Wayne State University – Department of Computer Science
CSC3101- Computer Architecture and Organization Lab
Fall 2017

Section: 001
Time: 5:30 pm – 7:10 pm
Instructor: Yuanzhe Li
Email: et8023@wayne.edu
Office: room 2212, 5057 Woodward
Office Hours: Wed 11am – 12 pm
End date: Nov 29th

Brief Course Description:
Computer Architecture is concerned with the structure and behavior of the various functional modules of the computer and how they interact to produce processing needs of user. The main objective of the CSC3101 – Computer Architecture and Organization Lab Sessions is to complement the lectures of CSC3100, offering a hands-on approach to learning. It is intended to have around 13 lab sessions. Each weekly laboratory assignment builds upon the previous lessons of CSC3100. However, grading of the two courses is separated. Completed assignments should be submitted to Blackboard for grading.

Lab Sessions 1-7: Creating & simulating basic digital circuits by using Logicly.
Lab Sessions 8-13: Developing Assembly programs for Motorola 68000 using a simulator.

Course Outcomes
1. Knowledge of fundamental circuit components
2. Techniques for designing circuits from logic representations
3. Knowledge of arithmetic logic units (ALU)
4. Knowledge of asynchronous circuit design and on chip memory design
5. Write simple programming constructs and programs using assembly language
6. Understand the translation of assembly instructions into their binary representation
7. Understand the process of interpreting high level programming language to device aware binary signal.
8. General knowledge of memory layout, in typical programming language.

Required Textbook

Required Software
Logicly, EASY68K
Verilog (optional)
**Class room policies and attendance**
Students are expected to attend all lab sessions. Students should notify the instructor of any anticipated absence in writing whenever possible. Oral excuses are not accepted. It is student’s responsibility to make up any material missed whenever they are absent. Additional lab time is not assigned for make-up.

**Grading policy:**
Students are evaluated by in-class assignments, and take-home exams.
All the in-class assignments must be submitted by the end of the class, and the grade will be given up on the completeness.
Take-home exams for midterm and final will be given in the 7th and 13th class and must be submitted before deadline.

**Grading Allocation:**

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-class Assignments</td>
<td>70%</td>
</tr>
<tr>
<td>Take-home exam</td>
<td>30%</td>
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All lab assignments are equally weighted and contribute 70% to your total.

**Grade Criterion**
Results are converted to letter grade according to the following criterion.
90% or above A
89% - 85% A-
84% - 80% B+
79% - 75% B
74% - 70% B-
69% - 65% C+
64% - 60% C
Below 60% F
Absence without make-up 0

**Student Responsibilities and Academic Honesty**
Any kind of academic dishonesty (copying, plagiarism, fabricating or cheating etc.) is not tolerated.
All students are expected to have the highest level of academic honesty.
All assignments in the course are expected to be your individual work. You are allowed to discuss lab assignments with your instructor or other students. Turning in a copy of someone else’s work or even a copy with extensive changes made to it is a very serious offence.

**Course Drops and Withdrawals**
Last Day for Tuition Cancellation: Sep 13th
Last Day to withdraw: Nov 12th
After Sep 13th there is no tuition or fee cancellation. Students who wish to withdraw from the class can initiate a withdrawal request on Pipeline. You will receive a transcript notation of WP (passing), WF (failing), or WN (no graded work) at the time of withdrawal.

After Nov 12th, students who decide to withdraw from the class will receive a grade. Because withdrawing from courses may have negative academic and financial consequences, students considering course withdrawal should make sure they fully understand all the consequences before taking this step. More information on this can be found at: http://reg.wayne.edu/pdf-policies/students.pdf

**Holiday (no class)**

There is no class on Nov 22th.

**Religious Holidays**

Because of the extraordinary variety of religious affiliations of the University student body and staff, the Academic Calendar makes no provisions for religious holidays. However, it is University policy to respect the faith and religious obligations of the individual. Students with classes or examinations that conflict with their religious observances are expected to notify their instructors well in advance so that mutually agreeable alternatives may be worked out.

**Student Disabilities Services**

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination of your academic accommodations. The Student Disability Services (SDS) office is located in the Adamany Undergraduate Library in the Student Academic Success Services department. SDS telephone number is 313-577-1851 or 313-202-4216 (Videophone use only). Once your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University.