MATH 174: SECTION 002 - FALL 2018
DISCRETE MATHEMATICS FOR COMPUTER SCIENCE

Lecture: M, W   5:30pm - 6:45pm   LECONTE 101

Instructor
Duncan Wright
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Office Hours: M 12pm - 1:30pm, W 3:45pm - 5:15pm (or by appointment)
Course Webpage: `http://people.math.sc.edu/dw7/class_webpages/Math174.html`

Course Description: The goal of this course is to introduce concepts in logic, number theory, set theory and discrete mathematics and their applications in computer science. The lectures will be used to cover new materials. The student is expected to read the section to be covered prior to the lecture. The instructor will present new and additional material, answer questions and work examples. Homework will be assigned on a regular basis. There will be 10-12 quizzes in the course which will cover the homework problems assigned and will allow the student to have constructive feedback from the instructor before the exams.

Learning Outcomes: Upon completion of Math 174, the student will be able to demonstrate understanding and application in computer science for the following concepts:

- Basic logic

- Basic number theory

- Sequences, series and recursion

- Mathematical induction

- Set theory

- Enumeration

- Functions and relations

- Graphs and trees

Calculators: A good scientific calculator is needed to be successful in this course. Basic combinatorial functions will be especially helpful.

Text(s): *David J. Hunter; Essentials of Discrete Mathematics, 3rd ed., Hunter, Jones & Bartlett Learning, 2017.*

Date(s): Last day to drop without a W is August 29, 2018. Last day to drop without a WF is October 15, 2018. The final exam is scheduled for Wednesday, December 12, 2018 at 4:00 pm.

Grade Distribution:

Quizzes	20%
Homework	20%
Midterm Exam I	12%
Midterm Exam II	12%
Midterm Exam III	12%
Final Exam	24%

Letter Grade Distribution:

$>= 90.00$	A	70.00 - 74.99	C
85.00 - 89.99	B+	65.00 - 69.99	D+
80.00 - 84.99	B	60.00 - 64.99	D
75.00 - 79.99	C+	$<= 59.99$	F

COURSE POLICIES AND EXPECTATIONS

Participation: Participants are expected to attend every class meeting and to get involved in the discussion. We will learn much more if we explore the mathematics together. Out-of-class participation is also expected, so read the text and other classroom materials. Get to know the other students in class; exchange phone numbers; work together on assignments; and give each other moral support.

Cell Phones: Make sure that your cell phone is off and away during our sessions.

Attendance: Attendance is mandatory for those wishing to do well in the course. Attendance will not be taken into consideration when determining grades.

Academic Integrity: I expect you to familiarize yourself with the Honor Code found in the current student handbook. Keep in mind that Any student who violates this Honor Code or who knowingly assists another to violate this Honor Code shall be subject to discipline.

Students with Disabilities: Students who would like to request accommodations for disabilities must talk to me as soon as possible. Students must register with the Office of Student Disability Services before I can make any accommodations.

Make-Up Policy: Exams can be made up ONLY in the case of an emergency, and ONLY if you request a make-up exam before the scheduled time. It is your responsibility to contact me within a reasonable time to request a make-up exam. No make-up quizzes will be given, but the lowest two quiz grades will be dropped at the end of the semester.

ADDENDUM

TESTING AND GRADING POLICIES

Below I will outline my testing and grading policies. Of course, policies can (and may) change as the semester progresses - I will let you know if this is to occur.

HOMEWORK Homework will be assigned weekly and will consist of 4-8 problems. It will be due at the beginning of the indicated class. In addition, 10-15 practice problems will be assigned each week and quiz problems will be selected from these. Bold faced practice problems may double as extra credit on exams.

QUIZZES One quiz will be given weekly. In general you can expect 2-3 questions on the quiz and you will have 15 minutes to complete them. Questions for the quizzes will be selected from the practice problems at the bottom of each worksheet. Doing your homework and understanding the nature of the homework problems assigned is the best way to prepare for quizzes.

EXAMS <u>Midterm Exams:</u>

Midterm exams will be given monthly (see below). A typical exam will have 8-12 exercises covering the material and you will be given 75 minutes to complete it.

<u>Exam Grading:</u>

Each exercise will be assigned a number of points indicated on the exam. Full credit will show that you had full understanding of the question and did all math properly. Missing a few points will indicate that the understanding of the question was there, but some math was done incorrectly. The correct answer with no work will receive 0 points.