

THE UNIVERSITY OF TEXAS AT EL PASO

COLLEGE OF SCIENCE

Department of Mathematical Sciences

Course #: MATH 1312 005 (CRN 11170)
Course Title: Calculus II
Credit Hrs: 3
Term: Fall 2022
Course Meetings & Location: MW 9:00 am – 10:20 am, Liberal Art Building 204
Prerequisite Courses: MATH 1411
Course Fee (if applicable) None

Instructor: Dr. Son-Young Yi
Office Location: Bell Hall 218
Contact Info: E-mail syi@utep.edu
Phone (915) 747-6864
Office Hours: MW 1:30 pm - 2:30 pm or by appointment

Textbook Calculus, 12th Edition, by Larson and Edwards, Brooks/Cole Cengage Learning, 2017. Note that an electronic version of the book will be available through WebAssign using the following information:

Instructor	Section	Class Key
Son-Young Yi	MATH 1312, section 005	utep 1218 5646

Course Website: Blackboard

Course Objectives (Learning Outcomes): This course is the second part of the calculus sequence. In Calculus I, you were introduced to the three fundamental notions upon which calculus is built: limits, derivatives, and integrals. Our main objectives of this course are

1. to deepen the comprehension of these notions through conceptual discussions and the investigation of many problems and applications.
2. to master more advanced methods and techniques, and apply them to the solution of a variety of problems.

Course Activities/Assignments: **Homework:** Homework problems will be given for each covered section and collected via Blackboard. The homework will be graded based on completion.

Quizzes: There will be bi-weekly quizzes except for the weeks of exams. The problems will be taken directly from the homework problems or at least very similar to them. No make-up quizzes will be allowed. However, the two lowest quiz scores will be dropped at the end of the semester.

Course Schedule:

- 8/22: Course introduction & Calculus I review
- 8/24: Sec. 8.1 Basic integration rules
- 8/29: Sec. 8.2 Integration by parts
- 8/31: Sec. 8.3 Trigonometric integrals
- 9/05: **No class** (Labor Day Holiday)
- 9/05: Sec. 8.4 Trigonometric substitution
- 9/12: Sec. 8.5 Partial fractions
- 9/14: Sec. 5.6 Indeterminate forms and L'Hopital's rule
- 9/19: Sec. 8.8 Improper integrals
- 9/21: Review for the Midterm 1
- 9/26: **Midterm 1**
- 9/28: Sec. 7.1 Area of a region between two curves
- 10/03: Sec. 7.2 Volume: the disk method
- 10/05: Sec. 7.3: Volume: the shell method
- 10/10: Sec. 7.4: Arch length and surfaces of revolution
- 10/12: Sec. 7.5: Work
- 10/17: Sec. 9.1 Sequences
- 10/19: Sec. 9.2 Series and Convergence
- 10/24: Review for the Midterm 2
- 10/26: **Midterm 2**
- 10/28: **Drop/Withdrawal deadline**
- 10/31: Sec. 9.3 The integral test and p-series
- 11/02: Sec. 9.4 Comparison of series
- 11/07: Sec. 9.5 Alternating series
- 11/09: Sec. 9.6 The ratio and root tests
- 11/14: Sec. 9.7 Taylor polynomials and approximations
- 11/16: Sec. 9.8 Power series
- 11/21: Sec. 9.9 Representation of functions by power series
- 11/23: Sec. 9.10 Taylor and MacLaurin series
- 11/28: Chapter 9 review
- 11/30: Review for the final exam
- 12/07: **Final exam @ 10:00 am – 12:45 pm**

Assessment of Course Objectives: The final grade will be based on homework, quizzes, two midterm exams, and a final exam. No books, notes, or programmable calculators will be allowed on the exams. A basic scientific calculator can be used.

Midterm 1: Monday, Sept. 26,

Midterm 2: Wednesday, Oct. 26,

Final exam: Wednesday, Dec. 7 @ 10:am – 12:45 pm.

Grading Policy: Quizzes: 15%, Homework 15%, Midterm exams: 20% each, Final exam: 30%

Note: A grade of Incomplete will be given only in extraordinary circumstances confined to a limited event. If the student has missed a significant amount of work (e.g. multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.

Make-up Policy: **No make-up/alternate exam** will be given.

Course Drop Policy: The UTEP Fall 2022 drop deadline is **Friday, Oct. 28, 2022**. The College of Science will remain aligned with the University and not approve any drop requests after that date.

Attendance Policy: It is student's responsibility to attend every class. Students are expected to arrive for class on time and to remain for the class entire period.

Academic Integrity Policy: <http://admin.utep.edu/Default.aspx?PageContentID=2083&tabid=30292>

Civility Statement: Please do not use cell phones for laptops during class. Cell phones should be set to silent or vibrate, and any calls should be taken outside of class. Please do not wear headsets or blue tooth devices during class.

Disability Statement: If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Military Statement: If you are a military student with the potential of being called to military service and/or training during the semester, please contact me by the end of the first week of class.

Covid 19 Precaution Statement

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID 19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org