four self-supervised subject matter quizzes (called SMQs) that are conducted online in moodle with the following timelines:

- SMQ1 on Tuesday Sept 17 opens at 13:00 and closes at 23:00
- SMQ2 on Tuesday Oct 22 opens at 13:00 and closes at 23:00
- SMQ3 on Tuesday Nov 12 opens at 13:00 and closes at 23:00
- SMQ4 on Tuesday Dec 3 opens at 13:00 and closes at 23:00

These quizzes tend to test your knowledge on recently covered materials. For instance, in SMQ1, we may ask you questions to verify if you have read this document (the course syllabus/outline) carefully, among other questions. Note that once you open each quiz, you have up to 10 minutes to answer that quiz. You are also responsible to make sure you have a secure internet connection before starting each quiz.

Students who do not have any programming background or students who perform very well in the course may be assigned some special tasks of worth 6%.

**Missed labs or lab-tests or midterm:** If you miss any lab or test (not a subject matter quiz or final exam), you should upload in moodle a properly completed Special Consideration Form. Please note there is a deadline to upload such forms and the deadline depends on the date of the original assessment—normally within one week of that date. Check these in moodle. Upon approval, your grade in the missing assessment will be calculated based on grades on other tests and the final exam.

**Missed final exam:** Students who miss the final exam must properly complete a Deferred Standing Agreement form and submit it together with your supporting documentation to the EECS Department Undergraduate Office (LAS 1012M) **within one week of the originally scheduled exam**.

**Remark requests:** If you believe that a test was graded incorrectly, you may request a reappraisal of the work. A reappraisal request must be properly uploaded in the moodle page **before the deadline** (which is up to one week of receiving the original grade). It is essential that you explain clearly why you think the work should be re-marked; otherwise, the grade will remain unchanged. Note that the test will be re-graded in its entirety and that re-grading can result in the grade being raised, confirmed, or lowered. Also note that remark requests will be processed within four weeks after the deadline.

**Grading:** The final grade for the course is obtained by combining the scores of the assessments and mapping this total to a letter grade according to the following mapping table. Final course grades may be adjusted to conform to Department or Faculty grades distribution profiles.
• Only use your York email account. We may not see/reply your email if it's sent via other accounts (such as yahoo, hotmail, gmail, etc.)
• Include “EECS1012” and a brief indication of the topic in the subject line. In addition, include your formal name, Passport York username, and student number in the body of your email. This is necessary to access your course materials. Also include any additional information that is pertinent to the topic of your email.
• We highly encourage you to ask questions in lecture, during office hours, and use the moodle discussion forum, before emailing the course instructor. You should use moodle to upload any paperwork within the designated deadlines. Email should be used only for special circumstances that are not facilitated in moodle.
• To save yourself time, do not ask a question whose answer is in the Course Outline and Syllabus or in the forum. Search this document instead.
• For guides on writing professional emails, read this.
• Email messages not complying with these guidelines may not be answered.

COURSE ANNOUNCEMENTS, SLIDES, LAB INSTRUCTIONS AND SUBMISSIONS ON MOODLE

Course announcements will be posted on moodle in the "Course Announcements" forum. By default, all enrolled students should receive an email notifying them of a new announcement. Regardless, it is the responsibility of each student to be aware of all course announcements that are made, so check the forum regularly.

Also, all lecture notes, link to other resources, lab instructions, deadlines, and important dates are on moodle. Students are required to submit their lab work on moodle within designated deadlines. In order to be fair and consistent with regards to the entire class, we do not make exceptions for individual students.

DISCUSSION FORUM CODE OF CONDUCT

• Students are encouraged to participate in the online moodle forums to ask or comment on questions relating to course concepts.
• Check to see if your question has already been posted. You are expected to search the forums, but you do not have to read each post. If your question has not already been asked, create a new post.
• Use a clear, informative subject line ("Please Help!" is not informative). Try to be as specific as possible.
• Post comments appropriate to the particular discussion. Off-topic posts may be deleted.
• Post only material relevant to the course. Other posts may be deleted.
• Be respectful. Posts containing personal insults, attacks, intimidation, or profanity may be deleted. Remember, TAs and instructors read forum posts too.
• Any post that appears to violate this code of conduct may be edited, moved, or deleted at the discretion of the moderators. If a post also gives indication of violating the Senate Policy on Academic Honesty or the York University Student Code of Conduct, further action may be taken. It is specifically forbidden to post or solicit solutions for quizzes, tests, or labs through the discussion forum (or elsewhere, for that matter).
• We might consider some bonus points based on your activities in the forum.

COMPUTATIONAL THINKING CLUB

The learning objectives of this course emphasize on computational thinking, in particular algorithm design. For the first time at York, EECS 1012 students who have no programming background are strongly encouraged to join the club to improve their algorithm design skills as early as the first weeks of classes. The club runs mainly during the first 6 weeks of classes. Sessions are in LAS1003C on:
• Mondays 19:00-21:00
• Tuesdays 13:30-17:30
• Saturdays 10:00-14:00

Students who get a certificate from the club may use it towards some bonus points or special tasks if they are assigned to.

PEER INSTRUCTIONS

The peer instructions activity is twofold: you enhance your learning by studying some topics of your choice with your peers and if you do it based on the guidelines we will provide you with, you improve both your learning and your grades in upcoming test/exam; you also might obtain some bonus points to boost your grade even further. The guidelines and details of how to engage in peer instructions will be posted on moodle after the midterm.

RECORDING LECTURES
Images and materials presented in lectures are subject to Canadian copyright law. Lectures are the intellectual property of the professor. Course materials are the intellectual property of the associated author(s). Neither lectures nor course materials should be distributed without explicit written permission from the professor or author.

Photographs and audio recordings are permitted, provided they are used only as a personal study aid. They may not be sold, passed on to others, or posted online. Audio can only be recorded from your seat. Exceptions may be made for students who are registered with Counselling & Disability Services and presented relevant documentation from their counsellor to the professor.

ACADEMIC INTEGRITY LINKS
- Senate Policy on Academic Honesty - http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/
- Academic Integrity - http://lassonde.yorku.ca/academic-integrity

STUDENT LINKS
- Student Rights and Responsibilities - http://oscr.students.uit.yorku.ca/student-conduct
- Religious Observance - https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs
- Student Accessibility Services (SAS) - https://accessibility.students.yorku.ca/
- York University’s Policies on Gender/LGBTQ*/Positive Space - http://rights.info.yorku.ca/lgbtq/

LAND ACKNOWLEDGEMENT
- We acknowledge our presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, the Huron-Wendat, and the Métis. It is now home to many Indigenous Peoples. We acknowledge the current treaty holders, the Mississaugas of the New Credit First Nation. This territory is subject of the Dish With One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region.
- The Indigenous Framework for York University: A Guide to Action can be found here: http://indigenous.info.yorku.ca/
- Meaning of a land acknowledgement: http://healthydebate.ca/opinions/indigenous-land-acknowledgements

Many courses utilize Moodle, York University’s course website system. If your course is using Moodle, click here to access it.
Moodle @ York University