Math 1030 - Spring 2011

Common Page

This page contains information that is common to all sections of Math 1030 begin taught. For more specific/detailed information please see your instructors website and/or syllabus. A list of the sections and the instructors is given below.

Text: Mathematics Beyond the Numbers, Custom Ed, by Gilbert and Hatcher

This course will stress problem solving skills and the development of reasoning skills in an interactive setting. The mathematics involved is not difficult, but most of it is not routine either. We will see how some of this mathematics allows us to better understand the world surrounding us. As much of the class time will be devoted to active participation in discovering solutions to problems, regular attendance and class participation can enter into the final grade, especially in pass/fail situations.

Exams: There will be three one hour in-class exams. A cumlative final will take place during the Math block. This is tentatively scheduled for Friday May 6.

Grading: The grading scheme is set by you instructor, see the syllabus for your section.

Extra Help: Please make use of offce hours and/or the Q Center (www.qcenter.uconn.edu) if you experience difficulty with course material after it is covered in class. Students who actively read the material, try the book examples, do the homework exercises, and seek help when they encounter difficulties tend to learn more, and this is reflected in the final grade.

Section	Instructor	Room	Time
001	Lucas David-Roesler	MSB 303	TuTh 8:00 -- 9:15
004	Gerald Leibowitz	MSB 411	MoWeFr 1:00 -- 1:50
005	Gerald Leibowitz	MSB 311	MoWeFr 10:00 -- 10:50
002	Nina Pham	MSB 407	MoWeFr 12:00 -- 12:50
003	Nina Pham	MSB 415	MoWeFr 3:00 -- 3:50

* The table is ordered by the instructors last name.

Mathematics 1030Q.004 and .005 Spring 2011

The University of Connecticut/Storrs

Text: *Mathematics: Beyond the Numbers*, by Gilbert and Hatcher, Custom edition.

Click here for the link to the syllabus and homework assignments.
The academic integrity statement in the Student Conduct Code
Notes on text Section 1.1.
Notes on text Section 1.2.
Introduction to compound interest. Section 3.3.
Geometric progressions - the mathematics underlying the systematic savings formula of Sec. 3.4.
Introduction to text Section 3.5: Loans.
Finding a loan balance.
Finding a loan balance using an amortization table.
Introduction to Section 4.4, Conditional Probability and the related topic, (Probabilistically) Independent Events.

Exams
Exam 1 topics list. Exam 1 date: Friday, February 11.
Exam 2 topics list. Exam 2 date: Friday, March 18.
Exam 2 formulas list
Exam 3 topics list. Exam 3 date: Monday, April 18.
Final Exam Study Guide.
Final exam date: Friday, May 6, 2011
Time: 3:30-5:30 PM
Room: ITE Building, Room C80.

Grades
Homework is assigned but will not be collected, and there will be no quizzes or extra credit projects.
If you have questions about the text explanations or homework, please ask me, either by e-mail or
in person during my office hours, Mon Wed Fri 11-noon and by arrangement, in MSB 220.
In determining a student's numerical average for the course, each of the in-class exams and the final exam will count equally.
Letter grades will be close to 90+ = A, 80+ = B, etc.

Dr. G.M. Leibowitz
April 8, 2011

MATH 1030Q: ELEMEMENTARY DISCRETE MATHEMATICS, Sec. 04-05 --- SYLLABUS

TEXT: Mathematics Beyond the Numbers, by Gilbert and Hatcher
(Publisher: J. Wiley & Sons, Inc.; 2000 edition or custom edition)
RESTRICTION: Not open for credit to students who have passed any Mathematics course other than MATH 1010, 1020, 1070, 1040, 1050 or 1060.

WEEK	SECTIONS	TOPICS	HOMEWORK PROBLEMS
1	1.1	Plurality & Runoff Methods	15/1,3,6,7,11
	1.2	Borda's Method	28/1,3,5,12
	1.3	Head-to-Head Comparisons	39/1,7,9,15
2	1.4	Approval Voting	51/2,3,5,11
	1.5	An Ideal System	61/1-5
	2.1	Quota Methods	80/1,2,7,9
3	2.2	Divisor Methods	99/1,3,5,11
	2.3	House of Representatives	112/7,9
	2.4	An Ideal System	120/5,7
4	3.1	Powers & Exponentials	133/1--29 odd
		Review	67/4; 123/1; 133/6,12
		EXAM 1	
5	3.2	Simple Interest	138/1,7,11,15,17,21,23,27,30
	3.3	Compound Interest	150/1,5,9,13,17,21,38
	3.4	Systematic Savings	161/1,5,9,13,15
6	3.5	Amortized Loans	174/5,9,13,17,30
	4.1	Elementary Probability	192/1,3,5,9,13,17,19,23,29
	4.2	Odds	200/1,3,5,7,11,17
7	4.3	The Addition Rule	205/1,5,7,11,13,15
	4.4	Conditional Probability	215/1,7,11,13,19,27,34
	4.5	Counting Techniques	232/1,5,9,12,21
8	4.6	More Probability	242/1,5,9,13,21,25,28
		Review	
		EXAM 2	
9	4.7	Expected value	248/3,5,9,15
	4.8	Genetics	260/1,5,7,11,17,21
10	6.1	Euler Paths and Circuits	375/1,5,7,13,15
	6.2	Traveling Salesman	396/1,5,7,15,19

11	6.3	Spanning Trees	411/1,3,5,7,11,21
	8.1	Divisibility, Primes	479/1,5,13,21,29,35,39,49,55
	8.2	Modular Arithmetic	486/1,9,17,25,33
12	8.3	Divisibility Tests	493/1,7,15,17,25
		Review	
		EXAM 3	
13	8.4	Check Digits	502/1,5,9,13,17
	8.6	Cryptology	521/1,3,5,9,15
14	8.7	Advanced Cryptology	532/1,5,9,13,18
		Review	