Meeting Times and Location:
Section 1: Monday and Friday 11-11:50AM Lab Roddy Hall Rm 136
       Tuesday 10-11:50AM Roddy Hall Rm 136 or Windows Lab (Caputo 131)
Section 2: Monday and Friday 1-1:50PM Lab Roddy Hall Rm 136
       Wednesday 1-2:50PM Roddy Hall Rm 136 or Windows Lab (Caputo 131)

Office Hours: My office hours are Mondays 10am-11am, Wednesdays 10am-noon,
and Fridays 10:00-11am and 12-1pm. During office hours I can be found either in
the lab or in my office (Rm 133, Roddy Hall).

How to reach me: The best way to reach me outside of office hours is by email
(stephanie.schwartz@millersville.edu). If you don’t have access to email, my office
phone number is 872-3470. I try to check this as frequently as possible, but I don’t
check it as often as I do my email!

Prerequisite: CSCI 140 and CSCI 162

Required Text: Introduction to Computer Theory. Daniel I. A. Cohen. Publisher:

Course Description: This course covers important results in the theory of computer
science that provide insight into both the capabilities and limitations of computing
machines. Emphasis is placed on the relevance of theoretical results to practical
problems such as compiler construction and language processing. Topics include
automata, Turing Machines, formal grammars, formal languages, non-computability,
and computational complexity. The course includes a laboratory component.

Goals: There are several goals for this course. At the end of this course, the
successful student will be able to:
  • Demonstrate an understanding of various proof techniques. In particular, be
    able to demonstrate the ability to carry out proofs by induction for simple
    problems.
  • Define, interpret, and construct deterministic finite-state automata and non-
    deterministic finite-state automata; define, interpret, and construct regular
    expressions; apply these formalisms to practical programming problems.
  • Define, interpret, and construct deterministic pushdown automata and non-
    deterministic pushdown automata; apply these formalisms to practical
    programming problems.
  • Understand the concept of Turing machines and their applications to
    computability.
  • Explain the concepts of computable functions, the Universal Machine, the
    decision problem, and the difference between decidable and undecidable
    problems.

These goals will be accomplished through the content of the lectures and textbook,
as well as hands-on experience. This hands-on experience includes written
assignments, designing models and writing programs (both in the lab and in project assignments). The achievement of the goals will be measured through your performance on approximately 8-10 assignments, any quizzes, and three exams.

**Grading:**
Exam 1: 20%
Exam 2: 20%
Final: 20%
Homework, Quizzes and Labs: 35%
Participation and attendance: 5%

Grading will be on a 100 point scale, with 93%=A, 90%= A-, 87%=B+, 83%= B, etc. You must complete all exams, labs, and assignments in order to pass the course.

Participation and attendance: Of the 5%, 3% will be based on attendance and 2% on participation.

Earning the attendance credit:
0 or 1 unexcused absences: full 3%
2 unexcused absences: 2%
3 unexcused absences: 1%
>3 unexcused absences: 0%

**Deadlines**
Assignments are due at the beginning of the class period on the assigned due date, unless otherwise specified. No late assignments will be accepted. If your assignment is incomplete, turn it in for possible partial credit.

**Exams**
There are no make-up exams - if you miss a test, you will receive a zero. Exceptions may be made at my discretion for reasons of illness (as in "on your deathbed") or university excused absences.

**Special Needs**
Anyone requiring special accommodations should contact me as soon as possible.

**Course Web Site:** Lots of information about the course and helpful resources can be found at the course web site: http://cs.millersville.edu/~schwartz/courses/csci-340/