

Math 1Z04 Course Calendar

Week 1: September 10-11, 2009

Lecture 1	Introduction 1.3 New Functions from Old Functions
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Week 2: September 14-18, 2009

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
Lecture 5	<i>Review of Trigonometry (Appendix D)</i>

Week 3: September 21-25, 2009

MAPLE LAB #0: Do the introductory Maple Lab. (Not to be handed in, but should be completed no later than Tuesday Sept. 22nd)

Lecture 6	2.2 The Limit of a Function (Continued) 2.3 Calculating Limits Using Limit Laws (omit the Squeeze Theorem)
Lecture 7	2.5 Continuity (omit the Intermediate Value Theorem) 2.6 Limits at Infinty; Horizontal Asymptotes (omit precise definitions)
Lecture 8	2.7 Derivatives and Rates of Change 2.8 The Derivative as a Function
Lecture 9	<i>Problem Session/Review</i>

Week 4: September 28 – October 2, 2009

MAPLE LAB #1 Due Date: 11:59pm on Tuesday Sept. 29th

Lecture 10	3.1 Derivatives of Polynomials and Exponential Functions 3.2 The Product and Quotient Rule 3.3 Derivatives of Trigonometric Functions
Lecture 11	3.4 The Chain Rule
Lecture 12	3.5 Implicit Differentiation (Note: Do Exercise 67(a) in 3.5, or state the result in class) 3.6 Derivatives of Logarithmic Functions
Lecture 13	<i>Problem Session/Review</i>

Week 5: October 5-9, 2009

TEST 1: Evening of Friday October 9

Lecture 14	3.6 Derivatives of Logarithmic Functions (Continued) 3.11 Hyperbolic Functions
Lecture 15	4.1 Maximum and Minimum Values
Lecture 16	4.3 How Derivatives Affect the Shape of a Graph
Lecture 17	<i>Problem Session/Review</i>

Week 6: October 13-16, 2009**THANKSGIVING WEEK (Holiday Monday, October 12th)****MAPLE LAB #2 Due Date:** 11:59pm on **Wednesday Oct. 14th**

Lecture 18 4.4 Indeterminate Forms and L'Hospital's Rule

Lecture 19 4.5 Summary of Curve Sketching

Lecture 20 *Problem Session/Review***Week 7: October 19-23, 2009**

Lecture 21 4.7 Optimization Problems

Lecture 22 4.8 Newton's Method

Lecture 23 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

Lecture 24 *Problem Session/Review***Week 8: October 26-30, 2009****Test 2 (Midterm Exam):** Evening of Wednesday October 28Lecture 25 9.1 Modeling With Differential Equations
3.8 Exponential Growth and Decay (omit continuously compounded interest)Lecture 26 3.8 Exponential Growth and Decay (continued)
Appendix E (Including Mathematical Induction)

Lecture 27 Appendix E (continued)

Lecture 28 *Problem Session/Review***Week 9: November 2-6, 2009****MAPLE LAB #3 Due Date:** 11:59pm on Tuesday Nov. 3rd

Lecture 29 11.1 Sequences (omit Definition 2)

Lecture 30 11.1 Sequences (continued)
11.2 SeriesLecture 31 11.2 Series (continued)
11.3 (Only the p-series result given in box 1)Lecture 32 *Problem Session/Review***Week 10: November 9-13, 2009**

Lecture 33 11.4 The Comparison Tests (omit estimating sums)

Lecture 34 11.5 Alternating Series

Lecture 35 11.6 Absolute Convergence and the Ratio and Root Tests

Lecture 36 *Problem Session/Review***Week 11: November 16-20, 2009****Test 3:** Evening of Friday November 20

Lecture 37 11.8 Power Series

Lecture 38 11.9 Representations of Functions as Power Series (omit Example 8(b))

Lecture 39 11.10 Taylor and Maclaurin Series (omit multiplication and division of power series)

Lecture 40 *Problem Session/Review*

Week 12: November 23-27, 2009

MAPLE LAB #4 Due Date: 11:59pm on Tuesday November 24th

Lecture 41	11.10 Taylor and Maclaurin Series (continued)
Lecture 42	11.11 Applications of Taylor Polynomials (omit applications to physics)
Lecture 43	12.1 Three-Dimensional Coordinate Systems 12.2 Vectors
<i>Lecture 44</i>	<i>Problem Session/Review</i>

Week 13: November 30- December 4, 2009

Lecture 45	12.3 The Dot Product 12.4 The Cross Product
Lecture 46	12.4 The Cross Product (continued) 12.5 Equations of Lines and Planes
Lecture 47	12.5 Equations of Lines and Planes (continued)
<i>Lecture 48</i>	<i>Problem Session/Review</i>

Week 14: December 7-11, 2009

MAPLE LAB #5 Due Date: 11:59pm on Tuesday December 8th