Math 1ZA3 Course Calendar

Week 1: September 8-9, 2011	
Lecture 1	Introduction 1.3 New Functions from Old Functions
Week 2: September 12-16, 2011	
Lecture 2	1.3 New Functions from Old Functions (Continued) 1.6 Inverse Functions and Logarithms
Lecture 3	1.6 Inverse Functions and Logarithms (Continued)
Lecture 4	1.6 Inverse Functions and Logarithms (Continued) 2.2 The Limit of a Function
Tutorial	*Review of Trigonometry (Appendix D)*
Week 3: September 19-23, 2011	
MAPLE LAB #0: Do the introductory Maple Lab. (Not to be handed in, but should be completed no later than Friday Sept. 23rd)	
Lecture 5	2.2 The Limit of a Function (Continued) 2.3 Calculating Limits Using Limit Laws (omit the Squeeze Theorem)
Lecture 6	2.5 Continuity (omit the Intermediate Value Theorem) 2.6 Limits at Inifnity; Horizontal Asymptotes (omit precise definitions)
Lecture 7	2.7 Derivatives and Rates of Change 2.8 The Derivative as a Function
Tutorial	*Problem Session/Review*
Week 4: September 26-30, 2011	
MAPLE LAB #1 Due Date: 11:59pm on Friday Sept. 30th	
Lecture 8	3.1 Derivatives of Polynomials and Exponential Functions 3.2 The Product and Quotient Rule 3.3 Derivatives of Trigonometric Functions
Lecture 9	3.4 The Chain Rule
Lecture 10	3.5 Implicit Differentiation (Note: Do Exercise 67(a) from the 6th Edition or 77(a) from the 7th Edition in 3.5, or state the result in class) 3.6 Derivatives of Logarithmic Functions
Tutorial	*Problem Session/Review*
Week 5: October 3-7, 2011	
TEST 1: Evening of Wednesday October 5th	
Lecture 11	3.6 Derivatives of Logarithmic Functions (Continued) 3.11 Hyperbolic Functions
Lecture 12	4.1 Maximum and Minimum Values
Lecture 13	4.3 How Derivatives Affect the Shape of a Graph
Tutorial	*Problem Session/Review*

Week 6: October 11-14, 2011	
THANKSGIVING WEEK (Holiday Monday, October 10th)	
MAPLE LAB #2 Due Date: 11:59pm on Friday Oct. 14th	
Lecture 14	4.4 Indeterminate Forms and L'Hospital's Rule
Lecture 15	4.5 Summary of Curve Sketching
Tutorial	*Problem Session/Review*
Week 7: October 17-21, 2011	
Lecture 16	4.7 Optimization Problems
Lecture 17	4.8 Newton's Method
Lecture 18	4.9/5.4* Antiderivatives *Introduce indefinite integral notation from Section 5.4 while doing 4.9; but otherwise do not do anything from 5.4
Tutorial	*Problem Session/Review*
Week 8: October 24-28, 2011	
Test 2 (Midterm Exam): Evening of Wednesday October 26th	
Lecture 19	9.1 Modeling With Differential Equations 3.8 Exponential Growth and Decay (omit continuously compounded interest)
Lecture 20	3.8 Exponential Growth and Decay (continued) Appendix E (Including Mathematical Induction)
Lecture 21	Appendix E (continued)
Tutorial	*Problem Session/Review*
Week 9: October 31 – November 4, 2011	
MAPLE LAB #3 Due Date: 11:59pm on Friday Nov. 4th	
Lecture 22	11.1 Sequences (omit Definition 2)
Lecture 23	11.1 Sequences (continued) 11.2 Series
Lecture 24	11.2 Series (continued) 11.3 (Only the p-series result given in box 1)
Tutorial	*Problem Session/Review*
Week 10: November 7-11, 2011	
Lecture 25	11.4 The Comparison Tests (omit estimating sums)
Lecture 26	11.5 Alternating Series
Lecture 27	11.6 Absolute Convergence and the Ratio and Root Tests
Tutorial	*Problem Session/Review*
Week 11: November 14-18, 2011	
MAPLE LAB #4 Due Date: 11:59pm on Friday November 18th	
Lecture 28	11.8 Power Series
Lecture 29	11.9 Representations of Functions as Power Series (omit Example 8(b))
Lecture 30	11.10 Taylor and Maclaurin Series (omit multiplication and division of power series)
Tutorial	*Problem Session/Review*

Week 12: November 21-25, 2011	
Test 3: Evening of Thursday November 24th	
Lecture 31	11.10 Taylor and Maclaurin Series (continued)
Lecture 32	11.11 Applications of Taylor Polynomials (omit applications to physics)
Lecture 33	12.1 Three-Dimensional Coordinate Systems 12.2 Vectors
Tutorial	*Problem Session/Review*
Week 13: November 28 - December 2, 2011	
MAPLE LAB #5 Due Date: 11:59pm on Friday December 2nd	
Lecture 34	12.3 The Dot Product 12.4 The Cross Product
Lecture 35	12.4 The Cross Product (continued) 12.5 Equations of Lines and Planes
Lecture 36	12.5 Equations of Lines and Planes (continued)
Tutorial	*Problem Session/Review*
Week 14: December 5-9, 2011 (Classes end on Dec. 5)	
Lecture 37	Review