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: M/W 1:30 PM - 3:30 PM
Phone: (610) 328-8636
Email: mzucker1@swarthmore.edu

Meeting Times
Lecture: Hicks 211, Tuesday & Thursday, 11:20 AM - 12:35 PM
Labs: Hicks 310, Monday & Tuesday 6:30 PM - 9:30 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: 25%
- Projects/labs: 30%
- Midterm exams: 2 x 15%
- Final exam: 15%
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 6:30PM-9:30PM. Please be aware that lab attendance is mandatory.

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 homework 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 other professors, etc.

Late policy

Homework will generally be assigned on Thursday, and due at the start of class the following Thursday. Homework assignments may be turned in up to four days late (i.e. the following Monday) for half credit. Students get two free late turn-ins without penalty.

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_f2015/. 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.