EXPANDED COURSE DESCRIPTION
ELECTRICAL ENGINEERING AND COMPUTER SCIENCE
Lassonde School of Engineering
Electrical Engineering Computer Science
LE/EECS 1022 3.0 SECTION A
PROGRAMMING FOR MOBILE COMPUTING
FALL 2018 / WINTER 2019

Last Modified Date: 08/31/2018

COURSE CALENDAR DESCRIPTION
Provides a first exposure to object-oriented programming and enhances student understanding of key computing skills such as reasoning about algorithms, designing user interfaces, and working with software tools. It uses problem-based approach to expose the underlying concepts and an experiential laboratory to implement them. A mature mobile software infrastructure (such as Java and the Android programming environment) is used to expose and provide context to the underlying ideas. Laboratory exercises expose students to a range of real-world problems with a view of motivating computational thinking and grounding the material covered in lectures. Prerequisite: LE/EECS 1012 3.00. Course credit exclusions: LE/EECS 1021 3.00, LE/EECS 1020 3.00 (prior to Fall 2014), LE/CSE 1020 3.00 (prior to Fall 2014), SC/CSE 1020 3.00 (prior to Summer 2013), AP/ITEC 1620 3.00.

INSTRUCTOR(S)

<table>
<thead>
<tr>
<th>Name</th>
<th>Section / Format / Term</th>
<th>Contact Email</th>
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<tbody>
<tr>
<td>Lesperance, Yves</td>
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ADDITIONAL INFORMATION

COURSE DESCRIPTION
This course provides a first exposure to object-oriented programming and enhances student understanding of key computing skills such as reasoning about algorithms, designing user interfaces, and working with software tools. It uses problem-based approach to expose the underlying concepts and an experiential laboratory to implement them. A mature mobile software infrastructure (such as Java and the Android programming environment) is used to expose and provide context to the underlying ideas. Laboratory exercises expose students to a range of real-world problems with a view of motivating computational thinking and grounding the material covered in lectures.

Object-Oriented Programming
• Primitive types
• Classes and objects
• Control structures
• Collections

Mobile Computing
• User interface elements and XML
• Layouts and Themes
• Activities and Intents
• Event Handlers

COURSE LEARNING OUTCOMES
By the end of the course, the students will be able to:
• Understand software development within an object-oriented framework using a modern programming language and tool set.
• 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 (conditional/loops), and API usage.
• Write simple programs using a given software infrastructure, API, and tool chain.
• Gain exposure to a comprehensive mobile computing framework.
• Gain exposure to user interface design.

TEXTBOOK

The textbook is required; it is available at the York University Bookstore and on Amazon.

EVALUATION SCHEME
Labs (6 @ 3% each) - 18%
Lab tests (3 @ 10% each) - 30%
Final exam - 52%

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
• Academic Accommodation for Students with Disabilities - http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/
• Counselling and Disability Services - http:// cds.info.yorku.ca/
• York University’s Policies on Sexual Violence - http://secretariat-policies.info.yorku.ca/policies/sexual-violence-policy-on/
• 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