Detailed Calculus 2 Daily Study Plan

Complete Daily Breakdown with Content, Quizzes, and Tests

Generated on June 24, 2025

Study Plan Overview

- Total Calculus 2 Study Time: 83.1 hours
- Daily Calculus Study: 3 hours/day (1h morning + 2h afternoon)
- Daily Video Editing: 2 hours/day
- Available Study Days: 68 days
- Study Period: Jun 21, 2025 to Sep 12, 2025
- Total Content: 243 videos, 105 exercises, 18 quizzes, 6 tests

Content Breakdown by Unit

1. Integrals review

- Time: 8h | Topics: 18 | Videos: 55 | Exercises: 26
- Assessments: 4 quizzes, 1 tests

2. Integration techniques

- Time: 11.4h | Topics: 10 | Videos: 34 | Exercises: 11
- Assessments: 2 quizzes, 1 tests

3. Differential equations

- Time: 11.1h | Topics: 11 | Videos: 28 | Exercises: 13
- Assessments: 1 quizzes, 1 tests

4. Applications of integrals

- Time: 18h | Topics: 19 | Videos: 40 | Exercises: 20
- Assessments: 4 quizzes, 1 tests

5. Parametric equations, polar coordinates, and vector-valued functions

- Time: 12.8h | Topics: 15 | Videos: 20 | Exercises: 15
- Assessments: 4 quizzes, 1 tests

6. Series

- Time: 21.8h | Topics: 22 | Videos: 66 | Exercises: 20
- Assessments: 3 quizzes, 1 tests

Daily Schedule Template

10:00 - 11:00 AM: Calculus 2 Study - Focus on current unit topics with Khan Academy videos and practice
11:00 - 11:30 AM: Light Workout/Break - Physical activity to refresh mind and body
11:30 AM - 12:30 PM: Video Editing Work - Part-time job responsibilities
12:30 - 2:00 PM: Lunch & Break - Meal time and personal break
2:00 - 4:00 PM: Deep Calculus 2 Study - Problem solving, practice exercises, and concept reinforcement
4:00 - 5:00 PM: Video Editing Work - Continue part-time job work
Evening: Free Time/Review - Optional review or personal time

Comprehensive Topic Breakdown

Complete listing of all topics and content items with time estimates.

Unit 1: Integrals review

8 hours | 18 topics | 98 content items

1. Accumulations of change introduction

0.3h | 5 items | 3 videos

- Video: Introduction to integral calculus (7min)
- Video: Definite integrals intro (12min)
- Article: Exploring accumulation of change (10min)

... and 2 more content items

2. Approximation with Riemann sums

0.8h | 13 items | 7 videos

- Video: Riemann approximation introduction (10min)
- Video: Over- and under-estimation of Riemann sums (6min)
- Article: Left & right Riemann sums (10min)

... and 10 more content items

3. Summation notation review

0.2h | 4 items | 2 videos

- Video: Summation notation (7min)
- Article: Summation notation (10min)
- Video: Worked examples: Summation notation (8min)

... and 1 more content items

4. Riemann sums in summation notation

0.5h | 6 items | 4 videos

- Video: Riemann sums in summation notation (13min)
- Article: Riemann sums in summation notation (10min)
- Video: Worked example: Riemann sums in summation notation (11min)

... and 3 more content items

5. Defining integrals with Riemann sums

0.3h | 5 items | 3 videos

- Video: Definite integral as the limit of a Riemann sum (7min)
- Article: Definite integral as the limit of a Riemann sum (10min)
- Video: Worked example: Rewriting definite integral as limit of Riemann sum (8min)

... and 2 more content items

6. Integrals review: Quiz 1

0.4h | 1 items | 0 videos

- Topic quiz: Integrals review: Quiz 1 (25min)

7. Fundamental theorem of calculus and accumulation functions

0.3h | 7 items | 4 videos

- Video: The fundamental theorem of calculus and accumulation functions (12min)
- Video: Functions defined by definite integrals (accumulation functions) (6min)
- Exercise: Functions defined by definite integrals (accumulation functions) (18min)

... and 4 more content items

8. Interpreting the behavior of accumulation functions

0.1h | 3 items | 1 videos

- Video: Interpreting the behavior of accumulation functions (13min)
- Article: Interpreting the behavior of accumulation functions (10min)
- Exercise: Interpreting the behavior of accumulation functions (18min)

9. Properties of definite integrals

1.1h | 18 items | 14 videos

- Video: Negative definite integrals (8min)
- Video: Finding definite integrals using area formulas (6min)
- Exercise: Finding definite integrals using area formulas (18min)

... and 15 more content items

10. Integrals review: Quiz 2

0.4h | 1 items | 0 videos

- Topic quiz: Integrals review: Quiz 2 (25min)

11. Fundamental theorem of calculus and definite integrals

0.1h | 5 items | 2 videos

- Video: The fundamental theorem of calculus and definite integrals (7min)
- Exercise: The fundamental theorem of calculus and definite integrals (18min)
- Video: Antiderivatives and indefinite integrals (6min)

... and 2 more content items

12. Reverse power rule

0.4h | 9 items | 4 videos

- Video: Reverse power rule (9min)
- Exercise: Reverse power rule (18min)
- Exercise: Reverse power rule: negative and fractional powers (18min)

... and 6 more content items

13. Integrals review: Quiz 3

0.4h | 1 items | 0 videos

- Topic quiz: Integrals review: Quiz 3 (25min)

14. Indefinite integrals of common functions

0.2h | 6 items | 2 videos

- Video: Indefinite integral of 1/x (11min)
- Video: Indefinite integrals of sin(x), cos(x), and e.2 ƒfÖ–â•
- Exercise: Indefinite integrals: e.2 b ÷, ƒ †Ö–â•

... and 3 more content items

15. Definite integrals of common functions

0.3h | 10 items | 7 videos

- Video: Definite integrals: reverse power rule (6min)
- Exercise: Definite integrals: reverse power rule (18min)
- Video: Definite integral of rational function (8min)

... and 7 more content items

16. Integrals review: Quiz 4

0.4h | 1 items | 0 videos

- Topic quiz: Integrals review: Quiz 4 (25min)

17. Proof videos

1h | 2 items | 2 videos

- Video: Proof of fundamental theorem of calculus (8min)
- Video: Intuition for second part of fundamental theorem of calculus (8min)

18. Integrals review: Unit test

0.8h | 1 items | 0 videos

- Topic unit test: Integrals review: Unit test (45min)

Unit 2: Integration techniques

11.4 hours | 10 topics | 54 content items

1. Integrating with u-substitution

2.8h | 17 items | 11 videos

- Video: Ø5Þ6-substitution intro (8min)
- Video: Ø5Þ6-substitution: multiplying by a constant (8min)
- Video: Ø5Þ6-substitution: defining Ø5Þ6 (8min)

... and 14 more content items

2. Integrating using long division and completing the square

1h | 4 items | 2 videos

- Video: Integration using long division (8min)
- Exercise: Integration using long division (18min)
- Video: Integration using completing the square and the derivative of arctan(x) (8min)

... and 1 more content items

3. Integrating using trigonometric identities

1h | 4 items | 3 videos

- Video: Integral of cos^3(x) (8min)
- Video: Integral of sin^2(x) cos^3(x) (8min)
- Video: Integral of sin^4(x) (8min)

... and 1 more content items

4. Integration techniques: Quiz 1

0.4h | 1 items | 0 videos

- Topic quiz: Integration techniques: Quiz 1 (25min)

5. Trigonometric substitution

1.3h | 9 items | 8 videos

- Video: Introduction to trigonometric substitution (8min)
- Video: Substitution with x=sin(theta) (8min)
- Video: More trig sub practice (8min)

... and 6 more content items

6. Integration by parts

1.7h | 10 items | 6 videos

- Video: Integration by parts intro (8min)
- Video: Integration by parts: "+x"Åcos(x)dx (8min)
- Video: Integration by parts: "+ln(x)dx (8min)

... and 7 more content items

7. Integrating using linear partial fractions

1h | 2 items | 1 videos

- Video: Integration with partial fractions (8min)
- Exercise: Integration with partial fractions (18min)

8. Improper integrals

1h | 5 items | 3 videos

- Video: Introduction to improper integrals (8min)
- Video: Divergent improper integral (8min)
- Exercise: Improper integrals (18min)

... and 2 more content items

9. Integration techniques: Quiz 2

0.4h | 1 items | 0 videos

- Topic quiz: Integration techniques: Quiz 2 (25min)

10. Integration techniques: Unit test

0.8h | 1 items | 0 videos

- Topic unit test: Integration techniques: Unit test (45min)

Unit 3: Differential equations

11.1 hours | 11 topics | 45 content items

1. Differential equations introduction

1h | 3 items | 2 videos

- Video: Differential equations introduction (8min)
- Video: Writing a differential equation (8min)
- Exercise: Write differential equations (18min)

2. Verifying solutions for differential equations

1h | 2 items | 1 videos

- Video: Verifying solutions to differential equations (8min)
- Exercise: Verify solutions to differential equations (18min)

3. Sketching slope fields

1h | 5 items | 4 videos

- Video: Slope fields introduction (8min)
- Video: Worked example: equation from slope field (8min)
- Video: Worked example: slope field from equation (8min)

... and 2 more content items

4. Reasoning using slope fields

1h | 3 items | 2 videos

- Video: Approximating solution curves in slope fields (8min)
- Video: Worked example: range of solution curve from slope field (8min)
- Exercise: Reasoning using slope fields (18min)

5. Approximation with Euler’s method

1h | 3 items | 2 videos

- Video: Euler's method (8min)
- Video: Worked example: Euler's method (8min)
- Exercise: Euler's method (18min)

6. Differential equations: Quiz 1

0.4h | 1 items | 0 videos

- Topic quiz: Differential equations: Quiz 1 (25min)

7. Separation of variables

1.7h | 9 items | 4 videos

- Video: Separable equations introduction (8min)
- Video: Addressing treating differentials algebraically (8min)
- Article: Separable differential equations (10min)

... and 6 more content items

8. Particular solutions to differential equations

1.1h | 6 items | 4 videos

- Video: Particular solutions to differential equations: rational function (8min)
- Video: Particular solutions to differential equations: exponential function (8min)
- Exercise: Particular solutions to differential equations (18min)

... and 3 more content items

9. Exponential models

1h | 5 items | 3 videos

- Video: Exponential models & differential equations (Part 1) (8min)
- Video: Exponential models & differential equations (Part 2) (8min)
- Video: Worked example: exponential solution to differential equation (8min)

... and 2 more content items

10. Logistic models

1.1h | 7 items | 6 videos

- Video: Growth models: introduction (8min)
- Video: The logistic growth model (8min)
- Video: Worked example: Logistic model word problem (8min)

... and 4 more content items

11. Differential equations: Unit test

0.8h | 1 items | 0 videos

- Topic unit test: Differential equations: Unit test (45min)

Unit 4: Applications of integrals

18 hours | 19 topics | 67 content items

1. Average value of a function

1h | 4 items | 3 videos

- Video: Average value over a closed interval (8min)
- Video: Calculating average value of function over interval (8min)
- Exercise: Average value of a function (18min)

... and 1 more content items

2. Straight-line motion

1.4h | 8 items | 5 videos

- Video: Motion problems with integrals: displacement vs. distance (8min)
- Video: Analyzing motion problems: position (8min)
- Video: Analyzing motion problems: total distance traveled (8min)

... and 5 more content items

3. Non-motion applications of integrals

1.7h | 9 items | 5 videos

- Video: Area under rate function gives the net change (8min)
- Video: Interpreting definite integral as net change (8min)
- Video: Worked examples: interpreting definite integrals in context (8min)

... and 6 more content items

4. Applications of integrals: Quiz 1

0.4h | 1 items | 0 videos

- Topic quiz: Applications of integrals: Quiz 1 (25min)

5. Area: vertical area between curves

1.5h | 8 items | 5 videos

- Video: Area between a curve and the x-axis (8min)
- Video: Area between a curve and the x-axis: negative area (8min)
- Exercise: Area between a curve and the x-axis (18min)

... and 5 more content items

6. Area: horizontal area between curves

1h | 3 items | 2 videos

- Video: Area between a curve and the Ø5Þ:-axis (8min)
- Video: Horizontal area between curves (8min)
- Exercise: Horizontal areas between curves (18min)

7. Area: curves that intersect at more than two points

1h | 1 items | 0 videos

- Exercise: Area between curves that intersect at more than two points (calculator-active) (18min)

8. Applications of integrals: Quiz 2

0.4h | 1 items | 0 videos

- Topic quiz: Applications of integrals: Quiz 2 (25min)

9. Volume: squares and rectangles cross sections

1h | 5 items | 3 videos

- Video: Volume with cross sections: intro (8min)
- Exercise: Volumes with cross sections: squares and rectangles (intro) (18min)
- Video: Volume with cross sections: squares and rectangles (no graph) (8min)

... and 2 more content items

10. Volume: triangles and semicircles cross sections

1h | 3 items | 2 videos

- Video: Volume with cross sections: semicircle (8min)
- Video: Volume with cross sections: triangle (8min)
- Exercise: Volumes with cross sections: triangles and semicircles (18min)

11. Volume: disc method (revolving around x- and y-axes)

1h | 4 items | 3 videos

- Video: Disc method around x-axis (8min)
- Video: Generalizing disc method around x-axis (8min)
- Video: Disc method around y-axis (8min)

... and 1 more content items

12. Volume: disc method (revolving around other axes)

1h | 4 items | 3 videos

- Video: Disc method rotation around horizontal line (8min)
- Video: Disc method rotating around vertical line (8min)
- Video: Calculating integral disc around vertical line (8min)

... and 1 more content items

13. Volume: washer method (revolving around x- and y-axes)

1h | 3 items | 2 videos

- Video: Solid of revolution between two functions (leading up to the washer method) (8min)
- Video: Generalizing the washer method (8min)
- Exercise: Washer method: revolving around x- or y-axis (18min)

14. Volume: washer method (revolving around other axes)

1h | 5 items | 4 videos

- Video: Washer method rotating around horizontal line (not x-axis), part 1 (8min)
- Video: Washer method rotating around horizontal line (not x-axis), part 2 (8min)
- Video: Washer method rotating around vertical line (not y-axis), part 1 (8min)

... and 2 more content items

15. Applications of integrals: Quiz 3

0.4h | 1 items | 0 videos

- Topic quiz: Applications of integrals: Quiz 3 (25min)

16. Arc length

1h | 4 items | 3 videos

- Video: Arc length intro (8min)
- Video: Worked example: arc length (8min)
- Exercise: Arc length (18min)

... and 1 more content items

17. Calculator-active practice

1h | 1 items | 0 videos

- Exercise: Contextual and analytical applications of integration (calculator-active) (18min)

18. Applications of integrals: Quiz 4

0.4h | 1 items | 0 videos

- Topic quiz: Applications of integrals: Quiz 4 (25min)

19. Applications of integrals: Unit test

0.8h | 1 items | 0 videos

- Topic unit test: Applications of integrals: Unit test (45min)

Unit 5: Parametric equations, polar coordinates, and vector-valued functions

12.8 hours | 15 topics | 40 content items

1. Parametric equations intro

1h | 3 items | 2 videos

- Video: Parametric equations intro (8min)
- Video: Parametric equations differentiation (8min)
- Exercise: Parametric equations differentiation (18min)

2. Second derivatives of parametric equations

1h | 2 items | 1 videos

- Video: Second derivatives (parametric functions) (8min)
- Exercise: Second derivatives (parametric functions) (18min)

3. Arc length: parametric curves

1h | 3 items | 2 videos

- Video: Parametric curve arc length (8min)
- Video: Worked example: Parametric arc length (8min)
- Exercise: Parametric curve arc length (18min)

4. Parametric equations, polar coordinates, and vector-valued functions: Quiz 1

0.4h | 1 items | 0 videos

- Topic quiz: Parametric equations, polar coordinates, and vector-valued functions: Quiz 1 (25min)

5. Vector-valued functions

1h | 5 items | 3 videos

- Video: Vector-valued functions intro (8min)
- Video: Vector-valued functions differentiation (8min)
- Exercise: Vector-valued functions differentiation (18min)

... and 2 more content items

6. Parametric equations, polar coordinates, and vector-valued functions: Quiz 2

0.4h | 1 items | 0 videos

- Topic quiz: Parametric equations, polar coordinates, and vector-valued functions: Quiz 2 (25min)

7. Planar motion

1.4h | 7 items | 4 videos

- Video: Planar motion example: acceleration vector (8min)
- Exercise: Planar motion (differential calc) (18min)
- Video: Motion along a curve: finding rate of change (8min)

... and 4 more content items

8. Parametric equations, polar coordinates, and vector-valued functions: Quiz 3

0.4h | 1 items | 0 videos

- Topic quiz: Parametric equations, polar coordinates, and vector-valued functions: Quiz 3 (25min)

9. Polar functions

1h | 4 items | 2 videos

- Video: Polar functions derivatives (8min)
- Video: Worked example: differentiating polar functions (8min)
- Exercise: Differentiate polar functions (18min)

... and 1 more content items

10. Area: polar regions (single curve)

1h | 4 items | 2 videos

- Video: Area bounded by polar curves (8min)
- Video: Worked example: Area enclosed by cardioid (8min)
- Exercise: Area bounded by polar curves intro (18min)

... and 1 more content items

11. Area: polar regions (two curves)

1h | 2 items | 1 videos

- Video: Worked example: Area between two polar graphs (8min)
- Exercise: Area between two polar curves (18min)

12. Arc length: polar curves

1h | 3 items | 2 videos

- Video: Arc length of polar curves (8min)
- Video: Worked example: Arc length of polar curves (8min)
- Exercise: Arc length of polar curves (18min)

13. Calculator-active practice

1h | 2 items | 1 videos

- Video: Evaluating definite integral with calculator (8min)
- Exercise: Area with polar functions (calculator-active) (18min)

14. Parametric equations, polar coordinates, and vector-valued functions: Quiz 4

0.4h | 1 items | 0 videos

- Topic quiz: Parametric equations, polar coordinates, and vector-valued functions: Quiz 4 (25min)

15. Parametric equations, polar coordinates, and vector-valued functions: Unit test

0.8h | 1 items | 0 videos

- Topic unit test: Parametric equations, polar coordinates, and vector-valued functions: Unit test (45min)

Unit 6: Series

21.8 hours | 22 topics | 92 content items

1. Convergent and divergent infinite series

1.7h | 9 items | 6 videos

- Video: Convergent and divergent sequences (8min)
- Video: Worked example: sequence convergence/divergence (8min)
- Exercise: Sequence convergence/divergence (18min)

... and 6 more content items

2. Infinite geometric series

1.1h | 7 items | 5 videos

- Video: Worked example: convergent geometric series (8min)
- Video: Worked example: divergent geometric series (8min)
- Exercise: Infinite geometric series (18min)

... and 4 more content items

3. Series: Quiz 1

0.4h | 1 items | 0 videos

- Topic quiz: Series: Quiz 1 (25min)

4. nth-term test

1h | 2 items | 1 videos

- Video: nth term divergence test (8min)
- Exercise: nth term test (18min)

5. Integral test

1h | 3 items | 2 videos

- Video: Integral test (8min)
- Video: Worked example: Integral test (8min)
- Exercise: Integral test (18min)

6. Harmonic series and p-series

1h | 4 items | 2 videos

- Video: Harmonic series and Ø5Ü]-series (8min)
- Video: Worked example: p-series (8min)
- Exercise: p-series (18min)

... and 1 more content items

7. Comparison tests

1.2h | 7 items | 5 videos

- Video: Direct comparison test (8min)
- Video: Worked example: direct comparison test (8min)
- Exercise: Direct comparison test (18min)

... and 4 more content items

8. Alternating series test

1h | 3 items | 2 videos

- Video: Alternating series test (8min)
- Video: Worked example: alternating series (8min)
- Exercise: Alternating series test (18min)

9. Ratio test

1h | 2 items | 1 videos

- Video: Ratio test (8min)
- Exercise: Ratio test (18min)

10. Absolute and conditional convergence

1h | 2 items | 1 videos

- Video: Conditional & absolute convergence (8min)
- Exercise: Determine absolute or conditional convergence (18min)

11. Series: Quiz 2

0.4h | 1 items | 0 videos

- Topic quiz: Series: Quiz 2 (25min)

12. Alternating series error bound

1h | 3 items | 2 videos

- Video: Alternating series remainder (8min)
- Video: Worked example: alternating series remainder (8min)
- Exercise: Alternating series remainder (18min)

13. Taylor and Maclaurin polynomials intro

1.1h | 7 items | 6 videos

- Video: Taylor & Maclaurin polynomials intro (part 1) (8min)
- Video: Taylor & Maclaurin polynomials intro (part 2) (8min)
- Video: Worked example: Maclaurin polynomial (8min)

... and 4 more content items

14. Lagrange error bound

1h | 5 items | 4 videos

- Video: Taylor polynomial remainder (part 1) (8min)
- Video: Taylor polynomial remainder (part 2) (8min)
- Video: Worked example: estimating sin(0.4) using Lagrange error bound (8min)

... and 2 more content items

15. Power series intro

1h | 3 items | 2 videos

- Video: Power series intro (8min)
- Video: Worked example: interval of convergence (8min)
- Exercise: Interval of convergence (18min)

16. Function as a geometric series

1h | 6 items | 5 videos

- Video: Function as a geometric series (8min)
- Video: Geometric series as a function (8min)
- Video: Power series of arctan(2x) (8min)

... and 3 more content items

17. Maclaurin series of e.2À sin(x), and cos(x)

1.3h | 9 items | 8 videos

- Video: Maclaurin series of cos(x) (8min)
- Video: Maclaurin series of sin(x) (8min)
- Video: Maclaurin series of e.2 ƒ†Ö–â•

... and 6 more content items

18. Representing functions as power series

1.4h | 8 items | 6 videos

- Video: Integrating power series (8min)
- Video: Differentiating power series (8min)
- Exercise: Integrate & differentiate power series (18min)

... and 5 more content items

19. Series: Quiz 3

0.4h | 1 items | 0 videos

- Topic quiz: Series: Quiz 3 (25min)

20. Telescoping series

1h | 2 items | 2 videos

- Video: Telescoping series (8min)
- Video: Divergent telescoping series (8min)

21. Proof videos

1h | 6 items | 6 videos

- Video: Formal definition for limit of a sequence (8min)
- Video: Proving a sequence converges using the formal definition (8min)
- Video: Finite geometric series formula (8min)

... and 3 more content items

22. Series: Unit test

0.8h | 1 items | 0 videos

- Topic unit test: Series: Unit test (45min)

Weekly Goals Summary

Week 1: Complete 18 topics from Integrals review (21h)

Week 2: Complete 10 topics from Integration techniques (21h)

Week 3: Complete 11 topics from Differential equations (21h)

Week 4: Complete 19 topics from Applications of integrals (21h)

Week 5: Complete 10 topics from Parametric equations, polar coordinates, and vector-valued functions (9h)

Week 6: Complete 0 topics from Parametric equations, polar coordinates, and vector-valued functions (0h)

Week 7: Complete 7 topics from Parametric equations, polar coordinates, and vector-valued functions (6h)

Week 8: Complete 21 topics from Series (21h)

Detailed Daily Study Plan

Each day shows exactly which videos, exercises, quizzes, and tests to complete.

Week 1

Saturday, Jun 21, 2025

Topic: Accumulations of change introduction

Goal: Ø=Ý Work on: Accumulations of change introduction + Approximation with Riemann sums

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Introduction to integral calculus [7min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Jun 22, 2025

Topic: Approximation with Riemann sums

Goal: Ø=Ý Work on: Approximation with Riemann sums (6 items)

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Over- and under-estimation of Riemann sums [6min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Monday, Jun 23, 2025

Topic: Approximation with Riemann sums

Goal: Ø=Ý Work on: Approximation with Riemann sums (6 items)

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Midpoint sums [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Jun 24, 2025

Topic: Approximation with Riemann sums

Goal: Ø=Ý Work on: Approximation with Riemann sums + 2 more topics

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Motion problem with Riemann sum approximation [5min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Jun 25, 2025

Topic: Riemann sums in summation notation

Goal: Ø=Ý Work on: Riemann sums in summation notation + Defining integrals with Riemann sums

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Worked example: Riemann sums in summation notation [11min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Jun 26, 2025

Topic: Defining integrals with Riemann sums

Goal: Ø=Ý Work on: Defining integrals with Riemann sums + 2 more topics

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Worked example: Rewriting definite integral as limit of Riemann sum [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Jun 27, 2025

Topic: Fundamental theorem of calculus and accumulation functions

Goal: Ø=Ý Work on: Fundamental theorem of calculus and accumulation functions (7 items)

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: The fundamental theorem of calculus and accumulation functions [4min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 2

Saturday, Jun 28, 2025

Topic: Fundamental theorem of calculus and accumulation functions

Goal: Ø=Ý Work on: Fundamental theorem of calculus and accumulation functions + 2 more topics

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÝ Exercise: Finding derivative with fundamental theorem of calculus: chain rule [6min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Jun 29, 2025

Topic: Properties of definite integrals

Goal: Ø=Ý Work on: Properties of definite integrals (8 items)

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÝ Exercise: Finding definite integrals using area formulas [10min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Monday, Jun 30, 2025

Topic: Properties of definite integrals

Goal: Ø=Ý Work on: Properties of definite integrals (7 items)

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Worked example: Breaking up the integral's interval [11min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Jul 1, 2025

Topic: Properties of definite integrals

Goal: Ø=Ý Work on: Properties of definite integrals + 2 more topics

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÖ Article: Definite integrals properties review [10min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Jul 2, 2025

Topic: Fundamental theorem of calculus and definite integrals

Goal: Ø=Ý Work on: Fundamental theorem of calculus and definite integrals + Reverse power rule

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÝ Exercise: Antiderivatives and indefinite integrals [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Jul 3, 2025

Topic: Reverse power rule

Goal: Ø=Ý Work on: Reverse power rule (7 items)

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÝ Exercise: Reverse power rule: negative and fractional powers [3min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Jul 4, 2025

Topic: Reverse power rule

Goal: Ø=Ý Work on: Reverse power rule + 2 more topics

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÖ Article: Reverse power rule review [4min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 3

Saturday, Jul 5, 2025

Topic: Indefinite integrals of common functions

Goal: Ø=Ý Work on: Indefinite integrals of common functions + Definite integrals of common functions

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÝ Exercise: Indefinite integrals: sin & cos [13min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Jul 6, 2025

Topic: Definite integrals of common functions

Goal: Ø=Ý Work on: Definite integrals of common functions (8 items)

Unit: Integrals review

Today's Specific Content:

- Ø<ß¥ Video: Definite integral of rational function [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Monday, Jul 7, 2025

Topic: Definite integrals of common functions

Goal: Ø=Ý Work on: Definite integrals of common functions + 3 more topics

Unit: Integrals review

Today's Specific Content:

- Ø=ÜÝ Exercise: Definite integrals of piecewise functions [10min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Jul 8, 2025

Topic: Integrals review: Unit test

Goal: Ø=Ý Work on: Integrals review: Unit test + Integrating with u-substitution

Unit: Integrals review

Today's Specific Content:

- Topic unit test: Integrals review: Unit test [25min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Jul 9, 2025

Topic: Integrating with u-substitution

Goal: Ø=Ý Work on: Integrating with u-substitution (6 items)

Unit: Integration techniques

Today's Specific Content:

- Ø=ÜÝ Exercise: Ø5Þ6-substitution: defining Ø5Þ6 [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Jul 10, 2025

Topic: Integrating with u-substitution

Goal: Ø=Ý Work on: Integrating with u-substitution + Integrating using long division and completing the square

Unit: Integration techniques

Today's Specific Content:

- Ø=ÜÖ Article: Ø5Þ6-substitution with definite integrals [10min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Jul 11, 2025

Topic: Integrating using long division and completing the square

Goal: Ø=Ý Work on: Integrating using long division and completing the square + Integrating using trigonometric identities

Unit: Integration techniques

Today's Specific Content:

- Ø=ÜÝ Exercise: Integration using long division [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 4

Saturday, Jul 12, 2025

Topic: Integrating using trigonometric identities
Goal: Ø=Ý Work on: Integrating using trigonometric identities + 2 more topics
Unit: Integration techniques

Today's Specific Content:

- Ø=ÜÝ Exercise: Integration using trigonometric identities [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Jul 13, 2025

Topic: Trigonometric substitution
Goal: Ø=Ý Work on: Trigonometric substitution + Integration by parts
Unit: Integration techniques

Today's Specific Content:

- Ø<ß¥ Video: Trig and u substitution together (part 1) [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Monday, Jul 14, 2025

Topic: Integration by parts
Goal: Ø=Ý Work on: Integration by parts (6 items)
Unit: Integration techniques

Today's Specific Content:

- Ø<ß¥ Video: Integration by parts: "+ln(x)dx [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Jul 15, 2025

Topic: Integration by parts
Goal: Ø=Ý Work on: Integration by parts + 2 more topics
Unit: Integration techniques

Today's Specific Content:

- Ø=ÜÖ Article: Integration by parts challenge [10min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Jul 16, 2025

Topic: Improper integrals
Goal: Ø=Ý Work on: Improper integrals + 2 more topics
Unit: Integration techniques

Today's Specific Content:

- Ø=ÜÝ Exercise: Improper integrals [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Jul 17, 2025

Topic: Integration techniques: Unit test
Goal: Ø=Ý Work on: Integration techniques: Unit test + 2 more topics
Unit: Integration techniques

Today's Specific Content:

- Topic unit test: Integration techniques: Unit test [26min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Jul 18, 2025

Topic: Verifying solutions for differential equations

Goal: Ø=Ý Work on: Verifying solutions for differential equations + Sketching slope fields

Unit: Differential equations

Today's Specific Content:

- Ø=ÜÝ Exercise: Verify solutions to differential equations [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 5

Saturday, Jul 19, 2025

Topic: Reasoning using slope fields

Goal: Ø=Ý Work on: Reasoning using slope fields + Approximation with Euler's method

Unit: Differential equations

Today's Specific Content:

- Ø<ß¥ Video: Approximating solution curves in slope fields [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Jul 20, 2025

Topic: Differential equations: Quiz 1

Goal: Ø=Ý Work on: Differential equations: Quiz 1 + Separation of variables

Unit: Differential equations

Today's Specific Content:

- Ø=ÜË Quiz: Differential equations: Quiz 1 [25min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Monday, Jul 21, 2025

Topic: Separation of variables

Goal: Ø=Ý Work on: Separation of variables + Particular solutions to differential equations

Unit: Differential equations

Today's Specific Content:

- Ø<ß¥ Video: Worked example: separable differential equations [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Aug 7, 2025

Topic: Particular solutions to differential equations

Goal: Ø=Ý Work on: Particular solutions to differential equations + Exponential models

Unit: Differential equations

Today's Specific Content:

- Ø<ß¥ Video: Particular solutions to differential equations: exponential function [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Aug 8, 2025

Topic: Exponential models

Goal: Ø=Ý Work on: Exponential models + Logistic models

Unit: Differential equations

Today's Specific Content:

- Ø<ß¥ Video: Exponential models & differential equations (Part 2) [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Saturday, Aug 9, 2025

Topic: Logistic models

Goal: Ø=Ý Work on: Logistic models + Differential equations: Unit test

Unit: Differential equations

Today's Specific Content:

- Ø<ß¥ Video: Worked example: Logistic model word problem [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Aug 10, 2025

Topic: Differential equations: Unit test

Goal: Ø=Ý Work on: Differential equations: Unit test + 2 more topics

Unit: Differential equations

Today's Specific Content:

- Topic unit test: Differential equations: Unit test [22min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 6

Monday, Aug 11, 2025

Topic: Straight-line motion

Goal: Ø=Ý Work on: Straight-line motion (6 items)

Unit: Applications of integrals

Today's Specific Content:

- Ø<ß¥ Video: Analyzing motion problems: position [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Aug 12, 2025

Topic: Straight-line motion

Goal: Ø=Ý Work on: Straight-line motion + Non-motion applications of integrals

Unit: Applications of integrals

Today's Specific Content:

- Ø<ß¥ Video: Average acceleration over interval [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Aug 13, 2025

Topic: Non-motion applications of integrals

Goal: Ø=Ý Work on: Non-motion applications of integrals + 2 more topics

Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜÝ Exercise: Analyzing problems involving definite integrals [13min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Aug 14, 2025

Topic: Area: vertical area between curves

Goal: Ø=Ý Work on: Area: vertical area between curves (6 items)

Unit: Applications of integrals

Today's Specific Content:

- Ø<ß¥ Video: Area between a curve and the x-axis: negative area [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Aug 15, 2025

Topic: Area: vertical area between curves
Goal: Ø=Ý Work on: Area: vertical area between curves + 3 more topics
Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜÝ Exercise: Area between two curves [6min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Saturday, Aug 16, 2025

Topic: Applications of integrals: Quiz 2
Goal: Ø=Ý Work on: Applications of integrals: Quiz 2 + Volume: squares and rectangles cross sections
Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜË Quiz: Applications of integrals: Quiz 2 [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Aug 17, 2025

Topic: Volume: squares and rectangles cross sections
Goal: Ø=Ý Work on: Volume: squares and rectangles cross sections + 2 more topics
Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜÝ Exercise: Volumes with cross sections: squares and rectangles [6min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 7

Monday, Aug 18, 2025

Topic: Volume: disc method (revolving around x- and y-axes)
Goal: Ø=Ý Work on: Volume: disc method (revolving around x- and y-axes) + 2 more topics
Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜÝ Exercise: Disc method: revolving around x- or y-axis [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Aug 19, 2025

Topic: Volume: washer method (revolving around x- and y-axes)
Goal: Ø=Ý Work on: Volume: washer method (revolving around x- and y-axes) + 2 more topics
Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜÝ Exercise: Washer method: revolving around x- or y-axis [11min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Aug 20, 2025

Topic: Applications of integrals: Quiz 3
Goal: Ø=Ý Work on: Applications of integrals: Quiz 3 + 2 more topics
Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜË Quiz: Applications of integrals: Quiz 3 [13min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Aug 21, 2025

Topic: Applications of integrals: Quiz 4

Goal: Ø=Ý Work on: Applications of integrals: Quiz 4 + Applications of integrals: Unit test

Unit: Applications of integrals

Today's Specific Content:

- Ø=ÜË Quiz: Applications of integrals: Quiz 4 [25min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Aug 22, 2025

Topic: Parametric equations intro

Goal: Ø=Ý Work on: Parametric equations intro + 2 more topics

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø<ß¥ Video: Parametric equations intro [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Saturday, Aug 23, 2025

Topic: Arc length: parametric curves

Goal: Ø=Ý Work on: Arc length: parametric curves + 2 more topics

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø<ß¥ Video: Worked example: Parametric arc length [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Aug 24, 2025

Topic: Vector-valued functions

Goal: Ø=Ý Work on: Vector-valued functions + 2 more topics

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø=ÜÝ Exercise: Vector-valued functions differentiation [12min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 8

Monday, Aug 25, 2025

Topic: Planar motion

Goal: Ø=Ý Work on: Planar motion (6 items)

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø=ÜÝ Exercise: Planar motion (differential calc) [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Aug 26, 2025

Topic: Planar motion

Goal: Ø=Ý Work on: Planar motion + 2 more topics

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø=ÜÝ Exercise: Planar motion (with integrals) [5min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Aug 27, 2025

Topic: Polar functions

Goal: Ø=Ý Work on: Polar functions + 2 more topics

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø=ÜÝ Exercise: Tangents to polar curves [10min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Aug 28, 2025

Topic: Area: polar regions (two curves)

Goal: Ø=Ý Work on: Area: polar regions (two curves) + 2 more topics

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø=ÜÝ Exercise: Area between two polar curves [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Aug 29, 2025

Topic: Calculator-active practice

Goal: Ø=Ý Work on: Calculator-active practice + 2 more topics

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Ø=ÜÝ Exercise: Area with polar functions (calculator-active) [5min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Saturday, Aug 30, 2025

Topic: Parametric equations, polar coordinates, and vector-valued functions: Unit test

Goal: Ø=Ý Work on: Parametric equations, polar coordinates, and vector-valued functions: Unit test + Convergent and divergent infinite series

Unit: Parametric equations, polar coordinates, and vector-valued functions

Today's Specific Content:

- Topic unit test: Parametric equations, polar coordinates, and vector-valued functions: Unit test [4min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Aug 31, 2025

Topic: Convergent and divergent infinite series

Goal: Ø=Ý Work on: Convergent and divergent infinite series + Infinite geometric series

Unit: Series

Today's Specific Content:

- Ø=ÜÝ Exercise: Partial sums intro [6min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 9

Monday, Sep 1, 2025

Topic: Infinite geometric series

Goal: Ø=Ý Work on: Infinite geometric series + 2 more topics

Unit: Series

Today's Specific Content:

- Ø<ß¥ Video: Infinite geometric series word problem: repeating decimal [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Sep 2, 2025

Topic: nth-term test

Goal: Ø=Ý Work on: nth-term test + 2 more topics

Unit: Series

Today's Specific Content:

- Ø=ÜÝ Exercise: nth term test [4min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Sep 3, 2025

Topic: Harmonic series and p-series

Goal: Ø=Ý Work on: Harmonic series and p-series + Comparison tests

Unit: Series

Today's Specific Content:

- Ø=ÜÖ Article: Proof of p-series convergence criteria [10min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Sep 4, 2025

Topic: Comparison tests

Goal: Ø=Ý Work on: Comparison tests + 2 more topics

Unit: Series

Today's Specific Content:

- Ø=ÜÝ Exercise: Limit comparison test [5min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Sep 5, 2025

Topic: Absolute and conditional convergence

Goal: Ø=Ý Work on: Absolute and conditional convergence + 2 more topics

Unit: Series

Today's Specific Content:

- Ø<ß¥ Video: Conditional & absolute convergence [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Saturday, Sep 6, 2025

Topic: Alternating series error bound

Goal: Ø=Ý Work on: Alternating series error bound + Taylor and Maclaurin polynomials intro

Unit: Series

Today's Specific Content:

- Ø=ÜÝ Exercise: Alternating series remainder [12min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Sunday, Sep 7, 2025

Topic: Taylor and Maclaurin polynomials intro

Goal: Ø=Ý Work on: Taylor and Maclaurin polynomials intro + 2 more topics

Unit: Series

Today's Specific Content:

- Ø<ß¥ Video: Visualizing Taylor polynomial approximations [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Week 10

Monday, Sep 8, 2025

Topic: Power series intro

Goal: Ø=Ý Work on: Power series intro + Function as a geometric series

Unit: Series

Today's Specific Content:

- Ø=ÜÝ Exercise: Interval of convergence [18min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Tuesday, Sep 9, 2025

Topic: Maclaurin series of e.2Â 6–â‡,'Â æB 6÷2‡,•

Goal: Ø=Ý Work on: Maclaurin series of e.2Â 6–â‡,'Â æB 6÷2‡,' ƒ, —FV×2•

Unit: Series

Today's Specific Content:

- Ø<ß¥ Video: Maclaurin series of cos(x) [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Wednesday, Sep 10, 2025

Topic: Maclaurin series of e.2Â 6–â‡,'Â æB 6÷2‡,•

Goal: Ø=Ý Work on: Maclaurin series of e.2Â 6–â‡,'Â æB 6÷2‡,' ² &W &W6VçF–ær gVæ7F–öç2 2 ðwer series

Unit: Series

Today's Specific Content:

- Ø<ß¥ Video: Euler's formula & Euler's identity [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Thursday, Sep 11, 2025

Topic: Representing functions as power series

Goal: Ø=Ý Work on: Representing functions as power series + 3 more topics

Unit: Series

Today's Specific Content:

- Ø<ß¥ Video: Converting explicit series terms to summation notation [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Friday, Sep 12, 2025

Topic: Proof videos

Goal: Ø=Ý Work on: Proof videos + Series: Unit test

Unit: Series

Today's Specific Content:

- Ø<ß¥ Video: Finite geometric series formula [8min]

Schedule: 10-11 AM (Calculus 1h) | 2-4 PM (Deep Study 2h) | Video Editing: 11:30 AM & 4 PM

Major Milestones

6/24/2025: Complete Integrals review
Progress: 10% (8.0h total)

6/28/2025: Complete Integration techniques
Progress: 23% (19.4h total)

7/2/2025: Complete Differential equations
Progress: 37% (30.5h total)

7/8/2025: Complete Applications of integrals
Progress: 58% (48.5h total)

7/13/2025: Complete Parametric equations, polar coordinates, and vector-valued functions
Progress: 74% (61.3h total)

7/21/2025: Complete Series
Progress: 100% (83.1h total)

Success Strategies

• Morning session (10-11am): Watch Khan Academy videos & take notes
• Afternoon session (2-4pm): Practice problems & work through exercises
• Take detailed notes and create summary sheets for each topic
• Complete all quizzes and tests as scheduled for proper assessment
• Review previous topics for 15 minutes each week
• Use Khan Academy mobile app during breaks for quick reviews
• Focus on understanding concepts, not just memorizing formulas
• Track your progress daily and adjust timeline if needed

Priority Focus Areas

• Integration techniques and applications (highest priority)
• Sequences and series convergence tests
• Parametric equations and polar coordinate systems
• Differential equations and their applications
• Real-world applications of calculus concepts