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

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

Office Hours: My office hours are Tuesdays 9am-10am, Wednesdays 12-3pm, and Fridays 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 871-4308. 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


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%

Attendance
You are expected to attend class and lab, read the textbook, complete assigned problems, participate in class discussions, and work productively during problem sessions and labs. Lab attendance is REQUIRED.

Classroom Civility
Arrive at class promptly, prepared and ready to participate. Set your phone to silent mode and, except in cases of emergency, remain in the classroom for the duration of the meeting. If it is necessary to leave or enter a room once class has begun, do so quietly and with as little disruption as possible. Avoid talking which may be disruptive to your fellow students and professor.

Violating these principles more than TWICE may result in expulsion from the course.

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.

Title IX Reporting Obligations
Millersville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment, comply with Title IX of the Education Amendments of 1972, 20 U.S.C. §1681, et seq., and act in accordance with guidance from the Office for Civil Rights, the University requires faculty members to report to the University's Title IX Coordinator incidents of sexual violence shared by students. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project. Faculty members are obligated to report to the person designated in the University
Protection of Minors policy incidents of sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred.

Information regarding the reporting of sexual violence, and the resources that are available to victims of sexual violence, is available at http://www.millersville.edu/socialeq/title-ix-sexual-misconduct/index.php.  

**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/