Syllabus for Finite Mathematics (MATH 170) Spring 2014 (Jan 13 – May 07), Section 6 Department of Mathematics

University of South Carolina - Columbia

Instructor	Danny Rorabaugh
Office	LeConte 123B
Email Address	<u>rorabaug@email.sc.edu</u>
Office Hours	Wed 09:30 – 11:30 (LC123B)
	Thu 13:00 – 15:00 (LC105)
Classroom	Callcott SSC #102
Tue, Thu	10:05 - 11:20

Prerequisites

The prerequisite for Finite Mathematics (Math 170) is "qualification through placement or a grade of C or better in MATH 111 or 115."

Learning Outcomes

In Math 170, students will gain a mastery of the topics in elementary matrix theory, systems of linear equations, permutations and combinations, probability and logic. Furthermore students will achieve a greater ability to represent real-life situation in numerical forms and use mathematics to solve real-life problems.

Course Expectations

... of the instructor:

- All graded work returned within a week;
- Availability during office hours and, with reasonable promptness, via email;
- Instruction at a sufficient pace to cover 3 credits of relevant material;
- Faithfulness to the syllabus and clear notification when changes are necessary.

... of the student:

- Ask questions during class and/or in office hours and/or via email;
- Correct your mistakes learn from incorrect and incomplete answers on homework, test, and quizzes;
- Participation regular attendance and taking part in class activities;
- Academic honesty so as to not cheat yourself or your classmates (see page 4);
- Read the syllabus then consult it as necessary.



This message brought to you by every instructor that ever lived.

Course Materials

Your textbook package for this class is available in the bookstore for \$166.65. Alternatively, the course coordinator for Math 170 (Ivan Hanes, <u>haynes1@mailbox.sc.edu</u>) has arranged for a cheaper package to be available at <u>http://www.cengagebrain.com/micro/USCMATH170</u> for \$143.75. The textbook in this second package is a custom edition, missing Chapter 0, which is for algebra review.

Textbook:	Finite Mathematics, 6e	
	Stefan Waner and Steven Costenoble	
	ISBN13: 978-1-133-60577-5	

Each package includes the textbook listed above and an access code for WebAssign – <u>http://www.webassign.net</u> – the online system we will be using for homework. To register for our class, the Class Key is **sc 2931 5591**. Access to WebAssign is **required** for this course. However, since the online system comes with an eBook, the textbook itself is *optional*. If you elect not to purchase one of the aforementioned packages, then you can purchase access online for about \$95 when you enroll. Temporary free access is available for 14 days. Thus, if you are not prepared to pay or are waiting for your textbook package with the access code, <u>sign up for the course on WebAssign anyway</u>, so you won't fall behind on the homework.

Whereas homework will be completed in WebAssign, announcements, course documents, and grades will be posted in Blackboard – <u>https://blackboard.sc.edu</u>. An email will be sent out from Blackboard whenever a new announcement is posted; make sure Blackboard has an email address that you check regularly.

A graphing calculator is necessary for this course, and should be brought to class every day. However, CAS/symbolic calculators (e.g., TI-89 and TI-92) shall be non-existent on quizzes or tests.

Electronics in Class

No electronic distractions are to be used in class. This includes laptops, cell phones, and mp3 players. Calculators, watches, pacemakers, hearing aids, etc. are obviously permitted. If you take notes on a laptop or tablet, please check with me first. The instructor retains the right to mark absent anybody disregarding this policy.



Distracted kittens from http://www.lifewithcats.tv/wp-content/uploads/2013/04/aoowry.jpg

Grading

Your grade will be based on assignments, regular quizzes, three midterm exams, and one final exam. Poor attendance can also result in grade penalties (see below). The grade distribution is as follows:

Assignments	25%
Quizzes	15%
Midterms	40% = 12% + 12% + 16%
Final Exam	20%

Attendance

It is necessary to regularly attend class in order to stay on top of the material. By standard policy, students missing more than 10% of the class meetings can have their overall grade lowered. After the third (3rd) absence, each absence may result in a deduction of 0.5 percentage points from the final grade. Do not forget to initial the roll sheet at the end of each class session. Leaving class early counts as an absence. Your three penalty-free absences should be saved for the unforeseen emergencies of life; I will not accept doctors' notes or other excuses aside from extenuating, long-term situations.

The final add/drop day is Friday 17 January. The last day to withdrawal from the course with a 'W' on the transcript, rather than a 'WF', is Monday 3 March.

Letter Grades

An 'A' in the class reflects superb mastery of the concepts; a 'B' reflects mastery; a 'C' demonstrates an average understanding of the material; a 'D' or 'F' shows a below average understanding of the material. Below is the quantitative breakdown of the aforementioned grades.

A+	[95%, 100%]	В	[80%, 85%)	D+	[65%, 70%)
А	[90%, 95%)	C+	[75%, 80%)	D	[60%, 65%)
B+	[85%, 90%)	C	[70%, 75%)	F	[0%, 60%)

Assignments

Assignments make up 25% of your grade. Most assignments will be completed online in WebAssign, and will generally be due one hour before the following Tuesday's class. You will often be provided with multiple attempts and problem solving resources on the problems. However, keep in mind that these resources will not be available on quizzes and tests. It is your responsibility to work through the homework problems in their entirety in order to gain mastery of the material. Students are encouraged to work together on homework, but each student must personally submit his or her own solutions in WebAssign. I will drop each student's lowest homework grade at the end of the course. There will be no make-up assignments.

Quizzes

Quizzes make up 15% of your grade. There will be at least one quiz per non-test week, usually at the beginning of class. The quizzes are intended to test you on material that has been covered in class and on homework, and to prepare you for the sorts of questions that will be on your exams. Each student is allowed one make-up quiz, to be scheduled with the instructor within a week of the original quiz date. I will drop each student's lowest quiz grade at the end of the course.

Exams

Exams make up 60% of the final grade. We will have a midterm approximately every three weeks, worth 12%, 12%, and 16% of your grade, respectively. The final exam is cumulative and worth 20% of the final grade.

Midterms 1,2,3	Thurdays 02/06, 03/06, 04/17
Final Exam	Saturday, May 3, 9:00 – 11:30

Course Topics

Dates	Section(s)	Торіс
01/14 - 02/04	1.1 – 1.3	Linear Functions and Models
	3.1 – 3.3	Systems of Linear Equations
	(4.2 –) 4.3	Matrix (Multiplication and) Inversion
02/11 - 03/04	4.1 - 4.2	Matrix Arithmetic
	A.1 – A.3	Logic
	6.1 – 6.2	Sets
03/09 - 03/16	S.B. – 20.14	Travel and Sunshine
03/18 - 04/15	6.3 - 6.4	Counting
	7.1 - 7.6	Probability
04/22 - 04/24	8.3	Measures of Central Tendency

Academic Honesty

Cheating and plagiarism will not be tolerated. You may discuss all assignments with others, but the work you submit must be your own. Exams are always independent tasks. Violations of this policy will be dealt with according to University guidelines. You can find the University Honor Code at http://sc.edu/academicintegrity/. The following are examples - not a comprehensive list - of actions considered as academic dishonesty:

- Turning in work copied (whole or in part) from another student or resource (print or electronic) as your own.
- Communicating with other persons or using unauthorized resources during tests and quizzes.

Additional Help

Math Tutoring Center

There is free drop-in tutoring at the Math Tutoring Center in LeConte 105: <u>http://www.math.sc.edu/mathlab.html</u>. This service will be available Monday through Thursday, 10 am – 3 pm. The site also provides a list of private tutors if you wish to pay for private tutoring.

Instructor Office Hours

My office is LeConte 123B. My office hours are Wednesday, 9:30 - 11:30 am. I will also be in the Tutoring Center (LC 105) on Thursday afternoon 1 - 3 pm. Office hours are a time when the professor is available and no appointments are necessary. If you want to meet any other time, email me and we can schedule and appointment.

Student Success

The Student Success Center (<u>http://www.sa.sc.edu/ssc/</u>) provides numerous other student resources, including Peer Tutoring, Online Tutoring, Academic Recovery, Drop-in Tutoring, and Early Intervention.



Venn pie-agram from http://i.imgur.com/WXkQB.jpg