Advanced Calculus 2 Summer Study Plan

A Comprehensive Guide to Mastering Calculus 2 Topics

Generated on June 20, 2025

Study Plan Overview

- Total Calculus 2 Study Time: 150 hours
- Daily Calculus Study: 3 hours/day
- Daily Video Editing: 2 hours/day
- Available Study Days: 75 days
- Study Period: Through September 2024

Daily Schedule Template

Time Slot	Activity	Description
10:00 - 11:00 AM	Calculus 2 Study	Focus on current unit topics with Khan
11:00 - 11:30 AM	Light Workout/Break	Physical activity to refresh mind and
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,
4:00 - 5:00 PM	Video Editing Work	Continue part-time job work
Evening	Free Time/Review	Optional review or personal time

Calculus 2 Curriculum Focus

1. Integration and accumulation of change

- Estimated Time: 46 hours
- Topics: 23 topics
- Target Week: 1

2. Applications of integration

- Estimated Time: 38 hours
- Topics: 19 topics
- Target Week: 2

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

- Estimated Time: 26 hours
- Topics: 13 topics
- Target Week: 3

4. Infinite sequences and series

- Estimated Time: 40 hours
- Topics: 20 topics
- Target Week: 4

Weekly Goals & Targets

Week 1 (6/15/2025 - 6/21/2025)

- Goal: Complete 3 topics from Integration and accumulation of change
- Unit: Unit 6: Integration and accumulation of change
- Study Hours: 6h (2 days x 3h/day)
- Topics: Exploring accumulations of change, Approximating areas with Riemann sums...

Note: Only 2 study days this week due to constraints

Week 2 (6/22/2025 - 6/28/2025)

- Goal: Complete 10 topics from Integration and accumulation of change
- Unit: Unit 6: Integration and accumulation of change
- Study Hours: 21h (7 days x 3h/day)
- Topics: Exploring accumulations of change, Approximating areas with Riemann sums...

Week 3 (6/29/2025 - 7/5/2025)

- Goal: Complete 10 topics from Integration and accumulation of change
- Unit: Unit 6: Integration and accumulation of change
- Study Hours: 21h (7 days x 3h/day)
- Topics: Exploring accumulations of change, Approximating areas with Riemann sums...

Week 4 (7/6/2025 - 7/12/2025)

- Goal: Complete 10 topics from Applications of integration
- Unit: Unit 8: Applications of integration
- Study Hours: 21h (7 days x 3h/day)
- Topics: Finding the average value of a function on an interval, Connecting position, velocity, and acceleration functions using integrals...

Week 5 (7/13/2025 - 7/19/2025)

- Goal: Complete 10 topics from Applications of integration
- Unit: Unit 8: Applications of integration
- Study Hours: 21h (7 days x 3h/day)
- Topics: Finding the average value of a function on an interval, Connecting position, velocity, and acceleration functions using integrals...

Week 6 (7/20/2025 - 7/26/2025)

- Goal: Complete 4 topics from Parametric equations, polar coordinates, and vector-valued functions
- Unit: Unit 9: Parametric equations, polar coordinates, and vector-valued functions
- Study Hours: 9h (3 days x 3h/day)
- Topics: Defining and differentiating parametric equations, Second derivatives of parametric equations...

Note: Only 3 study days this week due to constraints

Major Milestones

7/6/2025: Complete Integration and accumulation of change

Progress: 31% (46.0h total)

7/19/2025: Complete Applications of integration

Progress: 56% (84.0h total)

8/12/2025: Complete Parametric equations, polar coordinates, and vector-valued functions

Progress: 73% (110.0h total)

8/26/2025: Complete Infinite sequences and series

Progress: 100% (150.0h 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
- 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 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**
- **Real-world applications of calculus concepts**