

MATH 109- SPRING 2011

Week Dates	Lecture	Topic & Page	Homework Assignments
Week 1 1/18 – 1/21	RATIONAL FUNCTIONS		
	Lec 1	Pages 1-7	Homework: p.7-8 ex 1,2; p.7 Mod.Ex. C1,C2,C3
	Lec 2	Pages 9-12	including Mod Ex. d1,d2,d3. Homework: p.8 hw 3, p.13 hw ex 1,2
	Lec 3	Pages 15-17	top including CE on page 17 top. Homework: p.17 hw 1,3; p.15 hw 5
Week 2 1/24 – 1/28	REC 1	Page 8	Page 8 Miscellaneous Assignment ex 1-3
	RATIONAL FUNCTIONS, SLANT ASYMPTOTES, RADIAN MEASURE , PULLEYS, TRIGONOMETRIC FUNCTIONS OF ANGLES IN ALL QUADRANTS		
	Lec 4	Pages 17-25	pages 17-25 top. Homework: p.26 CE, p.27 hw 1, p.14 hw ex 3,4
	Lec 5	Pages 25-26	Mod. Ex Continue on pages 40-46 top [Note sec. 8.4 pages 30-39 is to be skipped]. Homework: p.47-48 ex 1,4,5; p.17 ex2, p.27 ex 3, p.28 ex 5
	Lec 6	Pages 48-55	pages 48-55 top. Homework: p.55 CE ex 1,2,3 □ hw ex 2,3,10,11; p.48 ex2; p.28 ex 2,4
	REC 2	Pages 28-29	Pages 28-29 Miscellaneous Assignments ex1-6
Week 3 1/31 – 2/4	APPLICATIONS TO ROLLING WHEELS		
	Lec 7	Pages 55-60	Homework: p.48 ex3; p.55 ex 4,6,12; p.61 ex 1,2; p.60 CE1,2,3
	Lec 8	Pages 61-65	Homework: p.48 ex7; p.55 ex 1,8; p.50 ex3; p.66 ex 1,4,5; p.61 ex 3,5
	Lec 9	Pages 65-66	do CE on the bottom of 65 and problem 8 on page 66. Homework: p.66 ex 2,3,6,7; p.48 ex 6; p.55 ex 5,9;p.61 ex 4
	REC 3	Page 67	Page 67 Miscellaneous Assignment ex 1-8
Week 4 2/7 – 2/11	Lec 10	STUDENT INITIATED REVIEW SESSION FOR COMMON EXAM 1	
	▶	REVIEW FOR EXAM #1	▶ STUDY FOR EXAM #1

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	▶	MIDTERM EXAM I: WEDNESDAY ~ FEBRUARY 9, 2011	
	▶	GO OVER EXAM #1	
	GRAPHING TRIGONOMETRIC FUNCTIONS WITH PHASE ANGLES, TRIGONOMETRIC IDENTITIES AND EXPANSIONS, THE HALF ANGLE FORMULAS, FINDING THE AREA UNDER AN ARCH OF A SINE OR COSINE CURVE		
	Lec 11	Pages 68-72	Homework: p.72▶ CE 1, hw ex 2,4; p.55▶ ex 7; p.60▶ CE 2
	Lec 12	Pages 72-83	Homework: p.66▶ ex 2; p.72▶ hw ex 3 ◻ CE 2; p.79▶ CE 2; p.83▶ hw ex 2,5
Week 5 <small>2/14 – 2/18</small>	REC 4	Pages 83-84	Pages 83-84 ex 1-5
	PARTIAL FRACTION DECOMPOSITIONS, SKETCHING GRAPHS IN POLAR COORDINATES		
	Lec 13	Pages 84-89	Homework: p.66▶ ex 6,7; p.79▶ hw ex 1; p.83▶ CE 1, hw ex 8; p.89-90▶ CE 1 ◻ hw ex 3,4
	Lec 14	Pages 91-97	Homework: p.79▶ 3; p.83▶ hw ex 1,6; p.90▶ 5,8; p.98▶ 1,3; p.97▶ CE 1
	Lec 15	Pages 98-105	Homework: p.101▶ CE 2, hw 1; p.105▶ CE 1 ◻ hw.2; p.90▶ 9; p.83▶ 7
Week 6 <small>2/21 – 2/25</small>	REC 5	Page 98	Page 98▶ hw ex 5,7; p.97▶ CE 1; p.89▶ hw ex 1,2; p.79▶ evaluate completely including the substitution of limits hw 2,4
	AREAS IN POLAR COORDINATES, THE NATURAL LOGARITHM FUNCTION		
	Lec 16	Pages 108-113	Homework: p.113▶ CE.1 ◻ hw 2; p.105▶ hw 2,3; p.102▶ 2,4; p.98▶ 6; p.90▶ 10
	Lec 17	Pages 113 -120	Homework: p.120▶ hw 1,2 ◻ CE1; p.106 top▶ 4,6; p.102▶ 3,6,7; p.98▶ 4,6; p.90▶ 6
	Lec 18	Pages 121-126	Homework: p127top▶CE1, hw 2; p120▶4; p90/7
Week 7 <small>2/28 – 3/4</small>	REC 6	Pages106-107	Pages 106-107 Miscellaneous Assignment, read ex 1 and then carefully read the instructions and work the remaining problem groups, 1-3 and then 4-7.
	LOGARITHMIC FUNCTIONS AND THEIR GRAPHS		
	Lec 19	Pages 128-137	Homework: p.137▶ CE 1 ◻ hw 1; p.135▶ CE ◻ Mod 1 ◻ hw2; p.127▶ hw ex 5; p.120▶ 3; p.90▶ 9
	Lec 20	Pages 137-140	Homework: p.140▶ CE1; p.137▶ hw2; p.127 top▶ 3

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	Lec 21	Pages 137-140 continued	Homework: p.135▶ hw 3; p.137▶ 4, p.140▶ hw ex 1
Week 8 <i>3/7 – 3/11</i>	REC 7	Page 127	Page 127 Miscellaneous Assignment ex 1-5
	Lec 22	STUDENT INITIATED REVIEW SESSION FOR COMMON EXAM 2	
	L▶	REVIEW FOR EXAM #2	L▶ STUDY FOR EXAM #2
	L▶	MIDTERM EXAM II: WEDNESDAY ~ MARCH 9, 2011	
	L▶	GO OVER EXAM #2	
	THE TANGENT, COTANGENT, SECANT AND COSECANT FUNCTIONS		
	Lec 23	Pages 142-149	Homework: p.146▶ hw 1,3 ◻ CE; p.149▶ 1,4; p.141▶ hw ex 3
Lec 24	Pages 149-158	Pages 149-158 – middle of page. Homework: p.155▶ hw 1 ◻ CE 1; p.151▶ hw 1,2,3; p.149▶ hw 2; p.146▶ hw 2;p.140▶ 2	
Week 9 <i>3/14 – 3/18</i>	L▶	SPRING RECESS: MARCH 13-19, 2011	
Week 10 <i>3/21 – 3/25</i>	REC 8	Page 141	Page 141 Miscellaneous Assignment ex 1-5
	THE SECANT FUNCTION, EXPRESSING LINEAR COMBINATIONS OF SINE AND COSINE FUNCTIONS WITH THE SAME ANGULAR VELOCITY AS SINGLE SINE OR COSINE FUNCTIONS WITH PHASE ANGLES		
	Lec 25	Pages 158 -163	Homework: p.155▶ hw 2; p.161▶ mod 1,2,3,4 ◻ hw 1
	Lec 26	Pages 163-165	Homework: p.165▶ CE mod 1-5 ◻ hw 1,3; p.161▶ hw ex 2
	Lec 27	Pages 193-199	Homework: p.198-199▶ hw 1,2,4; p.161▶ hw 3; p.151▶ CE 1; p.149▶ 3; p.146▶ 1
Week 11 <i>3/28 – 4/1</i>	L▶	LAST DAY TO WITHDRAW FROM THIS COURSE	
	REC 9	Page 151	Page 151▶ Miscellaneous Assignments a,b,c, and ex 2-5
	THE INVERSE SINE FUNCTION, THE ELLIPSE		
Lec 28	Pages 230-235	pages 230-235 middle of page. Homework: p.235▶ CE 1,2; p.242▶ 1,3,5; p.242▶ 1,3,5; p.199▶ hw 3,5; p.165▶ hw ex 5	

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	Lec 29	Pages 235-239	Homework: p.242▸ ex 7,8,10-Parts a,b, and c, but do not check as asked in part b; p.199▸ hw 6
Week 12 <i>4/4 – 4/8</i>	REC 10	Pages165-166	Page 166▸ Miscellaneous Assignments ex 1,2,3; p.165▸ hw ex 4
	THE ELLIPSE		
	Lec 30	Pages 240-241	pages 235 -239 review and pages 240-241. Homework: p.241▸ CE; p.242▸ 9,11 parts a,b and c including the check asked for in part b
	Lec 31	Pages 167-174	Homework: p.174▸ CE 1 ▣ hw ex 1,2; p.170▸ CE ▣ hw ex 1,2; p.242▸ 12
	Lec 32	Pages 174-180	Homework: p.180▸ mod ex 1-5; p.181▸ hw 2; p.174▸ hw 3
Week 13 <i>4/11 – 4/15</i>	REC 11	Page 199	Page 199 Miscellaneous Assignments ex 1-5; p.165▸ hw ex 2
	Lec 33	STUDENT INITIATED REVIEW SESSION FOR COMMON EXAM 3	
	L▶	REVIEW FOR EXAM #3	L▶ STUDY FOR EXAM #3
	L▶	MIDTERM EXAM III: WEDNESDAY ~ APRIL 13, 2011	
	L▶	GO OVER EXAM #3	
	THE HYPERBOLA		
	Lec 34	Pages 174-180	pages 174-180 review. Homework: p.181▸ hw 1,4; p.171▸ 3,5; p.174▸ hw 4
Lec 35	Pages 182-188;	Homework: p.189▸ 1,3,4,5,6; p.187▸ CE 1 ▣ hw ex 1,4,5	
Week 14 <i>4/18 – <u>4/22</u></i>	REC 12	Page 181	Page 181▸ Miscellaneous Assignment 1-4; p.189▸ 10
	THE LAW OF COSINES, HERON'S FORMULA		
	Lec 36	Pages 189-192:	Homework: p.191▸ hw 1,2,3; p.192▸ hw 1,2; p.187▸ hw 6; p.189▸ 9
	Lec 37	Pages 208-213	Homework: p.213▸ Mod ex 1, parts 1-4; p.214▸ 1; p.192▸ 3; p.189▸ 2
Lec 38	Pages 214-222	Homework: p.222▸ hw ex 1,2 parts 1-5 for each; p.214▸ 2; p.189▸ 8	
<u>4/22</u>	L▶	GOOD FRIDAY ~ UNIVERSITY CLOSED	

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Week 15 <small>4/25 – 4/29</small>	REC 13	Page 243	Page 243▸ Miscellaneous Assignments ex 1-5
	THE INVERSE TANGENT FUNCTION		
	Lec 39	Pages 222-229	Homework: p.229▸ hw 1,2,3; p.227 ▫ hw 1,2,3; p.222▸ hw ex 3
	Lec 40	Pages 244-250	Homework: p.250▸ hw 1,2,3; p.248▸ CE 1,2 ▫ hw 1,2,3; p.254▸ hw 5
	Lec 41	Pages 251-254	Homework: p.254▸hw 1,3,6,8
Week 16 <small>5/2 – 5/4</small>	REC 14	Page 251	Study and write up Illustrative Example 3 starting on page 251. Work Exercises p.254▸ 2,4,5,7
	Lec 42	REVIEW FOR FINAL EXAM	↳ STUDY FOR FINAL EXAM
	↳	TUE MAY 3 CLASSES FOLLOW A FRIDAY SCHEDULE	
	↳	5/4 READING DAY	
Finals	FINAL EXAM WEEK: MAY 5-11, 2011		