

MATH 2413: Calculus I, Fall 2019

Contact Information

Instructor: Karl Havlak
Office: MCS 220A
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Office Hours:

8:55 – 9:55 a.m., 1:00 – 2:00 p.m., MWF;
8:00 – 9:00 a.m., W;
9:30 – 11:00 a.m., TR
or by appointment

Textbook

Essential Calculus: Early Transcendentals (Second Edition) by James Stewart.

Blackboard

This course has an associated [Blackboard page](#)ⁱ where you will have access to grades, assignments, videos, handouts, and other course-related items.

MyOpenMath

This course will also use a free online homework system for some of the homework assignments. Please go to [MyOpenMath](#)ⁱⁱ to create an account. First select “Register as a new student”, create (and remember) your user name and password, enter Course ID 51083, and enter the Enrollment Key 2413201910.

Course Content

Selected sections from chapters 1 through 5 will be studied.

Grading System

The final average will be determined according to the weights in the table that follows.

Activity	Date	Weight
Exam I	September 19 (Thu)	10-20%
Exam II	October 8 (Tue)	10-20%
Exam III	October 24 (Thu)	10-20%
Exam IV	November 12 (Tue)	10-20%
Exam V	November 26 (Tue)	10-20%
Final Exam	December 10 (Tue)	20%
Quizzes	Regularly	5%
Homework	Most Days	10%

Grading Policy

To determine the average needed to ensure that you obtain the grade that you want in this course, consult the table that follows.

Average	Grade
89.5 and above	A

Average	Grade
79.5 to 89.5	B
69.5 to 79.5	C
59.5 to 69.5	D
below 59.5	F

Homework Policy

Two homework sets will be assigned most days. One homework set will be a short assignment from the textbook that will be worked out by hand and submitted at the beginning of the next class meeting (except for exam dates). The second homework set will be completed online at MyOpenMath and will be due before midnight on the Wednesday of the following week. The lowest 6 homework grades will be dropped at the end of the semester when determining the homework average. I will accept up to 3 late assignments during the semester. No other late assignments will be accepted for any reason. If you have trouble completing a homework assignment, please see me for assistance.

Quizzes

There will be regular short quizzes (5 minutes or less) at the beginning of class throughout the semester. The quizzes will be over basic concepts learned in class. The quizzes will begin at 8:00 a.m. and cannot be made up. Quizzes will be announced in advance. I will drop the 2 lowest quizzes.

Exams

There will be five mid-semester exams scheduled as shown above, which will account for 65% of your final grade. The highest of these exams will account for 20% of your final grade, the lowest three of these exams will each account for 10% of your final grade, and the remaining exam will account for 15% of your final grade. In addition to these exams, there will be a *comprehensive* Final Exam on Tuesday, December 10, 8:00 a.m. – 10:00 a.m. The Final Exam will account for 20% of your grade.

Attendance

Attendance will be taken regularly. Please inform me of any absences prior to the absence whenever possible.

Student Responsibilities

The student is *solely* responsible for:

- Completing each assignment by the specified due date.
- Obtaining assignments and other materials for classes from which they are absent.
- Utilizing, as needed, all available study-aid options (including meeting with the instructor, referring to outside texts, etc.) to resolve any questions that they might have regarding homework, course material, etc.
- Realizing from the beginning of the course the grade that they may need or want to graduate, maintain a scholarship, stay in athletics, etc. ... and give as much effort as it takes to obtain this grade.

Student Disability Services

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination

by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services [website](#)ⁱⁱⁱ. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

Online: [Title IX Incident Form](#)^{iv}
Face to Face: Mayer Administration Building, Room 210
Phone: 325-942-2022
E-Mail: michelle.boone@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325- 942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942- 2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [ASU Title IX website](#)^v.

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. The full details can be found in ASU Operating Policy OP 10.19 [Observance of Religious Holy Days](#)^{vi}.

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)^{vii} for more information.

Student Conduct Policies

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the Statement of [Academic Integrity](#)^{viii}

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#) in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the [ASU Writing Center](#)^{ix}.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

General Policies Related to this Course

- All students are required to follow the policies and procedures presented in these documents:
 - [Angelo State University Student Handbook](#)^x
 - [Angelo State University Catalog](#)^{xi}
- In the event that the university is closed for a scheduled class time, whatever was scheduled for that day and/or whatever was due that day will be scheduled and/or due on the next scheduled class time.
- All electronic correspondence will be sent to your ASU e-mail account unless other arrangements are made.
- Feel free to come by my office at any time for help. I will definitely be near my office during my office hours (or there will be a note telling you when I will be back). If my office hours are not convenient for you, meet with me to arrange for another time that is more convenient.
- Good luck. I sincerely hope you do well in this course, and I strongly encourage you to use me as a resource outside of class to help you succeed.

All items contained in this syllabus are subject to change as the semester progresses. Students will be notified in advance of any changes.

Mathematics 2413 – Calculus I Student Learning Outcomes

1. **Students will demonstrate factual knowledge of the mathematical notation and terminology used in this course.** Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in Calculus I as they pertain to functions, limits, derivatives, and integrals.
2. **The students will describe the fundamental principles including the laws and theorems arising from the concepts covered in this course.** Students will identify and apply the laws and formulas that result directly from the definitions; for example, domain and range of a function, operations on functions, the limit laws, the differentiation formulas, and the Fundamental Theorem of Calculus.
3. **The students will apply course material along with techniques and procedures covered in this course to solve problems.** Students will use the facts, formulas, and techniques learned in this course to sketch graphs of functions, to study position-velocity-acceleration problems, to solve related rate and optimization (“max-min”) problems, and to determine the area under the graph of a function.
4. **Students will develop specific skills, competencies and reasoning abilities to support further study or work in this or related fields.** Students will acquire a level of proficiency in the fundamental concepts and applications necessary for further study in academic areas requiring Calculus I as a prerequisite, or for work in occupational fields requiring a background in Calculus I. These fields might include computer science, engineering, the physical and natural sciences as well as mathematics.

Course Content

Content consists of the following topics, listed according to the corresponding chapters in the text. (See textbook “Contents.”)

- Chapter 1 – Functions and Limits:** Functions and Their Representations, A Catalog of Essential Functions, The Limit of a Function, Calculating Limits, Continuity, Limits Involving Infinity.
- Chapter 2 – Derivatives:** Derivatives and Rates of Change, The Derivative as a Function, Basic Differentiation Formulas, The Product and Quotient Rules, The Chain Rule, Implicit Differentiation, Related Rates, Linear Approximations and Differentials.
- Chapter 3 – Inverse Functions:** Derivative of Logarithmic and Exponential Functions, Inverse Trigonometric Functions, Indeterminate Forms and l’Hospital’s Rule.
- Chapter 4 – Applications of Differentiation:** Maximum and Minimum Values, the Mean Value Theorem, Derivatives and Shapes of Graphs, Curve Sketching, Optimization Problems, Antiderivatives.
- Chapter 5 – Integrals:** Areas, the definition of the definite integral, the Fundamental Theorem of Calculus, properties of the definite integral, indefinite integrals, substitution.

Anticipated Daily Schedule

The table below estimates the section that will be discussed on the date listed. Specific sections along with any handouts for those sections will be updated throughout the semester in Blackboard.

Day	Activity
August 26	Precalculus Review
August 28	Precalculus Review
August 29	Precalculus Review
August 30	Precalculus Review
September 2	Holiday
September 3	1.3
September 5	1.3, 1.4
September 6	1.4
September 9	1.4, 1.5
September 10	1.5
September 12	1.6
September 13	1.6
September 16	2.1
September 17	2.1, 2.2
September 19	2.2
September 20	Exam 1
September 23	2.2, 2.3
September 24	2.3
September 26	2.4
September 27	2.4
September 30	2.5
October 1	2.5

Day	Activity
October 3	2.6
October 4	2.6, 2.7
October 7	2.7
October 8	Exam 2
October 10	2.8
October 11	3.1, 3.2
October 14	3.2
October 15	3.3
October 17	3.3
October 18	3.5
October 21	3.5
October 22	3.6, 3.7
October 24	3.7
October 25	Exam 3
October 28	3.7
October 29	4.1
October 31	4.1, 4.3
November 1	4.3
November 4	4.3
November 5	4.3, 4.5
November 7	4.5
November 8	4.5, 4.2
November 11	Exam 4
November 12	4.2, 4.7
November 14	4.7, Appendix B
November 15	5.1
November 18	5.2
November 19	5.2, 5.3
November 21	5.3
November 22	5.3, 5.4
November 25	5.4
November 26	Exam 5
November 28	Holiday
November 29	Holiday
December 2	5.5
December 3	5.5
December 5	5.5, review
December 6	review
December 10	Final Exam 8:00 a.m. – 10:00 a.m.

ⁱ Blackboard Link: <http://blackboard.angelo.edu>

ⁱⁱ MyOpenMath Website: <https://www.myopenmath.com/>

ⁱⁱⁱ Student Disability Services Link: www.angelo.edu/ADA

^{iv} Title IX Incident Form: <http://www.angelo.edu/incident-form>

^v ASU Title IX Website: <http://www.angelo.edu/title-ix>

^{vi} Observance of Religious Holy Days: <http://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

^{vii} Grading Procedures: <http://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

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- viii Academic Integrity: <http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>
- ix ASU Writing Center: http://www.angelo.edu/dept/writing_center/academic_honesty.php
- x Student Handbook: <http://www.angelo.edu/student-handbook/>
- xi University Catalog: <http://www.angelo.edu/catalogs/>