

Finite Mathematics

Math 105 – Fall 2007

Course Information

Website: <http://www.math.cornell.edu/~web105/>

Assignments, and other important course information will be posted here throughout the semester – so check this webpage frequently!!!

Instructor: Jessica Zuniga Office: Math Dept. - 102 Malott Hall Office Hours: **TBA**

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Instructor: Al Schatz Office: Math Department - 557 Malott Hall Office Hours: **TBA**

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Instructor: Paul Hurtado Office: Cntr for Applied Math. - 657 Rhodes Hall Office Hours: **TBA**

Contact: ph62@cornell.edu

Text: “Finite Mathematics” by Lial, Greenwell, & Ritchey 8th ed. (+Optional solutions manual)

Note: Students can attend the office hours of any instructor, and are encouraged to attend office hours during the semester.

Homework & Exams

There will be weekly homework assignments due Mondays (see the webpage for the most current assignment schedule). Homework will be graded and returned, and count for 10% of the final grade.

Grades

Grades will be computed from the 3 prelims (100pts each), the final (150 pts), and the homework/section grade (50 pts). There are no scheduled make up exams, and exams missed due to illness or other circumstances (see the University policy) will be dealt with on an individual basis.

Instructors are to be notified in the event that a student knows they will miss an exam ahead of time.

Math 005

Math 005 is a companion course for Math 105, and all students are encouraged to attend. Please see the Math 005 handout for more information, or contact your instructor.

Blackboard

Your instructor may or may not choose to use Blackboard for this course. If so you will receive more information from your instructor.

Calculators

Calculators will not be used in any systematic way in this course, and will not be allowed on any of the exams. A calculator will not be necessary for this course, but may be useful for simple calculations.

Academic Integrity

The work you submit in Math 105 is expected to be the result of your individual effort only. Students are expected to uphold the standards of academic integrity expected under the University Code.

You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students.

However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e mail attachment file, a diskette, or a hard copy.

Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action.

During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.

Accommodations for students with disabilities

In compliance with the Cornell University policy and equal access laws, I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances, so arrangements can be made. Students are encouraged to register with Student Disability Services to verify their eligibility for appropriate accommodations.

Course Schedule

August 24th – 1.1, 1.2, Linear Functions

August 27,29,31 – 1.3 Least Square line; 2.1, 2.2 Solutions of Linear Equations

September 3,5,7 – 2.2 Solutions of Linear Equations; 2.3, 2.4 Operations on matrices

September 10, 12, 14 – 7.1, 7.2 Set Theory; 7.3, 7.4 Basic Concepts of Probability

September 17, 19, 21 – Conditional Probability

September 24 – Review.

Prelim 1 will be held 9/25/07 from 7:30-9:00pm in room 196 Morrison Hall.

September 26, 28 - 7.5 Conditional Probability; 7.6 Bayes Theorem

October 1,3,5 – 8.1 Permutations, 8.2 Combinations

Fall Break 10/06/07-10/09-07

October 10,12 – 8.3 Applications of Counting Principles

October 15, 17, 19 – 8.4 Binomial Probability; 8.5 Probability Distribution, Expected Value

October 22, 24, 26 – 9.1, 9.2 Measure of Central Tendency and Variation; Review Prelim 2

Prelim 2 will be held 10/25/07 from 7:30-9:00pm in the Schwarz Auditorium, Rockefeller Hall.

October 29, 31, November 2 – 9.3 Variation of the Normal Distribution; 9.4 Normal Approximation of the Binomial Distribution

November 5, 7, 9 – 10.1 Basic Properties of Markov Chains

November 12, 14, 16 – 10.2 Regular Markov Chains and Convergence to Equilibrium

November 19, 21 – Review for Prelim 3

Prelim 3 will be held Tuesday, November 27th 7:30-9:00pm in room Plant Science 233

The Final Exam will be held December 6th at 2pm

Homework Assignments

Hw1, due September 3

1.1: 20, 26, 36

1.2: 22, 28

1.3: 14, 18

2.1: 8, 26

Hw2, due September 10

2.2: 22, 34, 46

2.3: 6, 22, 28

2.4: 20, 22, 28, 30

2.5: 8, 20, 38

Hw3, due September 17

Review Exercises pgs. 120-126, #6, 10, 24, 54

7.1: 34, 38, 54

7.2: 22, 26, 36

First evening Prelim Tues, September 25 – No HW due Monday, September 24th.

Hw4, due October 1

7.4: 16, 18, 54, 58, 62

7.5: 8, 14, 36, 42

Hw5, due October 8

7.6: 4, 10, 18, 24, 34

8.1: 16, 22, 28, 42ade, 52ab

Hw6, due October 15

8.2: 10, 14ab, 22, 30, 34

8.3: 4, 10, 16, 42, 50abd, 54

Hw7, due October 22

Ch. 7 Review Examples, pgs. 384-385, #44, 60, 72, 78

Ch. 8 Review Examples, pgs. 446-451, #4ad, 8, 14, 20, 24

Prelim 2 on Thursday October 25th. Homework still due Monday before and after the prelim.

Hw8, due October 29th

8.4: 22, 40, 64

8.5: 4, 14, 20, 40

Hw9, due November 5th

9.1: 4, 10, 20, 38a, 44

9.2: 8, 10, 30

Hw10, due November 12th

9.3: 10, 18, 26, 38, 50

9.4: 14, 20, 24, 32

Hw11, due November 19th

10.1: 12, 18, 22, 30, 34

10.2: 10, 12, 30, 38

Prelim 3 on November 27th - no homework due Monday of the last week of class.