

## Math 1ZZ5 Course Calendar

<b>Week 1: January 5-9, 2009</b>	
Lecture 1	5.1 Areas and Distances
Lecture 2	5.2 The Definite Integral
Lecture 3	5.3 The Fundamental Theorem of Calculus
Lecture 4	5.5 The Substitution Rule
<i>Lecture 5</i>	<i>Problem Session/Review</i>
<b>Week 2: January 12-15, 2009</b>	
Lecture 6	6.1 Areas Between Curves
Lecture 7	6.2 Volumes
Lecture 8	6.4 Work
Lecture 9	6.5 Average Value of a Function 7.1 Integration by Parts
<i>Lecture 10</i>	<i>Problem Session/Review</i>
<b>Week 3: January 19-23, 2009</b>	
<b>MAPLE LAB #1 Due Date:</b> 12:00 midnight on Tuesday January 20	
Lecture 11	7.1 Integration by Parts (continued)
Lecture 12	7.2 Trigonometric Integrals
Lecture 13	7.3 Trigonometric Substitution
Lecture 14	7.4 Integration of Rational Functions by Partial Fractions (omit rationalizing substitutions)
<i>Lecture 15</i>	<i>Problem Session/Review</i>
<b>Week 4: January 26-30, 2009</b>	
<b>TEST 1: Evening of Thursday January 29</b>	
Lecture 16	7.4 Integration of Rational Functions by Partial Fractions (Continued) 7.8 Improper Integrals
Lecture 17	7.8 Improper Integrals (Continued)
Lecture 18	11.3 The Integral Test and Estimates of Sums
Lecture 19	11.3 The Integral Test and Estimates of Sums (Continued) 8.1 Arc Length
<i>Lecture 20</i>	<i>Problem Session/Review</i>
<b>Week 5: February 2-6, 2009</b>	
<b>MAPLE LAB #2 Due Date:</b> 12:00 midnight on Tuesday February 3	
Lecture 21	8.2 Area of a Surface of Revolution
Lecture 22	8.3 Applications to Physics and Engineering (only hydrostatic force and pressure)
Lecture 23	8.5 Probability
Lecture 24	9.3 Separable Equations
<i>Lecture 25</i>	<i>Problem Session/Review</i>
<b>Week 6: February 9-13, 2009</b>	
<b>TEST 2: Evening of Thursday February 12</b>	
Lecture 26	9.5 Linear Equations
Lecture 27	10.1 Curves Defined by Parametric Equations
Lecture 28	10.2 Calculus with Parametric Curves
Lecture 29	10.2 Calculus with Parametric Curves Cont'd

Lecture 30	Problem Session/Review
<b>WEEK 7: READING WEEK, FEBRUARY 16-20</b>	
<b>Week 8: February 23-27, 2009</b>	
<b>MAPLE LAB #3 Due Date:</b> 12:00 midnight on Tuesday February 24	
Lecture 31	10.3 Polar Coordinates
Lecture 32	10.4 Areas and Lengths in Polar Coordinates
Lecture 33	14.1 Functions of Several Variables
Lecture 34	2.3 (Squeeze Theorem only) 14.2 Limits and Continuity (omit Definition 1 and use the Squeeze Theorem in place of the precise definition to prove the existence of limits)
Lecture 35	Problem Session/Review
<b>Week 9: March 2-6, 2009</b>	
<b>Test 3 (Midterm Exam):</b> Evening of Thursday March 5	
Lecture 36	14.3 Partial Derivatives (Omit the Cobb-Douglas production function)
Lecture 37	14.4 Tangent Planes and Linear Approximations
Lecture 38	14.5 The Chain Rule
Lecture 39	14.6 Directional Derivatives and the Gradient Vector (omit tangent planes to level surfaces and significance of the gradient vector)
Lecture 40	Problem Session/Review
<b>Week 10: March 9-13, 2009</b>	
<b>MAPLE LAB #4 Due Date:</b> 12:00 midnight on Tuesday March 10	
Lecture 41	Appendix H: Complex Numbers
Lecture 42	Appendix H: Complex Numbers
Lecture 43	15.1 Double Integrals over Rectangles
Lecture 44	15.2 Iterated Integrals
Lecture 45	Problem Session/Review
<b>Week 11: March 16-20, 2009</b>	
Lecture 46	15.3 Double Integrals over General Regions
Lecture 47	7.6 Vector Spaces
Lecture 48	7.6 Vector Spaces Cont'd
Lecture 49	7.7 Gram-Schmidt Orthogonalization Process
Lecture 50	Problem Session/Review
<b>Week 12: March 23-27, 2009</b>	
<b>Test 4:</b> Evening of Thursday March 26 <sup>th</sup>	
Lecture 51	8.1 Matrix Algebra
Lecture 52	8.2 Systems of Linear Algebraic Equations
Lecture 53	8.2 Systems of Linear Algebraic Equations Cont'd
Lecture 54	8.3 Rank of a Matrix
Lecture 55	Problem Session/Review
<b>Week 13: March 30-April 3, 2009</b>	
<b>MATLAB LAB #5 Due Date:</b> 12:00 midnight on Tuesday March 31	
Lecture 56	8.4 Determinants 8.5 Properties of Determinants

Lecture 57	8.5 Properties of Determinants Cont'd 8.6 Inverse of a Matrix
Lecture 58	8.6 Inverse of a Matrix Cont'd
Lecture 59	8.7 Cramer's Rule
<i>Lecture 60</i>	<i>Problem Session/Review</i>
<b>Week 14: April 6,7</b>	
Lecture 61	Review
Lecture 62	Review