



MATH 2400 Calculus II

Summer 2020 (June 29---July 31, 2020)

4 undergraduate credits

50 instructional hours

Instructor: TBA

Office: TBA

Telephone: TBA

E-mail: TBA

Office Hours: TBA

OFFICIAL COURSE DESCRIPTION:

This course involves the study of techniques of integration, applications of integrals, infinite sequences and series, power series, Taylor series. *Prerequisite:* Calculus I (Math 2300) or its equivalent.

COURSE GOALS AND LEARNING OBJECTIVES:

- Understand the concepts of definite and indefinite integral
- Learn and use rules and formulas for computing integrals
- Use integrals to solve applied problems: area, volume, arc length, differential equations
- Learn and use tests for convergence of infinite sequences and series of numbers
- Represent functions as Taylor series, and understand their relation to calculus operations
- Develop a theory of 3D geometry and vectors, preparatory to calculus of several variables

INSTRUCTOR'S ATTENDANCE POLICY:

The main course material will be presented through lectures. A discussion session, to be held every Friday will offer an opportunity for students to discuss course material and assigned problems with a teaching assistant (TA). Students are advised to keep pace with the course material as it is being presented. Consequently, students should endeavor to attend all class meetings and discussion sessions, be early for class, and spend sufficient time working on assigned homework problems. If for any reason a student misses a class, he/she should endeavor to obtain the notes and learn the missed material before the next class meeting. Students should not hesitate to ask questions or seek additional assistance to ensure that they are staying on pace with the class. Students will be expected to come to class prepared and ready to participate actively. Please, turn off your cell phones and put aside any unrelated material before class begins. Students should exhibit a sense of responsibility and respect towards fellow students. Late-coming to class or early departure from class meetings will not be allowed.

TEXTS: *Apex Calculus 4.0* (apexcalculus.com)

ASSESSMENTS/COURSE REQUIREMENTS:

Grading: The final grade will be based tests (40%), homework/presentation/attendance (20%), quizzes (15%), and a final exam (25%). The standard Fitchburg State plus/minus grading system will be used.

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|-----------|--------|-------|-------|-------|-------|-------|------------|-----------|
| FSU | 4.0 | 3.7 | 3.5 | 3.3 | 3.0 | 2.7 | 2.5 | 2.3 |
| Letter | A | A- | A-/B+ | B+ | B | B- | B-/C+ | C+ |
| Numerical | 95-100 | 92-94 | 89-91 | 86-88 | 83-85 | 80-82 | 77-79 | 74-76 |
| | | | | | | | | |
| FSU | 2.0 | 1.7 | 1.5 | 1.3 | 1.0 | 0.0 | | |
| Letter | C | C- | C-/D+ | D+ | D | F | IN | W |
| Numerical | 71-73 | 69-70 | 67-68 | 64-66 | 60-63 | 0-59 | Incomplete | Withdrawn |

Homework/Presentations/Attendance: Homework will be assigned every day. On occasion, homework will be presented. On those days, student grades are assigned by participation in the group discussion and check plus/check/check minus on the homework (which could still be collected). So on these days your homework grade includes participation in the presentations (presenting homework and commenting on the presentations) and the completeness of your own work.

Quizzes: In-class activities and announced quizzes can happen throughout the semester. Quizzes will typically come from HW problems. Quizzes are worth 15% of your grade.

Tests and Final Exam: There will be two tests during the semester each worth 20% and one final exam worth 25%. If an exam is missed, you must contact the instructor (via email) within 12 hours to have any chance to make up the exam. If you missed the exam for a legitimate reason, you must make up the exam before the class following the exam.

COURSE OUTLINE and Tentative Schedule:

| | | |
|--------|-------------------------------------|------------|
| Week 1 | Techniques of integration | |
| Week 2 | Applications of integration | Test1 |
| Week 3 | Sequences and Series | |
| Week 4 | Power Series and Taylor Series | Test2 |
| Week 5 | Vectors, Dot product, Cross product | Final Exam |

CLASS POLICIES and Expectations:

1. Attendance will be taken every day and students are expected to attend class.
2. Leave all distractions such as newspapers, crossword puzzles, iPods, and work for other courses at home or packed away.
3. Turn off all cellphones in class. Please set your phone to silent and step outside if you must answer a call.
4. Your enthusiasm, your questions, and your excitement are always welcome in class.

POLICY ON DISABILITY

If you need course adaptations or accommodations because of a disability, if you have emergency medication information, or if you need special arrangements in case the building must be evacuated, please make an appointment at the beginning of the course to talk with me. It is important that the issues relating to disabilities be discussed with me as soon as possible.

GRADE APPEAL

If you disagree with the evaluation of your work or believe an improper grade has been assigned, an appeal may be followed. Please discuss the matter with the instructor and refer to the Fitchburg State University Grade Appeal Policy in the university catalog.

ACADEMIC INTEGRITY POLICY

I expect each student to be honest with themselves and with me and I expect to see YOUR work. I know what the INTERNET might say, I want to know what you say. If you work closely with another student, you should indicate that on your homework.

The faculty at Fitchburg State University require that work submitted in fulfillment of course requirements will be solely that of the individual candidate and all other sources will be cited appropriately. University Academic Integrity Policy, as outlined in the University Catalogue, will be strictly adhered to.

DISTANCE LEARNING & EXTENDED CAMPUS LIBRARY SERVICES

The Gallucci-Cirio Library at Fitchburg State University provides a full range of library services including borrowing privileges; document delivery (books and articles mailed to your home); Interlibrary Loan; reference assistance via: phone, email, IM, Blackboard's Collaboration and Elluminate tools, Skype and in-person; library instruction; research help and more. Any questions relating to library services should be directed to the Linda LeBlanc, Access Services Librarian, at 978-665-3062 or dllibrary@fitchburgstate.edu. There is also a special section for Distance Learning and Extended Campus Services at <http://fitchburgstate.libguides.com/dlservices> outlining the wide range of services available to you and how to access them.