## Math 243 Calculus III Syllabus Fall 2015

Week	Date		Topic	$\mathbf{Homework} \; (\mathrm{odd} \; \mathrm{problems} \; \mathrm{only})$			
	F	8/21	3-D Coordinates	[12.1] 7-17, 23-43			
4	Μ	24	Vectors	$[12.2]\ 5\text{-}9,\ 17\text{-}27,\ 41,\ 43,\ 51$			
	Τ	25	Mathematica Lab #1 – Tutorial (due $9/1$ )				
	W	26	Dot Product	$[12.3]\ 1\text{-}23,\ 27\text{-}31,\ 55\text{-}61$			
	F	28	Cross Product	$[12.4]\ 1\text{-}35,\ 43,\ 47,\ 49,\ 53$			
	M	31	Lines and Planes	[12.5] 1-9, 13, 19-43			
•	Τ	9/1	More Lines and Planes	[12.5] 45, 47, 51-57, 61-73, 79			
	W	2	Quadric Surfaces	$[12.6]\ 17,\ 1131,\ 43,\ 45$			
	F	4	Quiz #1: Vectors				
	M	7	(LABOR DAY)				
•	Τ	8	Mathematica Lab #2 – A Triangle in Space (due $9/16$ )				
	W	9	Parametric Equations	$[10.1]\ 1\text{-}15,\ 25,\ 27,\ 41,\ 43\ [13.1]\ 7\text{-}11,\ 15,\ 21\text{-}29,\ 43$			
U	F	11	Parametric Slope and Area	[10.2] 1-5, 11-15, 25, 29-33			
4	M	14	Velocity and Acceleration	$[13.2]\ 3\text{-}13,\ 17\text{-}25,\ 29\text{-}33\ [13.4]\ 1\text{-}19$			
	Τ	15	(VALUI	ES DAY)			
4	W	16	Arc Length and Curvature	[13.3] 1-11, 21-33, 39			
	F	18	Vector Fields	[16.1] 1-5, 11-17			
	M	21	<b>Review</b> [10R] 1-7, 21, 25, 37 [12R] 1-11, 15-21, 25-37 [13R] 1, 3, 7, 9, 13, 17				
	Τ	22	Test #1: Vectors and Parametric Curves				
	W	23	Contours	[14.1] 7, 33, 35, 39-51, 59-63			
	F	25	Partial Derivatives	[14.3] 3-9, 15-45, 53-75			
	M	28	Tangent Planes	[14.4] 1-5, 11-15, 19			
	Τ	29	Chain Rules	[14.5] 1-25, 45, 47			
	W	30	Directional Derivatives	[14.6] 1-5, 11-19, 35			
V	F	10/2	The Gradient	$[14.6]\ 7,\ 9,\ 21\text{-}25,\ 29,\ 33,\ 37,\ 39$			
	M	5	Quiz #2: Partial Derivativ	es			
7	${ m T}$	6	Second Derivative Test	[14.7] 1-17, 29-33			
	W	7	Max/Min Problems	[14.7] 39-55			
	F	9	(FALL 1	BREAK)			

Week	Dat	te	Topic	Homework		
	M	12	More Max/Min Problems	worksheet		
T 13			Mathematica Lab #3 – Analysis Of A Surface (due 10/21)			
	W	14	Lagrange Multipliers	[14.8] 1-13, 29-37		
$\cup$	F	16	More Lagrange Multipliers	$[14.8]\ 15-21,\ 25,\ 27,\ 39-43$		
	${\bf M}$	19	<b>Review</b> [14R] 5, 7, 11-2	1, 25a, 35-39, 43-55, 59-65		
( )	${ m T}$	20	Test #2: Partial Derivatives and Applications			
$\mathcal{A}$	W	21	Double Integrals	[15.1] 1-13, 17		
	F	23	Iterated Integrals	[15.2] 1-21, 25-31, 37		
	M	26	Non-Rectangular Regions	[15.3] 1-9, 15-31		
	T 27 Mathematica Lab #4 – Numerical Integration (due 11/2)					
	W	28	Reversing the Order	[15.3] 43-53, 57		
	F	30	Quiz #3: Double Integrals			
	$\mathbf{M}$	11/2	Polar Coordinates	[10.3] 7-47, 65		
	${ m T}$	3	Polar Slope and Arc Length	[10.3] 55-63 [10.4] 45, 47		
	W	4	Polar Area	[10.4] 1-29		
	• F	6	Polar Double Integrals	[15.4] 1-31, 39		
•	M	9	Centers of Mass	[15.5] 1-15		
6	Т	10	10 Mathematica Lab #5 – A Polar Curve (due 11/16)			
	W	11	Surface Area	[15.6] 1-11		
	F	F 13 Quiz #4: Polar Coordinates and Applications				
	${\bf M}$	16	Triple Integrals	[15.7] 3-21		
6)	$_{ m T}$	17	More Triple Integrals	[15.7] 29-37, 41		
1 , 1	W	18	Change of Variables	[15.10] 1-19, 23-27		
LU	F	20	More Change of Variables	worksheet		
	${\bf M}$	23	Cylindrical Coordinates	[15.8] 17-23, 29		
	${ m T}$	24	Spherical Coordinates	[15.9] 21-27, 39		
	_ W	25	(THANI	KSGIVING BREAK)		
	F 27  M 30  T 12/1		(THANKSGIVING BREAK)  Review [10R] 9-17, 23, 31-39 [15R] 1-31, 35ab, 39, 41, 47-51  Mathematica Exam			
	W	2	Test #3: Multiple Integrals	3		
	F	4	Review for Final Exam			
	M	7	<b>Final Exam</b> (9-11 am)			