Advanced Calculus 2 Summer Study Plan

A Comprehensive Guide to Mastering Calculus 2 Topics

Generated on June 24, 2025

Study Plan Overview

- Total Calculus 2 Study Time: 83.1 hours
- Daily Calculus Study: 3 hours/day
- Daily Video Editing: 2 hours/day
- Available Study Days: 68 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. Integrals review

- Estimated Time: 8.1 hours
- Topics: 18 topics
- Target Week: 1

2. Integration techniques

- Estimated Time: 11.3 hours
- Topics: 10 topics
- Target Week: 2

3. Differential equations

- Estimated Time: 10.9 hours
- Topics: 11 topics
- Target Week: 3

4. Applications of integrals

- Estimated Time: 18.1 hours
- Topics: 19 topics
- Target Week: 4

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

- Estimated Time: 12.9 hours
- Topics: 15 topics
- Target Week: 5

6. Series

- Estimated Time: 21.8 hours
- Topics: 22 topics
- Target Week: 6

Weekly Goals & Targets

Week 1 (6/21/2025 - 6/27/2025)

- Goal: Complete 18 topics from Integrals review
- Unit: Unit 1: Integrals review
- Study Hours: 21h (7 days x 3h/day)
- Topics: Accumulations of change introduction, Approximation with Riemann sums...

Week 2 (6/28/2025 - 7/4/2025)

- Goal: Complete 10 topics from Integration techniques
- Unit: Unit 2: Integration techniques
- Study Hours: 21h (7 days x 3h/day)
- Topics: Integrating with u-substitution, Integrating using long division and completing the square...

Week 3 (7/5/2025 - 7/11/2025)

- Goal: Complete 11 topics from Differential equations
- Unit: Unit 3: Differential equations
- Study Hours: 21h (7 days x 3h/day)
- Topics: Differential equations introduction, Verifying solutions for differential equations...

Week 4 (7/12/2025 - 7/18/2025)

- Goal: Complete 19 topics from Applications of integrals
- Unit: Unit 4: Applications of integrals
- Study Hours: 21h (7 days x 3h/day)
- Topics: Average value of a function, Straight-line motion...

Week 5 (7/19/2025 - 7/25/2025)

- Goal: Complete 10 topics from Parametric equations, polar coordinates, and vector-valued functions
- Unit: Unit 5: Parametric equations, polar coordinates, and vector-valued functions
- Study Hours: 9h (3 days x 3h/day)
- Topics: Parametric equations intro, Second derivatives of parametric equations...

Note: Only 3 study days this week due to constraints

Week 6 (7/26/2025 - 8/1/2025)

- Goal: Complete 0 topics from Parametric equations, polar coordinates, and vector-valued functions
- Unit: Unit 5: Parametric equations, polar coordinates, and vector-valued functions
- Study Hours: 0h (0 days x 3h/day)
- Topics:

Note: Only 0 study days this week due to constraints

Major Milestones

6/24/2025: Complete Integrals review

Progress: 10% (8.1h total)

6/28/2025: Complete Integration techniques

Progress: 23% (19.4h total)

7/2/2025: Complete Differential equations

Progress: 36% (30.3h total)

7/9/2025: Complete Applications of integrals

Progress: 58% (48.4h total)

7/14/2025: Complete Parametric equations, polar coordinates, and vector-valued functions

Progress: 74% (61.3h total)

8/7/2025: 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
- 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**