

Engineering Calc I

Mike Pierce · Math135 · Fall2023 · Tended 13 July 2023 · Hosted at coloradomesa.edu/~mapierce2/135

Week One · August 21

Monday – Review of Algebra
Tuesday – Review of Analytic Geometry
Wednesday – Review of Trigonometry
Thursday – **Preliminary Assessment**

Week Two · August 28

Monday – Syllabus & Orientation
Tuesday – §1.4 The Tangent and Velocity Problems
Wednes/Thursday – Differential Calculus Crash Course
Add/drop deadline is September 5

Week Three · September 4

Monday – §1.5 The Limit of a Function
Tuesday – §1.6 Calculating Limits using Limit Laws
Wednesday – §1.8 Continuity
Thursday – Problem Solving Session

Week Four · September 11

Mon/Tuesday – §1.7 The Precise Definition of a Limit
Wednes/Thursday – **First Midterm Exam**

Week Five · September 18

Monday – §2.1 Derivatives and Rates of Change
Tuesday – §2.2 The Derivative as a Function
Wednesday – §2.3 Differentiation Formulas
Thursday – Problem Solving Session

Week Six · September 25

Monday – §2.4 Derivatives of Trigonometric Functions
Tues/Wednesday – §2.5 The Chain Rule
Thursday – Problem Solving Session

Week Seven · October 2

Monday – §2.6 Implicit Differentiation
Tuesday – §2.7 Rates of Change in the Natural and Social Sciences
Wednesday – §2.8 Related Rates
Thursday – Problem Solving Session

Week Eight · October 9

Monday – §3.1 Maximum and Minimum Values
Tuesday – §3.3 What Derivatives Tell Us about the Shape of a Graph
Wednesday – §3.4 Limits at Infinity; Horizontal Asymptotes
Thursday – Problem Solving Session

Week Nine · October 16

Monday – §3.2 The Mean Value Theorem
Tues/Wednesday – §3.7 Optimization Problems
Thursday – Problem Solving Session

Week Ten · October 23

Mon/Tuesday – §3.8 Newton's Method
Wednes/Thursday – **Second Midterm Exam**
Withdraw deadline is October 30

Week Eleven · October 30

Mon/Tuesday – Integral Calculus Crash Course
Wednesday – §3.9 Antiderivatives
Thursday – §4.1 The Area and Distance Problems

Week Twelve · November 6

Monday – §4.2 The Definite Integral
Tuesday – §4.3 The Fundamental Theorem of Calculus
Wednesday – §4.4 Indefinite Integrals and the Net Change Theorem
Thursday – Problem Solving Session

Week Thirteen · November 13

Mon/Tuesday – §4.5 The Substitution Rule
Wednesday – §5.1 Areas Between Curves
Thursday – Problem Solving Session

Week Fourteen · November 20

Thanksgiving Break, No Class

Week Fifteen · November 27

Monday – §5.2 Volumes
Tuesday – §5.3 Volumes by Cylindrical Shells
Wednesday – §5.4 Work
Thursday – Problem Solving Session

Week Sixteen · December 4

Mon/Tuesday – §5.5 Average Value of a Function
Wednes/Thursday – **Third Midterm Exam**

Final Exam

Section 1 (9am Class) – Wednesday Dec 13 @ 8am