

Sul Ross State University
Course Syllabus
MATH 3415-001, Z01: Calculus III
Fall 2020

Instructor: Dr. Angela M. Brown

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Office Hours: M 9:30-11, W 10-11, T 3:30-5:00, others by appointment

Time and Place of Class Meetings: TR 11:00-12:15 pm ACR 108, Lab W 3:00-3:50 pm ACR 203

Course Prerequisites: C or better in MATH 2414 or consent of the instructor.

Mathematics Program Learning Objectives: The graduating student should be able to

- Apply knowledge of basic mathematics principles.
- Identify and provide valid proofs or solutions for theorems or problems.
- Recognize and dispute invalid mathematical statements by using counter-examples.

Course Objectives:

- The student will be able to find dot and cross products of vectors.
- The student will apply vectors to solve some problems encountered in Geometry and Physics.
- The student shall be able to interpret a double integral and a triple integral and evaluate said integrals using multiple methods.
- The student will be able to define vector functions
- The student will be able to apply basic theorems in vector calculus such as the Green's Theorem, Stoke's Theorem, and the Divergence Theorem.
- The student will apply various techniques learned in this and previous courses in the Calculus sequence to understand the properties of certain three dimensional objects.

Required Textbooks: *Calculus Concepts & Contexts*, 4th ed, Stewart ISBN 0-495-55742-0. Homework will be assigned from the text.

Other Equipment Needed: paper and pencils.

Grading Scale: 90-100 A, 80-89 B, 70-79 C, 60-69 D, 59-Below F

Grading Policy: The grade weighting will be as follows:

Quizzes/Homework: 25%

Exams:40%

Laboratories: 10%

Final Exam: 25%

or

Quizzes/Homework: 0%

Exams:50%

Laboratories: 20%

Final Exam: 30%

Quizzes/Homework: Quizzes will be given periodically. Homework will be assigned daily and submitted to Blackboard by the due date. Homework will be graded on completion and accuracy. Copying answers out of the back of the book is plagiarism and will be prosecuted.

Exams:

No make-up exams will be given. If there is a valid reason for missing an exam, then the grade for the missed exam will be replaced by the grade on the final exam. Otherwise, a missed exam will be a zero. Exams will be open book and no calculator will be allowed unless told otherwise. All exams will be take home exams this semester.

Lab time will be used in a variety of ways. It may be used to answer questions we did not get to in class, extra assignments to gain a deeper understanding, or quizzes.

Final Exam Date: Monday, December 7, 12:30-2:30 pm

Attendance Policy: Students are expected to attend every class. If class must be missed, the student is expected to get the notes from a classmate, and to check with me or on Blackboard for announcements and updated assignments.

Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class.

It is policy of the university to drop a student with a grade of "F" if 9 hours or more of class are missed. For this course that would be 6 or more class sessions missed.

Cell Phone Policy: Cell phones are not allowed in class. They can not be used as calculators on any assignment. Any phone ringing during class will be taken up until the end of class. If a phone rings during a test or quiz, the student will forfeit their right to finish said test or quiz.

Americans With Disabilities Act: Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each

class. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email rebecca.wren@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas, 79832.

Library Services: The Sul Ross Library offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires your LoboID and password. Check out materials using your photo ID. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

Distance Education Statement: Students enrolled in distance education courses have equal access to the university's academic support services, such as Smarthinking, library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login information to verify students' identities and to protect students' information. The procedures for filing a student complaint are included in the student handbook. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website.

Covid-19 Policies: A mask must be worn at all times while in public spaces indoors or outdoors. This mask must cover your mouth and nose. Students not wearing a mask will be required to leave class for the day and can be reported to the Dean of Student Life. If you are sick or have been around someone who has tested positive for Covid-19, do not attend class in person. This course has an attached zoom section that you can attend. Other policies will be attached as a separate document.

Important Dates:

August 24	First Day of Classes
August 27	Last Day for Late Registration and Schedule Changes
September 7	Labor Day
September 9	12th Class Day
November 11	Veteran's Day Holiday
November 13	Last Day to Withdrawal from University or Drop Classes with a Grade of "W" (by 4 pm)
November 24	Last in person class day; all move online after this date
November 25-27	Thanksgiving Holiday
December 2	Last Day of Classes
December 3	Dead Day
December 4, 7-9	Final Exams

Tentative Schedule-Subject to Change

	Monday		Wednesd
Aug 25	Three Dimensional Systems	Aug. 27	Vector
Sept. 1	Vectors	Sept. 3	Dot Prod
Sept. 8	Cross Products	Sept. 10	Equations of Lines
Sept. 15	Functions of Surfaces	Sept. 17	Polar, Cylin and Spherical C
Sept. 22	Vector Functions, Calculus of Vector Functions	Sept. 24	Arc Length and
Sep 29	Motion in Space	Oct 1	Functions of sever
Oct. 6	Partial Derivatives	Oct. 8	Tangent Planes and Lin
Oct. 13	Directional Derivatives and Gradient Vectors	Oct. 15	Second Partial De
Oct. 20	LaGrange Multipliers	Oct. 22	Double Integrals ov
Oct. 27	Double Integrals Over a General Region	Oct 29	Double Integrals in P
Nov. 3	Applications of Double Integrals	Nov. 5	Surface Area
Nov. 10	Triple Integral over Rectangular Boxes	Nov. 12	Triple Integral over C
Nov. 17	Triple Integrals with	Nov. 19	Change of Variables in
Nov. 24 Cylindrical and Spherical Coordinates	Change of Variables in Multiple Integrals 7	Nov.26	Thanksgiving
Dec. 1	Final Review		