EXPANDED COURSE DESCRIPTION
ELECTRICAL ENGINEERING AND COMPUTER SCIENCE
Lassonde School of Engineering
Electrical Engineering Computer Science
LE / EECS 2021 4.0 SECTION E
COMPUTER ORGANIZATION
FALL 2017 / WINTER 2018

Last Modified Date: 09/05/2017

COURSE CALENDAR DESCRIPTION

Introduction to computer organization and instruction set architecture, covering assembly language, machine language and encoding, addressing modes, single/multicycle datapaths (including functional units and controls), pipelining, memory segments and memory hierarchies. Three lectures hours and three laboratory hours per week. Four credits. Prerequisites: General Prerequisite; LE/EECS 1021 3.00 or LE/EECS 1022 3.00 or LE/EECS 1720 3.00 or LE/EECS 1030 3.00. Course credit exclusions: LE/SC/CSE 2021 4.00, AK/AS/SC/COSC 2021 3.00. (NOTE: The General Prerequisite is a cumulative GPA of 4.50 or better over all major EECS courses. EECS courses with the second digit "5" are not major courses.)

INSTRUCTOR(S)

<table>
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<tr>
<th>Name</th>
<th>Section / Format / Term</th>
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<tbody>
<tr>
<td>Aboelaze, Mokhtar</td>
<td>Sec. E / LECT / F</td>
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LIST OF LEARNING OUTCOMES AND EXAMPLES OF

By the end of the course, the students will be expected to be able to:
1. Translate high-level code to assembly language and machine code
2. Represent data in machine readable form and describe how it is stored and manipulated in a CPU
3. Synthesize hardware of increasing complexity from logic gates to a simple CPU using a Hardware Description Language
4. Evaluate computer performance and compare performance on different architectures and designs
5. Describe and critique I/O and Parallel Hardware

GRADED ASSESSMENT

The weight distribution of the course components is as follows:
- 5% - Participation
- 20% - Quizzes
- 20% - LAB
- 20% - Midterm
- 35% - Final Exam

ADDITIONAL INFORMATION

You will require the following textbook for this course:

ACADEMIC INTEGRITY LINKS
- Senate Policy on Academic Honesty
• Academic Integrity

STUDENT LINKS
• Student Rights and Responsibilities
• Religious Observance
• Academic Accommodation for Students with Disabilities
• Counselling and Disability Services

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