ENGR 15 – FUNDAMENTALS OF DIGITAL SYSTEMS
COURSE SYLLABUS

Course Description
This class introduces students to the basic concepts of digital systems, including analysis and design. Both combinational and sequential logic will be covered. Students will gain experience with several levels of digital systems, from simple logic circuits to the Verilog hardware description language and microcontroller programming in C.

Instructor Information
Prof. Matt Zucker
Office: Hicks 219 – office hours: Monday 3:00 PM - 5:00 PM
Phone: (610) 328-8636
Email: mzucker1@swarthmore.edu

Meeting Times
Lecture: McCabe Library 306, M/W/F, 9:30 AM - 10:20 AM
Labs: Hicks 212, M/W, 5:00 PM - 8:00 PM

Prerequisites
At least 1 credit in engineering or computer science or permission of the instructor.

Textbook

Assignments and grading
Homework consisting of math, short answer questions, and small coding exercises will be assigned weekly. Additionally, you will be required to complete several labs (roughly two a week for the first ten weeks of the semester), as well as a self-directed final project. Projects and labs will be completed in small groups. The course has two midterm exams as well as a final exam. Grading will follow approximately the divisions shown below:

- Homework: 20%
- Projects/labs: 30%
- Midterm exams: 2 x 15%
- Final exam: 20%

Labs
Labs will be conducted in small groups, typically pairs of students. Due to staffing constraints in the engineering department, the labs are scheduled during the evening hours, from 5PM-8PM. Attending your regularly scheduled lab session is mandatory, and not doing so will severely impact your grade in this course. See the course website for more details, including a separate lab syllabus.
Collaboration policy

- Homework should be completed individually.
- Labs and final projects should be completed in your assigned small groups.
- Although you may discuss the homeworks with your other classmates, I expect that the work you turn in is your own.
- If you do discuss your solutions with your classmates, I expect you to disclose any such collaboration clearly in your writeups and/or reports. Err on the side of caution – it’s the best way to avoid awkward conversations about suspicious similarities between assignments with no attribution of credit.
- Cite any external sources used, including the textbook, web sites, discussions with faculty, etc.

Late policy

Homework will generally be assigned on Friday, and due at the start of class the following Wednesday. Late work may be turned in for half credit up to the second class meeting after the deadline (e.g. the following Monday, if due on Wednesday), and is worth zero credit thereafter. Each student gets two “free” late homework turn-ins for the semester.

Due to the group nature of the work, labs and projects will be strongly penalized for lateness.

I will do my best to accommodate you in extraordinary circumstances. Bear in mind that advance notice of such circumstances is always better.

Webpage

The course webpage is at http://www.swarthmore.edu/NatSci/mzucker1/e15_f2014/. This page will be regularly updated with assignments, projects and reading. You are expected to be responsible for checking for webpage updates in a timely fashion.