

Calculus

2008-2009

1st 6 Weeks

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|-----------|---------|
| Review | 2 Days |
| Chapter 1 | 10 Days |
| Chapter 2 | 3 Days |

Days on Calendar 14 Days

2nd 6 Weeks

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|-----------|---------|
| Chapter 2 | 14 Days |
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Days on Calendar 14 Days

3rd 6 Weeks

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|-----------|---------|
| Chapter 2 | 2 Days |
| Chapter 3 | 12 Days |

Days on Calendar 14 Days

4th 6 Weeks

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| Chapter 3 | 10 Days |
| Chapter 4 | 4 Days |

Days on Calendar 14 Days

5th 6 Weeks

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| Chapter 4 | 11 Days |
| Chapter 5 | 3 Days |

Days on Calendar 14 Days

6th 6 Weeks

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| Chapter 5 | 13 Days |
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Days on Calendar 14 Days

FIRST SIX WEEKS

Chapter P: Preparation for Calculus

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|-------|--|
| Day 1 | P.1 Graphs and Models P.2 Linear Models and Rates of Change P.3 Functions and their graphs |
| Day 2 | Trig Review—Unit Circle/Trigonometric Functions and Identities |

TOTAL DAYS 2

Chapter 1: Limits and Their Properties

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|--------|--|
| Day 1 | 1.1 A Preview of Calculus |
| Day 2 | 1.2 Finding Limits Graphically and Numerically |
| Day 3 | 1.3 Evaluating Limits Analytically |
| Day 4 | Test Review |
| Day 5 | Test on Sections P.1-P.3, trig, 1.1-1.2 |
| Day 6 | 1.4 Continuity & One-Sided Limits |
| Day 7 | 1.5 Infinite Limits |
| Day 8 | 1.5 Infinite Limits |
| Day 9 | Review |
| Day 10 | Ch. 1 Test |

TOTAL DAYS 10

Chapter 2: Differentiation

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|-------|---|
| Day 1 | 2.1 The Derivative and the Tangent Line Problem |
| Day 2 | 2.1 The Derivative and the Tangent Line Problem |
| Day 3 | 2.2 Basic Differentiation Rules and Rates of Change |

TOTAL DAYS 3

SECOND SIX WEEKS

Chapter 2: Differentiation (continued)

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|--------|---|
| Day 1 | 2.2 Basic Differentiation Rules and Rates of Change |
| Day 2 | 2.3 Product and Quotient Rules and Higher Order Derivatives |
| Day 3 | 2.3 Product and Quotient Rules and Higher Order Derivatives |
| Day 4 | Review/Quiz |
| Day 5 | Review/Test |
| Day 6 | 2.4 The Chain Rule |
| Day 7 | 2.4 The Chain Rule |
| Day 8 | 2.5 Implicit Differentiation |
| Day 9 | 2.5 Implicit Differentiation |
| Day 10 | Review 2.4-2.5 |
| Day 11 | Test 2.4-2.5 |
| Day 12 | 2.6 Related Rates |
| Day 13 | 2.6 Related Rates |
| Day 14 | 2.6 Related Rates with extensions |

TOTAL DAYS 14

THIRD SIX WEEKS

Chapter 2: Differentiation (continued)

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| Day 1 | Review |
| Day 2 | Ch. 2 Test |

TOTAL DAYS 2

Chapter 3: Applications of Differentiation

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|--------|---|
| Day 1 | 3.1 Extrema on an Interval |
| Day 2 | 3.2 Rolle's Theorem and the Mean Value Theorem |
| Day 3 | 3.2 Rolle's Theorem and the Mean Value Theorem |
| Day 4 | 3.3 Increasing & Decreasing Functions & the First Derivative Test |
| Day 5 | 3.3 Increasing & Decreasing Functions & the First Derivative Test |
| Day 6 | Review/Quiz |
| Day 7 | Review |
| Day 8 | Test 3.1-3.3 |
| Day 9 | 3.4 Concavity and the Second Derivative Test |
| Day 10 | 3.4 Concavity and the Second Derivative Test |
| Day 11 | 3.5 Limits at Infinity |
| Day 12 | 3.5 Limits at Infinity |

TOTAL DAYS 12

FOURTH SIX WEEKS

Chapter 3: Applications of Differentiation (continued)

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| Day 1 | 3.6 A Summary of Curve Sketching |
| Day 2 | 3.6 A Summary of Curve Sketching |
| Day 3 | Review |
| Day 4 | Test 3.4-3.6 |
| Day 5 | 3.7 Optimization Problems |
| Day 6 | 3.7 Optimization Problems |
| Day 7 | 3.8 Newton's Method |
| Day 8 | 3.9 Differentials |
| Day 9 | Review |
| Day 10 | Ch. 3 Test |

TOTAL DAYS 10

Chapter 4: Integration

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|-------|--|
| Day 1 | 4.1 Antiderivatives and Indefinite Integration |
| Day 2 | 4.1 Antiderivatives and Indefinite Integration |
| Day 3 | 4.2 Area (Sigma Notation and Sigma Sums only) |
| Day 4 | 4.2 Area |

TOTAL DAYS 4

FIFTH SIX WEEKS

Chapter 4: Integration (continued)

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| Day 1 | 4.3 Riemann Sums and Area of Known Geometric Shapes |
| Day 2 | 4.3 Riemann Sums and Area of Known Geometric Shapes |
| Day 3 | Review |
| Day 4 | Test 4.1-4.3 |
| Day 5 | 4.4 The Fundamental Theorem of Calculus |
| Day 6 | 4.4 The Fundamental Theorem of Calculus |
| Day 7 | 4.5 Integration by Substitution |
| Day 8 | 4.5 Integration by Substitution |
| Day 9 | 4.6 Numerical Integration (Omit Simpson's Rule) |
| Day 10 | Review |
| Day 11 | Ch. 4 Test |

TOTAL DAYS 11

Chapter 5: Logarithmic, Exponential, & Other Transcendental Functions

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|-------|---|
| Day 1 | 5.1 The Natural Logarithmic Function: Differentiation |
| Day 2 | 5.1 The Natural Logarithmic Function: Differentiation |
| Day 3 | 5.2 The Natural Logarithmic Function: Integration |

TOTAL DAYS 3

SIXTH SIX WEEKS

Chapter 5: Logarithmic, Exponential, & Other Transcendental Functions (continued)

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|--------|--|
| Day 1 | 5.2 The Natural Logarithmic Function: Integration |
| Day 2 | 5.3 Inverse Functions |
| Day 3 | 5.3 Inverse Functions |
| Day 4 | Review/Quiz 5.1-5.3 |
| Day 5 | Test 5.1-5.3 |
| Day 6 | 5.4 Exponential Functions: Differentiation and Integration |
| Day 7 | 5.4 Exponential Functions: Differentiation and Integration |
| Day 8 | 5.5 Bases other than e and Applications |
| Day 9 | 5.5 Bases other than e and Applications |
| Day 10 | 5.6 Inverse Trigonometric Functions: Differentiation |
| Day 11 | 5.6 Inverse Trigonometric Functions: Differentiation |
| Day 12 | Review |
| Day 13 | Ch. 5 Test |

TOTAL DAYS 13