CSCE 433/627: Formal Languages and Automata/Theory of Computability  
Spring 2013

Instructor: Prof. Tiffani L. Williams, HRBB 328C (office), 845-7977 (phone)  
Email: tlw@cse.tamu.edu  
Meeting: T, Th 12:45–2:00pm ZACH 105B  
Office Hours: T, Th 2:30pm–3:30pm and by appointment  
Course Webpage: http://faculty.cse.tamu.edu/tlw/  

Course objectives

• To introduce you to the theoretical foundations of computer science concerning
  – the relationships between languages and machines,
  – the inherent limits of what can be computed, and
  – the inherent efficiency of solving problems.

• To increase your ability to recognize and create rigorous mathematical arguments.

• To have fun thinking through problem solving!

Expectations for graduate and undergraduate students

This course consists of a mix of undergraduate and graduate students. As a result, there should be some interesting class discussions. The material will be taught so that it is accessible to everyone in the class.

Graduate students will be expected to explore the course material in more depth than the undergraduate students. Hence, graduate students will be required to solve a few extra homework problems and exam questions that probe the material in more depth. Of course, interested undergraduates can complete any of the extra problems for extra-credit.

For example, undergraduate and graduate students will take the same in-class exams. However, once the in-class exam is complete, graduate students will be given a take-home portion (with one or two questions) that will be turned in during the next class meeting. So, if the in-class exam is on Thursday, then the take-home portion will be due when class resumes the following Tuesday. On the homework, in-depth problems meant for the graduate students will be clearly labeled.

Overall, undergraduate and graduate students should find the material both interesting and challenging.

Grading

Your grade will be based on four components.

• Exams (50%) – There will be two mid-term exams and one final exam. The exams will be held in class. The two-mid term exams will each be worth 15%. The final exam is cumulative and will be worth 20%.

• Quizzes (15%) – There will be short weekly quizzes every Thursday consisting of a few simple questions concerning the course material. The purpose of the quizzes is to help you stay caught up in the class. The first quiz will be on Thursday, January 24th.
• Homework (35%) – Homework assignments are designed to help you understand the course material and improve your problem-solving abilities.

  No late assignments will be accepted. Assignments are due at the beginning of class. There will be no make-up exams except for university-excused absences. Please discuss unusual circumstances in advance with me.

Academic integrity

Aggie Code of Honor (http://www.tamu.edu/aggiehonor)

"Aggies do not lie, cheat, or steal nor do they tolerate those who do." Students are expected to attend all classes, complete assignments on time, and participate fully in class discussions and group projects. Violations will be handled in accordance with the Texas A&M University Regulations governing academic integrity.

Plagiarism

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without research cannot safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section for Scholastic Dishonesty.

American with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, services for students with disabilities in Room 126 of Koldus Building, or call 845-1637.