Engineering Calc II

Mike Pierce · Math136 · Spring 2023 · Last tended 5 May 2023 · Hosted at coloradomesa.edu/~mapierce2/136

Week One · January 23

Monday – Orientation & Recapitulation of Calculus
Tuesday – §6.1 Inverse Function and Their Derivatives
Wednes/Thursday – §6.2* The Natural Logarithmic Function

Week Two · January 30

Mon/Tuesday – §6.3* The Natural Exponential Function
Wednes/Thursday – §6.4* General Logarithmic and Exponential Functions
Add/drop deadline is February 7

Week Three · February 6

Mon/Tuesday – §6.6 Inverse Trigonometric Functions
Wednes/Thursday – §6.8 Intermediate Forms and l'Hospital's Rule

Week Four · February 13

Mon/Tuesday – §6.7 Hyperbolic Functions
Wednes/Thursday – **Midterm Exam One**

Week Five · February 20

Mon/Tuesday – §7.1 Integration by Parts
Wednesday – §7.2 Trigonometric Integrals
Thursday – §7.3 Trigonometric Substitution

Week Six · February 27

Mon/Tuesday – §7.4 Integration of Rational Functions by Partial Fractions
Wednesday – §7.5 Strategy for Integration
Thursday – §7.6 Integration Using Tables and Technology

Week Seven · March 6

Monday – §7.8 Improper Integrals
Tuesday – §8.1 Arc Length, and §8.2 Area of a Surface of Revolution
Wednes/Thursday – §8.3 Applications to Physics and Engineering

Week Eight · March 13

Monday – §7.7 Approximate Integration
Tuesday – §8.3 Applications to Physics and Engineering, and §8.5 Probability
Wednes/Thursday – **Midterm Exam Two**

Week Nine · March 20

Spring Break, No Class

Week Ten · March 27

Monday – §6.5 Exponential Growth and Decay, and §9.1 Modelling with Differential Equations
Tuesday – §9.2 Direction Fields and Euler's Method
Wednes/Thursday – §9.3 Separable Equations
Withdraw deadline is April 10

Week Eleven · April 3

Monday – §10.1 Curves Defined by Parametric Equations
Tuesday – §10.2 Calculus with Parametric Curves
Wednesday – §10.3 Polar Coordinates
Thursday – §10.4 Calculus in Polar Coordinates

Week Twelve · April 10

Mon/Tuesday – §10.5 Conic Sections, §10.6 Conic Sections in Polar Coordinates
Wednes/Thursday – **Midterm Exam Three**

Week Thirteen · April 17

Monday – §11.1 Sequences
Tuesday – §11.2 Series
Wednes/Thursday – §11.3 The Integral Test and Estimates of Sums

Week Fourteen · April 24

Monday – §11.4 The Comparison Tests
Tuesday – §11.5 Alternating Series and Absolute Convergence
Wednesday – §11.6 The Ratio and Root Tests
Thursday – §11.7 Strategy for Testing Series

Week Fifteen · May 1

Monday – §11.8 Power Series
Tuesday – §11.9 Representation of Functions as Power Series
Wednes/Thursday – §11.10 Taylor and Maclaurin Series

Week Sixteen · May 8

Mon/Tuesday – §11.11 Applications of Taylor Polynomials
Wednes/Thursday – **Midterm Exam Four**

Final Exam

Section 001 (1pm Class) – Wednesday May 17 @ 1pm
Display During Exam: Formula Sheet