COURSE NUMBER: CSC 350

COURSE TITLE: Foundations of Computer Science II

CREDITS: 3:3

PREREQUISITES: Grade of at least C (2.0) in CSC 250, or permission of instructor

FOR WHOM PLANNED: This course is a required course for Computer Science majors.

INSTRUCTOR INFORMATION: Dr. Fred Sadri, Office: 156 Petty Building, Phone: 336.256.1136, email: sadri at uncg dot edu,

CATALOG DESCRIPTION: High level concepts in the theoretical foundations of computer science.

STUDENT LEARNING OUTCOMES: Upon successful completion of this course students will be able to

- Define basic terminology relating to logic, algebraic structures, languages and automata.
- Practice the application of appropriate mathematical principles used to create logical expressions, algebraic structures, languages and automata.
- Evaluate logical expressions, algebras, languages, and automata.

TEACHING METHODS AND ASSIGNMENTS FOR ACHIEVING LEARNING OUTCOMES: Instruction will be performed through lectures and class discussions. Assignments will be given to provide practice with concepts covered in lectures.

EVALUATION AND GRADING:
Assignments and/or quizzes: 20%
Tests: 80% (Test 1: 25%, Test 2: 25%, Test 3: 30%)

TEST DATES:
Test 1: Tuesday February 8, 2011.
Test 2: Tuesday March 22, 2011.
Test 3: Thursday April 21, 2011.
(If UNCG is closed on April 21, 2011 for any reason, test 3 will be given on Thursday April 28, 2011.)


OUTLINE:
- Elementary Logic (Chapter 6 of textbook.)
- Predicate Logic (Chapter 7 of textbook.)
- Selected sections from Chapter 5 of textbook (Analysis Techniques).
- Computational Logic (Chapter 9 of textbook.)
- Algebraic Structures and Techniques (Chapter 10 of textbook.)
- Regular Languages and Finite Automata (Chapter 11 of textbook.)
- *Context-Free Languages and Pushdown Automata (Chapter 12 of textbook.)

ACADEMIC INTEGRITY POLICY: Students are expected to abide by the UNCG Academic Integrity Policy, which is online at http://academicintegrity.uncg.edu. Any infraction(s) will result in failure of the entire course and a final course grade of F.
Students are required to sign the Academic Integrity Pledge on any work they do. The pledge is the statement “I have abided by the UNCG Academic Integrity Policy on this assignment.”

1Topics marked with * will be covered if time permits.
ATTENDANCE POLICY: Regular class attendance is a responsibility and a privilege of university education. It is fundamental to the orderly acquisition of knowledge. Students should recognize the advantages of regular class attendance, accept it as a personal responsibility, and apprise themselves of the consequences of poor attendance. Absences in excess of three days may result in being automatically dropped from the course.

ADDITIONAL NOTES:

- Students must have satisfied all prerequisites for this course, or have permission from the instructor.

- The grade you will receive in this course is a function of your numerical marks in the assignments, quizzes, tests AND the overall performance of all students in the course. The marks will be “normalized” to assess a student’s performance. A rough guideline is as follows: 90% to 100%, A; 80% to 89%, B; 70% to 79% C; 60% to 69% D (for undergraduate students) or F (for graduate students); below 60%, F.

- Students should be present for all tests. No make-up tests will be given.

- I often use email to communicate with you. I will only use your UNCG email addresses. Please make sure to check your messages regularly. If you normally use a different email address, it is your responsibility to forward your UNCG messages to that address.

- You are encouraged to seek information in other books or on the web. BUT you must cite the source if you use any material from other books or the web (for example, in your homework). Otherwise it is considered cheating.

- Homeworks are due in class.

- A penalty of 20% (of the total homework mark) per day will be levied for late assignments. Late submission of a homework is accepted until it is discussed in class. You are encouraged to turn in homeworks even if you have lost all of its mark due to penalty.

- It is a good idea to retain a copy of your works until you receive your final grade for the course.

- Please back up all your computer work.

- Some topics from the text or references will be designated as “reading assignments”. You are responsible to read these topics on your own, and ask questions during classroom hours or my office hours if there are any parts that need clarification.

- For administrative reasons I may need to make copies of some of your works and exams. Please notify me if you wish no copy of your works and tests to be made.

- Academic Integrity Policy will be strictly enforced.

- Laptop/Cellphone Policy: Laptops can be both a benefit and a distraction in a classroom. While many students benefit from taking notes using a laptop, or having access to class-related resources during class, other students cannot resist the temptation of checking e-mail, chatting, working on assignments (for this or another class), or even playing games during class time. This class has a strict “no non-class related use” rule for laptops. If you are found violating this policy, then your in-class laptop privileges will be taken away and additional penalty may be levied. Cellphones are a distraction for everyone, and should be turned off during class. If there is a special situation where you need to have your phone on for a particular day, please let the instructor know the situation before class.