$\begin{array}{c} {\bf Course~Syllabus} \\ {\bf COMP~455\text{-}001-Models~of~Languages~and~Computation} \\ {\bf Fall~2019} \end{array}$

Meeting Place: Stone Center 0103 Meeting Time: 11:00 - 12:15 Tues Thurs

 ${\bf Instructor:}\ {\bf Prof.}\ {\bf David}\ {\bf Plaisted}$

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Text: Elements of the Theory of Computation, chapters 1-7, by Lewis and Papadimitriou.

Order text at https://tinyurl.com/comp-455-001-unc-w19

Prerequisites: COMP 110 or 401, and COMP 283 or MATH 381.

• Assignments and Tests

There will be two mid-semester exams, a final, and probably 9 homework assignments. The mid-semester exams will be on Tuesday, September 24 and Thursday, October 31. The final exam is at noon on Thursday, December 12. Exams are in class and are closed book and closed notes. All quizzes together count one percent of the grade. Other than this, the grading algorithm will probably be 36 percent for the final exam, 25 percent for the first mid semester exam, 26 percent for the second mid semester exam, and 12 percent for homework. There may also be a few extra credit challenge problems.

• Homework

Homework is due at the beginning of class. It will be submitted on Gradescope. If the homework is more than 5 minutes late, you will lose 10 percent of the points. If it is not handed in by the end of class, you lose 20 percent. If it is not handed in by the end of the day, you lose 30 percent. If it is not handed in the next day, you lose 40 percent or more. You may work on the homework in groups of at most three persons. Homework is VERY important for the grade and for your understanding of the material.

• Class participation

Class participation and behavior in class can affect your grade, especially if it is on the borderline. Also, there are a few guidelines for behavior. If you have to leave class for a good reason, you don't need to wait until my back is turned. If you need to yawn, do it quietly. Try to enjoy class. Think of it as a course you chose, even if it is now a required course. It may help.

• Grade distribution

In my classes most of the students typically get a C or better, but I do not grade on a curve. Typically 90-100 percent is the A range, 80-90 is B range, and so on, with a little more generosity for C and D. Plus and minus grades are near the boundaries. There are also typically extra credit problems on exams so it is possible to have well over 100 percent. This course requires some aptitude in theory. If you are weak in theory (i.e, math), do not be upset if you do not get an A or a B. In the fall of 2002 people did unusually well and there were 19 A's, 3 H's, 9 B's, and 6 C's. In the spring of 2002 there were 16 A's, 23 B's, 16 C's, and one D, not counting plusses and minuses and not counting graduate students, most of whom got H's. The 16 C's included one C-. Students who do not come to class often, tend to get lower grades unless they have exceptional ability in abstract thinking.

• Course objectives

The objectives of this course are for you to:

- Learn the factual material
- Be able to apply the algorithms and methods presented
- Gain an intuition for automata and formal languages
- Become more familiar with formal proofs

• Web page

The COMP 455 web page is at www.cs.unc.edu/~plaisted/comp455.

This web page contains lecture notes for the course, which give the subject matter covered in the course. It also contains other material relevant for the course.

• Honor Code

You should be aware that the honor code, which prohibits the giving or receiving of unauthorized aid on exams and homework, is in effect.

• Disabiliies

The University of North Carolina Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in difficulties with accessing learning opportunities.

All accommodations are coordinated through the Accessibility Resources and Service Office. In the first instance please visit their website http://accessibility.unc.edu, call 919-962-8300 or email accessibility@unc.edu.

Please contact ARS as early in the semester as possible.