Instructor:
- Jingyu Huang

Class Time and Place:
- 10:45 AM - 11:35 AM
- Monday, Tuesday, Wednesday, Friday
- LCB219
- Optional problem session: Thursday, 10:45 AM - 11:35 AM, JWB 335.

Office Hours:
- 9:40 - 10:40 AM, Wednesday.

Office Location:
- JWB209

Email Address:
- jhuang@math.utah.edu

Text:

Prerequisite:
- "C" or better in (MATH 1210 OR MATH 1250 OR MATH 1270 OR MATH 1311 OR MATH 1310) OR AP Calculus AB score of at least 4 OR AP Calculus BC score of at least 3.

Course Description:
- Geometric applications of the integral, logarithmic, and exponential functions, techniques of integration, conic sections, improper integrals, numerical approximation techniques, infinite series and power series expansions, differential equations (continued).

Expected Learning Outcomes:
- Compute derivatives and integrals for exponential, logarithmic, hyperbolic functions, and inverse trigonometric functions.
- Integrate integrable functions using integration by parts, u-substitution, trigonometric substitutions, rationalizing substitutions, partial fraction decomposition, and trigonometric identities. This includes knowing which techniques to apply to a given integral.
• Use L'Hopital's Rule to calculate indeterminate-type limits and also know what limits are the non-indeterminate forms and how to compute those limits.

• Compute improper integrals.

• Understand the difference between an infinite sequence and infinite series and determine if a sequence converges or diverges.

• Determine whether or not an infinite series of numbers converges or diverges using a variety of tests.

• Understand what it means for a Power Series to converge or diverge and be able to find the Taylor Series for a given function.

• Differentiate and integrate functions in polar coordinates.

Tutoring Lab:

• T. Benny Rushing Mathematics Student Center (adjacent to JWB and LCB), Room 155, M - Th 8 a.m. - 8 p.m. F 8 a.m. - 6 p.m.

• They are also offering group tutoring sessions. If you’re interested, inquire at the Tutoring Lab. http://www.math.utah.edu/ugrad/tutoring.html

Computer Lab:

• also in the T. Benny Rushing Mathematics Student Center, Room 155C. M - Th 8 a.m. - 8 p.m. F 8 a.m.- 6 p.m.

• Link to computer lab is http://www.math.utah.edu/ugrad/lab.html

Lecture Videos:

• http://www.math.utah.edu/lectures/math1220.html

Grading:

• Homework 20%, Midterm 20%, Midterm 20%, Midterm 10%, Final Exam 30%

• Note: There will be 3 midterms. Your lowest midterm score will count for 10% of your grade and your top two midterm scores will each count for 20% of your final grade.

• Late homework is not accepted without a valid excuse.

Exam Dates:

• Midterm 1: February 10, Cover Sections 6.1 to 7.1.

• Midterm 2: March 9, Cover Sections 7.2 to 8.4

• Midterm 3: April 6, Cover Sections 9.1 to 9.7

• Final Exam: May 4, 10:30 am - 12:30 pm, Comprehensive.
• Note: the materials covered in each midterm exam are subjected to change depending on our progress.

Calculators:

• Only scientific calculators are allowed. (No programmable calculators will be allowed ever).

Grading Scale:

• A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), E (0-59).

Important Dates:

• http://registrar.utah.edu/academic-calendars/spring2016.php

ADA Statement:

• The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services (CDS), 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and me to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to CDS.

Student Responsibilities:

• All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. http://regulations.utah.edu/academics/6-400.php