

# EECS 1012: Net-Centric Introduction to Computing

## Sections A & B Fall 2018

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This is an introductory course in computer science. Rather than providing a broad overview of the discipline, this course takes a single aspect of computer science -- web-based programming -- and uses that to introduce a number of concepts related to data organization, procedural programming and computational thinking. Along the way it will introduce you to three commonly used languages: HTML, CSS, and Javascript.

This is a single term course lasting 12 weeks. A key element of the course is a set of lab exercises. These labs are supervised, in that you will do the lab in a specific location at a specific time and there will be someone there to help you work your way through the labs. Labs will be posted the week before they are due. You are encouraged to try to complete the lab before your lab session. You are also welcome to discuss labs with a partner, but you will be marked individually and will need to submit your own solution/code to the online system (moodle). The lab will be marked by a TA before the lab session ends – so it is important that you come to your assigned lab (*you cannot attend another lab session*). You may also help your fellow student, but please make sure you learn the concepts – do not just copy to finish the lab. The labs are primarily to prepare you for individual lab-exams where you must work independently.

Lecture notes, labs and other resources will be made available on the course's moodle page. In addition, online quizzes and subject matter tests, as well as lab submissions will be made using Moodle ([moodle.yorku.ca](http://moodle.yorku.ca)). You are responsible for any and all information posted on the Moodle site.

### Learning Outcomes for the course:

By the end of the course, students will be able to:

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

<b>Lectures:</b>	Tue	2:30pm to 4:30pm,	Vanier College (VC), Room 135	<b>Session A</b>
	Thu	2:30pm to 4:30pm,	Stedman Lecture Halls (SLH), Hall D	<b>Session B</b>
	Mon	10.30am to 2.30pm,	SLH D (SLH), Hall D	<b>Session C</b>

**Labs:** Labs take place in William Small 106 and 108. **Labs occur weekly (starting Sept 17).** You have a scheduled lab time. You can only change your lab session officially by making a request to the EECS UG office. Lab changes will be very difficult given the large enrollment.

**Office Hours.** Dr. Brown: Thurs 9.30am-10.30am in Lassonde 3022.  
Dr. Chinaei: Tues/Weds 10am-11am in Lassonde 3048.

**Emails.** Emails related to this course should be sent to [eeecs1012fall2018@gmail.com](mailto:eeecs1012fall2018@gmail.com). The subject line of the email **must** include your student number. **Please send emails from your official York email account (do not use gmail, yahoo, etc. – we cannot verify who you are).** Emails not sent to this account, or not including your student number in the subject line will receive a terse (and likely much delayed) response asking you to follow this policy. Given the lack of privacy associated with email it is not possible to discuss specific issues related to course performance, etc via email. (Please note that there are approximately 650 students in EECS1012. Following this policy will help to ensure that your email is answered promptly and not lost.)

**Textbook.** We will not be using a text book this semester. Instead we will provide detailed lecture notes and links to multiple web resources.

**Marking Scheme.** Each piece of work in the course will be assigned a numerical grade. Individual grades will be combined based on the weightings given below. Your final numerical grade out of 100 will be converted to a university letter grade using the standard table for the mapping. There are no make-up tests, alternate mechanisms of evaluation, etc. Should you miss an evaluation due to medical reasons, a properly completed **Attending Physician's Statement**<sup>1</sup> is required. Once available, marks will be posted either on Moodle or using another online resource (e.g. google doc).

The grade components of the course are as follows.

- **Five (5) Subject-matter tests (10%).** Five (5) pass/fail subject matter quizzes at 2% each – 10% total. These Moodle quizzes are to be completed individually and at your own convenience. They are time limited (20 minutes max), and each has a due date associated with it. You may use any resource – except another person – when answering these quizzes. Subject matter tests will be pass/fail; a minimum of 80% is required on an individual quiz to pass it. This means if you get 80% or more you get full marks, if you get less than 80%, you get 0 marks. You may take each quiz as many times as you like up until the due date. There is a minimum delay between attempts of 24 hours, so please start early.
- **Two (2) In-class (midterm) tests (36%).** Two in-class tests at 18% each - 36% total. These two multiple-choice tests will be held in class on the dates given on the schedule page. These tests are closed book. There is no final exam.
- **Two (2) In-lab tests (40%).** Two lab tests at 20% each - 40% total. These are two labs that you will conduct **on your own**. These are supervised events during which you will solve coding problems in the lab. The lab will be closed notes (and closed internet), however, you will be provided with cheat sheets.
- **Seven (7) Labs (14%).** Seven (7) labs at 2% each - 14% total. Details for each lab can be found through the course website. Each lab will have a PDF that you are expected to have read prior to the lab. You are encouraged to attempt your labs before the lab session. The TA will verify your lab and require you to sign a sheet that your lab has been verified. If the TA does not have your signature, you will not be given credit for the lab. There will be a practice lab near the end of the semester, but it will not be marked.

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<sup>1</sup> <https://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>

**Syllabus.** The following is a *tentative* syllabus -- it may change slightly. The slides will be available on the course website before lectures. Labs will be available the week prior to the lab.

**Week 1: 5 September – 7 September**

**Lecture:** No lectures (even for session B).

**Laboratories:** There are no laboratories this week.

**Week 2: 10 September - 14 September**

**Lecture:** Introduction to the course, brief history of the internet, introduction to HTML.

**Laboratories:** There are no laboratories this week. Organized labs start next week.

**Week 3: 17 September - 21 September**

**Lecture:** HTML cont' and CSS (part 1)

**Laboratories:** Lab 1: HTML

**Week 4: 24 September - 28 September**

**Lecture:** CSS (part 2) + HTML Forms

**Laboratories:** Lab 2: HTML with CSS

**Week 5: 1 October - 4 October**

**Lecture:** HTML Forms + Intro to Computational Thinking

**Laboratories:** Lab3: More CSS + Forms

**Week 6: 8 October - 12 October – NO CLASSES**

**Lecture:** No lectures – Fall Break

**Laboratories:** No labs – Fall Break

**Week 7: 15 October - 19 October**

**Lecture:** Continue computational thinking, Intro to JavaScript

**Laboratories:** In-Lab Test #1

**Week 8: 22 October – 26 October**

**Lecture:** Javascript continued, In-class exam #1

**Laboratories:** Lab 4: Javascript

**Note:** Fall reading period October 26-29.

**Week 9: 29 October - 2 November**

**Lecture:** JavaScript and the Document Object Model (DOM)

**Laboratories:** Lab 5: Javascript

**Week 10: 5 November – 9 November**

**Lecture:** more on JavaScript and DOM

**Laboratories:** Lab 6: Javascript DOM

**Week 11: 12 November - 16 November**

**Lecture:** Putting it together – HTML Forms + JavaScript

**Laboratories:** Lab 7: Javascript Events

**Week 12: 19 November - 23 November**

**Lecture:** Javascript and AJAX

**Laboratories:** Practice Lab Test (w/ Javascript + Forms)

**Week 13: 27 November – 1 December**

**Lecture:** Course wrap up (In-class exam #2 for Session B)

**Laboratories:** In-lab Test #2

**Week 14: 3 December – 7 December**

**Lecture:** In-class exam #2 (Sessions A & C)

**Laboratories:** No Lab