

# MATH 125 – Calculus I

## Spring 2017 Lab Schedule

### Week 1

1	W	1/18	Introduction and Precalculus Review
2	F	1/20	2.1: Limits, Rates of Change, and Tangent Lines

**Lab:** Introduction and Precalculus Review

### Week 2

3	M	1/23	2.2: Limits: A Numerical and Graphical Approach
4	W	1/25	2.3: Basic Limit Laws
5	F	1/27	2.4: Limits and Continuity

**Lab:** Cover sections 2.1, 2.2, and 2.3

Quiz 1:                      1<sup>st</sup> Meeting                      Precalculus

### Week 3

6	M	1/30	2.5: Evaluating Limits Algebraically
7	W	2/1	2.7: Limits at Infinity
8	F	2/3	2.8: Intermediate Value Theorem

**Lab:** Cover sections 2.4, 2.5, and 2.7

Homework 1:              Due 1<sup>st</sup> Meeting              Sections 2.2, 2.3, and 2.4

### Week 4

9	M	2/6	3.1: Definition of Derivative
10	W	2/8	3.2: The Derivative as a Function
11	F	2/10	3.3: Product and Quotient Rules

**Lab:** Cover sections 2.7, 2.8, 3.1, 3.2

Quiz 2:                      1<sup>st</sup> Meeting                      Sections 2.5 and 2.7

Homework 2:              Due 2<sup>nd</sup> Meeting              Sections 2.8, 3.1, and 3.2

### Week 5

12	M	2/13	3.7: The Chain Rule
13	W	2/15	3.7: The Chain Rule
14	F	2/17	3.8: Implicit Differentiation

**Lab:** Cover sections 3.3 and 3.7

Quiz 3:                      2<sup>nd</sup> Meeting                      Sections 3.3 and 3.7

Homework 3:              Due 2<sup>nd</sup> Meeting              Sections 3.3 and 3.7

### Week 6

15	M	2/20	3.8: Implicit Differentiation
16	W	2/22	3.4: Rates of Change
17	F	2/24	3.5: Higher Derivatives

**Lab:** Cover section 3.8 and review for Midterm Exam 1.

**Week 7**

18 M 2/27 Midterm Exam I Review

**Midterm Exam I - Tuesday 2/28**

19 W 3/1 2.6: Trigonometric Limits

20 F 3/3 3.6: Derivatives of Trigonometric Functions

**Lab:** Review Midterm Exam 1 and cover sections 2.6 and 3.6.Paper Gateway 2<sup>nd</sup> Meeting**Week 8**

21 M 3/6 3.9: Derivatives of Inverse Functions

22 W 3/8 3.10: Related Rates

23 F 3/10 3.10: Related Rates

**Lab:** Cover sections 3.9 and 3.10.Quiz 4: 2<sup>nd</sup> Meeting Sections 2.6, 3.6, and 3.9Homework 4: Due 1<sup>st</sup> Meeting Sections 2.6, 3.4, 3.5, and 3.6**Week 9**

24 M 3/13 4.1: Linear Approximations

25 W 3/15 4.2: Extreme Values

26 F 3/17 4.3: The Mean Value Theorem

**Lab:** Cover sections 3.10 and 4.1.Quiz 5: 2<sup>nd</sup> Meeting Section 3.10Homework 5: Due 2<sup>nd</sup> Meeting Sections 3.8, 3.9, and 3.10**Spring Break: 3/20 - 3/24****Week 10**

27 M 3/27 4.4: The Shape of a Graph

28 W 3/29 4.6: Graph Sketching

29 F 3/31 4.7: Applied Optimization

**Lab:** Cover sections 4.2, 4.3, 4.4, and 4.6.Quiz 6: 2<sup>nd</sup> Meeting Section 4.6Homework 6: Due 2<sup>nd</sup> Meeting Sections 4.1-4.4 and 4.6**Week 11**

30 M 4/3 4.7: Applied Optimization

31 W 4/5 4.5: L'Hospital's Rule

32 F 4/7 4.5: L'Hospital's Rule

**Lab:** Cover section 4.5 and 4.7 and review for Midterm Exam 2.

**Week 12**

33 M 4/10 Midterm Exam II Review

**Midterm Exam II - Tuesday 4/11**

34 W 4/12 4.8: Newton's Method

35 F 4/14 5.1: Area

**Lab:** Review Midterm Exam 2 and cover section 4.8.Homework 7: Due 2<sup>nd</sup> Meeting Sections 4.5 and 4.7**Week 13**

36 M 4/17 5.2: Definite Integrals (Last Day for Withdrawing)

37 W 4/19 5.3: Indefinite Integrals

38 F 4/21 5.3: Indefinite Integrals

**Lab:** Cover sections 5.1, 5.2, and 5.3.Quiz 7: 2<sup>nd</sup> Meeting Sections 4.8, 5.1, and 5.2**Week 14**

39 M 4/24 5.4: The Fundamental Theorem of Calculus Part I

40 W 4/26 5.5: The Fundamental Theorem of Calculus Part II

41 F 4/28 5.7: Substitution Method

**Lab:** Cover sections 5.3, 5.4, and 5.5.Quiz 8: 2<sup>nd</sup> Meeting Sections 5.3, 5.4, and 5.5Homework 8: Due 2<sup>nd</sup> Meeting Sections 5.1, 5.2, and 5.3**Week 15**

42 M 5/1 5.7: Substitution Method

43 W 5/3 Final Exam Review

F 5/5 **Stop Day - No Classes****Lab:** Cover section 5.7 and review for the Final Exam.

Quiz 9: Last Meeting Section 5.7

Homework 9: Due Last Meeting Sections 5.4, 5.5, and 5.7

**Final Exam - Tuesday 5/9 - 4:30-7:00pm**