
The electronic material for the course can be purchased at these website. You need to purchase the digital platform, which includes WebAssign and an electronic copy of the textbook at the cost of $100. Any lesser price may not include the entire package.


We will use webassign, the class key is yet to be determined. WebAssign also provides an access to additional helpful resources.

You could purchase a new or used print copy of the textbook or rent one, but it should be the edition listed on the syllabus. Please read the textbook regularly, you will gain insight into the course material.

Prerequisites. Mastery of Precalculus, Algebra, Trigonometry, and of course Calculus I, is necessary for success in Calculus II. Recommended supplementary materials that can help with some of the prerequisites: ”Just in Time, Algebra and Trigonometry for Students of Calculus” by Brent and Mueller, Addison Wesley, 2006. You should, most importantly, review the material from Calculus 1, Chapters 1-5.2 from Stewart’s textbook plus exponential and logarithmic functions from Chapter 6.

Course Objectives and Lectures. In this course we study mostly Integral Calculus (involving integrals of functions of one variable) and then Sequences and Series. We also focus on some important applications. Calculus II course material includes the following topics:

- Inverse functions, logarithmic and exponential functions.
- inverse trigonometric functions.
- Hyperbolic functions and their inverses.
- L’Hopitals rule.
- Integration by parts.
- Trigonometric integrals.
- Trigonometric substitution.
- Integrating rational functions using partial fractions.
- Approximate integration.
Improper integrals.
Volumes of solids using cross sections.
Volumes of solids of revolution.
Arc length, surface area of surfaces of revolution.
Parametric curves, calculus of curves.
Polar coordinates, polar area and length.
Sequences, Integral test, Comparison test, Alternating series, Absolute convergence.
Power series, Taylor series and Taylor polynomials and applications.

Reading/Preparation. This is a four credit course. It meets for 5 weeks, 4 days a week for three hours each day. You should spend on average at least 8 hours per week in addition to the class time on it. This should include reading the text, doing homework/additional problems, reviewing course notes.

Course materials and Blackboard. The syllabus, written homework assignments, some solutions, and other course materials and announcements will be posted on Blackboard or e-mailed. Please retrieve such information from Blackboard or your Fordham e-mail on a regular basis. You can also use Blackboard for posting questions and having discussions about the material we are working on.

Quizzes, Tests and Final Exam. There will be short quizzes throughout the session, and a couple of Midterm Tests. The final exam is on the last day of class.

Homework. Besides WebAssign there are handouts with assigned problems. The on-line WebAssign platform provides instantaneous feedback and multiple opportunities to correct one’s work. The handouts are posted on Blackboard and also e-mailed. The homework counts as 30%. Extra credit assignments will be provided for the total of at most 3 points.

Attendance. It is important for you and it is also your responsibility to make sure that you know what is happening in class, to be present and engaged. It is beneficial to the class and to you if you participate and ask questions about the material.

Meeting with the instructors. You could stop by my office, JMH 417 before or after class or make an appointment.

Calculators. You need to have at least a scientific calculator. A TI Graphing Calculator (TI 83 or higher) is recommended. Its use may be restricted on tests.

Grade distribution. 45%—tests and quizzes, the lowest quiz will be dropped, 30% homework (written and on-line), and the Final Exam counts 25%. Percentages of at least 90, 80, 70, 60 guarantee grades of at least A-, B-, C-, D, respectively.

College Policy on Academic Integrity. I would also like to draw your attention to the College Policy on Academic Integrity. It explains the Colleges expectations and procedures.

A university, by its nature, strives to foster and recognize originality of thought, which can be recognized only when people produce work that is their’s alone, properly acknowledging information and ideas that are obtained from the work of others.
It is therefore important that students must maintain the highest standards with regard to honesty, effort, and performance. In particular "Academic integrity is honest, thoughtful, and responsible scholarship. Fordham students are expected to maintain the highest standards with regard to honesty, effort, and performance in their academic work."

Disclaimer. The course syllabus is a general plan. The instructor may slightly deviate from the syllabus but all such deviations will be announced.

Best wishes for a successful Summer Session.

1. Schedule of classes and Topics (tentative)

07/02 Sections 6.1-6.4 Exponential and logarithmic functions, Inverse trigonometric functions.

07/08-07/11 Section 6.7 Hyperbolic functions and L’Hospital’s rule, Section 7.1 Integration by parts, Section 7.1-7.2 Integration by parts and trigonometric integrals, Section 7.2-7.3 Trigonometric integrals and trigonometric substitution Section 7.4 Partial fractions

07/15-07/18 Section 7.7-7.5 Partial fractions and strategies for integration Section 7.7-7.8 Approximate integration and improper integrals, Section 5.2 and 5.3 Volumes and volumes of revolution, Section 8.1 and 8.3 Arc length and areas of revolution Midterm Test I is during week 3

07/22-07/25 Sections 10.1-10.2 Parametric curves and calculus of curves, Sections 10.1-10.2 Parametric curves and calculus of curves, Section 10.3 Polar coordinates Section 10.4 Polar area and length, Section 11.2-11.3 Series and the Integral test

07/29 Midterm II

07/30-08/05 Section 11.3-11.4 Integral test and Comparison test, Alternating series and Absolute convergence, Section 11.8-11.9 Power series and Common power series. Section 11.10 Taylor series, Section 11.11 Taylor polynomials. Review

08/06 Final Exam