## MATH 2554 COURSE OUTLINE AND SUGGESTED SCHEDULE:

This schedule is an approximation and subject to change.

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18 January MLK Holiday

2.1 The Idea of Limits2.2 Definitions of Limits

25 January 2.3 Techniques for Computing Limits

2.4 Infinite Limits2.5 Limits at Infinity

1 February 2.5 Limits at Infinity

2.6 Continuity

2.7 Precise Definitions of Limits

8 February 2.7 Precise Definitions of Limits

3.1 Introducing the Derivative

Review Exam 1

15 February 3.2 Working with Derivatives

3.3 Rules of Differentiation

3.4 The Product and Quotient Rule

3.5 Derivatives of Trigonometric Functions

22 February 3.5 Derivatives of Trigonometric Functions

3.6 Derivatives as Rates of Change

3.7 The Chain Rule

29 February 3.8 Implicit Differentiation

Review Exam 2

3.9 Derivatives of Logarithmic and Exponential Functions

7 March Review

MIDTERM EXAM – TUESDAY, 6:00 – 7:30 PM 3.10 Derivatives of Inverse Trigonometric Functions

3.11 Related Rates

14 March 3.11 Related Rates

4.1 Maxima and Minima4.2 What Derivatives Tell Us

21 March NO CLASS—SPRING BREAK

28 March 4.3 Graphing Functions **4.4 Optimization Problems** 4.5 Linear Approximation and Differentials 4 April 4.6 Mean Value Theorem **Review** Exam 3 11 April 4.7 L'Hopital's Rule 4.9 Antiderivatives **5.1 Approximating Areas Under Curves** 18 April **5.2 Definite Integrals 5.3 Fundamental Theorem of Calculus 5.4 Working with Integrals 5.4 Working with Integrals** 25 April **5.5 Substitution Rule Review** Exam 4 2 May **5.5 Substitution Rule Review** 9 May FINAL EXAM – MONDAY, 6:00-8:00 PM