Calculus II (Math 2214–1) (CRN#60234)
Fall 2024, MTRF 1:00PM–1:50PM

Professor: Dr. Jeongho Ahn   Office: CSM 118
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Text: Calculus: Early Transcendentals, 9th edition, James, Stewart, Cengage Learning. 2021

Prerequisites: C or better in Math 2204 (Calculus I)

Course Description: Additional topics in the calculus of functions of one real variable. Techniques of integration (integration by parts, trigonometric substitution, partial fractions, integral tables), approximating definite integrals, improper integrals, applications of the integral, sequences, series, Taylor's Theorem, parametric curves, polar coordinates.

Student learning outcomes for MATH 2214:

1. Apply standard integration techniques including substitution, integration by parts, and partial fractions.

2. Apply methods of integrating improper Riemann integrals.

3. Use integrals to solve application problems including the volume of a solid of revolution, arc length, work, and center of mass.

4. Determine whether an infinite sequence is convergent or divergent using the definition.

5. Determine whether an infinite series is convergent or divergent using standard convergence tests, and distinguish between absolute and conditional convergence.

6. Determine the radius and interval of convergence of a power series.

7. Determine the Taylor series representation of a function.

8. Understand the calculus of parametric equations and the polar coordinate system.

MATH 2214 is linked to the following student learning outcomes for the B.S. /B.S.E. Mathematics degree programs:

- Employ mathematical terminology and notation accurately.

- Communicate mathematics with clarity and effective exposition.

- Read and interpret written material in mathematics effectively.

- Experience interconnections within mathematics through employing calculus techniques.

- Possess the skills to read, interpret, and analyze mathematical problems.

- Employ appropriate techniques, methods, and procedures in solving mathematical problems.

BS Acturial Science PLOs: The B.S. Actuarial Science student will demonstrate understanding of the concepts, corresponding theories, and applications essential to actuarial analysis (mathematics, statistics, finance, economics, and accounting.

Grading

- Quizzes:10%   In-class tests:60%   Final exam:30%

- Grades are assigned on the following basis:

	A	B	C	D	F
From	90	80	70	60	0
To	100	89	79	69	59

Homework & Quizzes

- It is expected that you will complete each homework. We note that diligent completion of homework assignments is essential to successful completion of this course. So you should plan on spending at least two hours of work outside of class for each hour of class time to be successful.

- There will be a quiz **every Friday class**.

Tests & Final Exam

- You will take **three** in-class tests during the semester.

- You will see the dates for each test in assignment sheets.

- The final exam is comprehensive and may include all materials covered during the semester.

- **The final exam Schedule: Dec 9 (Monday), 2:45PM–4:45PM**

Last Day to Drop a Course or Withdraw from the University: Nov 22 (Fri)

Class Policies

1. Attendance: As stated in the student handbook, "Students should attend every lecture, recitation, and laboratory session of every course in which they are enrolled." Students who have more than **eight unexcused** or **four consecutive unexcused absences** will be assigned an "F" for this course. When possible, you should give advanced notice of absences. If you miss more than six classes, please come to see me.

2. Calculators: You should have a graphing calculator for this course. The purpose of using a calculator is to help you better understand examples for a large portion of the material and check your answers.

3. Academic Dishonesty: When you take a test, you are not allowed to communicate in any fashion with anyone except myself. In addition, you are not allowed to view another student's work, share paper or calculators.

4. Demeanor:
   (1) If you **distract** other students from studying during class, you will be asked to leave class. If it is the second time, you will be administratively dropped.
   (2) **Please turn your cellular phone off before you come to class.**
   (3) **You are not allowed to put your phone in the desk and to go to a bathroom, when you take all the quizzes or the tests.**

5. Make-ups: **There is no make-up of exams and quizzes, including the final, if I am not notified in advance.**

Additional Notes

- The course plan may be modified during the semester. Such modifications will be announced during class periods; the students have responsibility for keeping up with such changes.

- Students who require academic adjustments in the classroom due to a disability must first register with ASU Disability Services. Following registration and within the first two weeks of class, please contact me to discuss appropriate academic accommodations. Appropriate arrangements can be made to ensure equal access to this course.

- Tutoring centers:
  1. Math Center is located in this building.
  2. Smart Center is located in the science building.
  3. Learning Commons is located in the Dean B. Ellis Library.

Dr. Jeongho Ahn's Schedule for Fall 2024

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00					Office Hours
10:00	Diff. Eqs Math 4403 CSM 131	Office Hours	Diff. Eqs Math 4403 CSM 131	Office Hours	Diff. Eqs Math 4403 CSM 131
11:00	Office Hours	Discrete Struc. Math 2183 HSS 2028		Discrete Struc. Math 2183 HSS 2028	
12:00					
1:00	Calculus II Math 2214 HSS 2028	Calculus II Math 2214 HSS 2028		Calculus II Math 2214 HSS 2028	Calculus II Math 2214 HSS 2028
2:00					

**If the above office hours conflict with your schedule,
please email me to arrange a meeting time.**