

Syllabus

MATH 2413 03E Calculus 1 Spring 2022 Dr. Minchul Kang

Texas A&M University - Commerce, Department of Mathematics, B321 Binnion Hall, Commerce, TX 75429, USA. 🕿: (903) 886-5957

Part 1 General Information

Course Information

DRMATION Course : MATH 2413 03E Calculus I Semester : Spring 2022

INSTRUCTOR

:	Dr. Minchul Kang
:	Binnion 321
:	$\rm MW~2~PM-3PM$
	$\rm TTh \ 12 \ PM - 2 \ PM$
	By appointment
:	a : (903) 886-5957
	:

- The instructor reserves the right to make modifications to this syllabus. Students will be notified in class & by email.
- I will do my best to make a quality presentation each day and, in return, I expect that you will do your best to learn the material presented in class and in the text.
- This course will be taught as hands-on as possible, and student participation is necessary daily.
- □ It is important that you be actively engaged in any group activities.
- Questions are welcome in the classroom, and I will gladly schedule outside help sessions if necessary.
- D Together, these efforts can contribute significantly to your education in this class.

INTERACTION WITH		
INSTRUCTOR	1. Students will be expected to interact with the instructor(s) in class or via electronic means in an appropriate manner.	
	2. Please use email to facilitate a quick response.	
Withdrawal Policy:		

 Concerning the deadlines and consequences of withdrawals please check on: https://ems.tamuc.edu/MasterCalendar/MasterCalendar.aspx

Part 2 Course Information

Course

DESCRIPTION This course examines differential and integral calculus of functions of one variable, as follows. Topics include limits; continuity; derivatives; curve sketching; applications of the derivative; the definite integral; derivatives and integrals of trigonometric functions; and use of computer technology.

STUDENT LEARNING OUTCOME AND ASSESSMENT Upon completion of the course, students will be able to:

- 1. Understand the meaning of limit, continuity and derivative.
- 2. Learn methods and techniques to find derivatives.
- 3. Apply differentiation techniques to solve applications including related rates and optimization problems.
- 4. Use first and second derivative tests to graph a function.
- 5. Learn basic integration techniques.
- 6. Evaluate Riemann sums and define area under a curve.
- 7. Learn the fundamental theorem of calculus.

Part 3 Course Requirement

Textbook

Recommended but not required textbook

- ${\scriptstyle \circ}$ Calculus: Early Transcendentals (9th Ed.) by James Stewart, Brooks Cole. ISBN-10: 1337613924
- Calculus: Early Transcendentals, (10th Ed.) by Howard Anton and Irl Bivens, Wiley, ISBN-10: 0470647698
- Calculus (10th Ed.) by Ron Larson and Bruce H. Edwards, Cengage Learning, ISBN-10: 1285057090

Course Prerequisites

• Two years of high school algebra and trigonometry or Math 2312.

Instructional Format & Techniques

- 1. This course will be taught using multiple formats: lecture, downloadable lecture notes, problem sets, examinations, and student projects.
- 2. Additional instructional methods include a textbook, the Worldwide Web, online homework system, and online quiz system.

Course materials

- All the course materials including lecture notes can be found at D2L.
- Homework will be posted at https://webwork.runestone.academy/webwork2/tamuc-kang-mathspring-2022/
 - $\circ~$ Click on the course name
 - $\circ\,$ Your ID and password will be your TAMUC CWID number.
- For online quiz, visit https://kahoot.com/
 - Download a Kahoot app for your smart phone or tablet.

Part 4 Course Requirement

Attendance Policy

- 1. Attendance is a vital part of the learning process and as a result, there will be a penalty for missed classes. Attendance is mandatory and class attendance will be taken at each class session.
 - (a) Excuses will be accepted only for major problems; students are expected to use their allowed absences wisely to cover special activities, family emergency, and minor illnesses.
 - (b) When an excused absence is requested the absence must be documented and beyond the student's control.
 - (c) Your reason for missing class should be legitimate supported by proper documentation.
 - (d) Please speak to the professor if you have special circumstances affecting your attendance.
 - (e) There will be bonus poins from the attendance.
- 2. Excessive absences may result in being dropped from the course.
 - (a) Students who are absent more than **15 times** (including recitations), for whatever reason, are subject to the instructor dropping them from the course.
 - (b) Any student who is close to this number of absences should come to the instructor before they accumulate four absences in the course.

Homework

- 1. Homework will be assigned after just about every class.
- 2. It is extremely important for you to work all homework in order to be prepared for the exams because approximately 80% of test problems will be from homework with minor modifications.
- 3. Late work will not be accepted.
- 4. The top 90% homework scores will count: A missed homework assignment or two, due to legitimate absence, will not adversely affect your grade as long as you have kept up with all other assignments.

Quizzes:

- 1. There will be irregular online quizzes throughout the semester (Be on time!!).
- 2. The quiz score will be added as a bonus score toward the next test.

Part 5 Course Schedule and Grading

TENTATIVE С

CLASS	Week 01	Introduction to Calculus			
Schedule	Week 02 The limit of a function				
	Week 03	Continuity $\ell \epsilon - \delta$ definition			
	Wook 04	Limits and Continuity for Transcondental and Inverse Functions			
	Week 04	Thinks and Continuity for Transcendential and Inverse Functions			
		Test 1 Friday Febuary 11, 2022			
	Week 05	Differentiation and Derivative Functions			
	Week 06	Product, Quotient and Chain Rules			
	Week 07	Implicit and Inverse Differentiation			
	Week 08	Related Rates, Differentials, and Local Linear Approximation			
	Test 2 Friday March 11 2021				
	Week 09	L'Hôpital's Rule and the limit of Indeterminate Forms			
	Week 10	Analysis of Functions by derivatives			
	Week 11	Maximum and Minimum Problems			
	Week 12	Rolle's Theorem; Mean - Value Theorem			
		Test 3 Friday April 8, 2021			
	Week 13	Antidifferentiation, Indefinite Integral and Area			
	Week 14	Application of definite integration			
	Week 15	Review			
		Test 4 Friday May 6, 2021			
	F	Final Test: Monday May 9, 1030 AM to 1230 PM			

Grading Policy

At the end of this course, the final grade will be determined mainly by the success in tests and homework : Homework (20%) + Midterms (50%) + Final (30%) + Bonus (10%)

1. Homework (20%)

 $\hfill\square$ The 90% homework scores will count.

2. Midterm exams (50%)

- There will be 4 midterm exams
- No make-up exam will be given unless confirmed ahead of time and accompanied by a documented, university excused absence.
- In the case of absence for tests due to unavoidable or legitimate circumstances the test score will will be replaced by the average of other midterm test scores.

3. Final exam (30%)

- There will be one comprehensive final exam for this course.
- All final exam will be from midterm exams with minor modifications.
- No make-up for the final exam will be given unless confirmed ahead of time and accompanied by a documented, university excused absence.

4. Bonus points/ Extra Credits (10%)

- ^D There will be bonus points from participation (No penalty for a wrong answer).
- There will be attendance points.
- $_{\odot}\,$ If you make over 100% from the test due to bonus points, your score will max out to 100 % and the extra points over 100 % will expire immediately.

Letter	
GRADE SCALE	

Grade	Final Point	Meaning	Quality point
A	100-90	Superior	4.00
В	89-80	With merit	3.00
С	79-70	Satisfactory	2.00
D	69-60	Poor but passing	1.00
F	59-0	Failure	0.00
******** Grades won't be curved *******			

1. Your final grade will be computed based on

(Final Point) = (Homework) 0.2 + (Midterm Average) 0.5 + (Final Score) 0.3

2. Please be aware that your final grade won't be curved.

TUTORING SERVICES:

The Math Skills Center

- Free tutoring service is provided by the Math Skill Center (Binnion Hall Room 328).
- For information on which tutors would be best to help, and when they are working, feel free to see me or the bulletin board outside the lab
- □ You are welcome and encouraged to use office hours if you need any help during the semester.
- Current hours of operation
 - Monday and Wednesday, 8am 8pm
 - $\circ\,$ Tuesday and Thursday, 8am 6pm
 - Friday, 8am Noon

Academic Success Center

- The Academic Success Center offers tutoring in the library, as well as Supplemental Instruction.
- Their hours can be found on the university web site.

Mach III/TRIO Services

- Mach III/TRIO Services is available to students who meet certain criteria, such as being a first-generation college student, etc.
- Halladay Student Services building, Room 300
- $\hfill\square$ Contact TRIO at 903-886-5833.

Technology requirement

Calculator:

- □ A TI-83 or TI-84 calculator (or equivalent) is RECOMMENDED for this course.
- You may not use the calculator on your cell phones.

Web browser and internet access Web browser and internet access is REQUIRED for homework and quizzes

Email account Email access is REQUIRED. Please utilize your A&M-Commerce email address, or make me aware of your alternate email address.

Electronic Device Policy

During regular class periods:

- Use of cell phones, computers and other electronic devices during class is strictly prohibited, unless
 - the instructor explicitly requires it.
 - $\circ\,$ you use your electronic devices only for class-related work during the class
- These devices should be either turned off or placed on silent.
- All electronic devices must be put away during class, ear buds must be removed and your full attention given to the instructor.
- Violation of this policy will result in you being marked absent from class that day, and this may result in a reduction of the final class grade as per the attendance policy.
- If you would like to record a lecture, either audio or visual, you MUST obtain prior permission from the instructor. Any recording without prior permission is a violation of copyright law.

During an Assessment (Exam, Quiz etc):

- When quizzes or exams are being given, no electronic devices are allowed at your desk or on your person, even if the device is turned off.
- If a cell phone and/or other electronic device is brought into the classroom it must be left with the instructor at the front of the room.
- Since it was your choice to bring the device into the classroom the instructor is not responsible for the security of the device.
- \square If an electronic device is found on your person during a class period when it is not allowed, the assessment will be collected immediately and a grade of zero (0) will be assigned to the assessment

Part 7 University Specific Procedures

Academic Honesty Policy:

- 1. Texas A&M University –Commerce has explicit rules and regulations governing academic dishonesty and academic misconduct. These policies are stated in details in the student's Guide Handbook. Each students is expected to read this document and abide by the contained polices. These university polices will be followed in class.
- 2. Students found guilty of an act of academic dishonesty in this course will be subject to receiving an "F" in this course, as well as disciplinary actions.
 - $_{\odot}~$ The instructor reserves the right to fail the student for the assignment or the course, as well as report the student to the Academic Dean and/or the Dean of Students.
 - The above deans have the ability to terminate a student's enrollment in the University. The instructor considers this an extremely serious matter.
 - Please make sure you are not in a situation that could be viewed negatively.

BASIC
TENETS OF
Common
Decency

- "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (Student's Guide Handbook, Policies and Procedures, Conduct.) This means that rude and/or disruptive behavior will not be tolerated.
- 2. All students are expected to exercise self-discipline and respect for the rights of others at all times.
 - (a) Behavioral disruptions that interfere with the business of the classroom or with an individual's ability to learn may be referred to the Dean of Students.
 - (b) Please be sure that cell phones and other electronic devices are off or silent.
 - (c) If you expect to have to get up, please select an inconspicuous position to minimize disruptions.
 - (d) Courtesy to others is important which means respecting the opinions of others, and in general, doing your part to make this a positive learning environment for all students.
 - (e) Food and beverages, while acceptable, should be consumed as quietly as possible, and you must clean up after yourself.

NONDISCRIMINATION

Statement

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Americans with Disabilities Act (ADA) Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

- office of Student Disability Resources and Services
- Texas A&M University-Commerce
- □ Gee Library- Room 132
- Dependence Phone (903) 886-5150 or (903) 886-5835
- □ Fax (903) 468-8148
- $\hfill \label{eq:studentDisabilityServices@tamuc.edu}$

Campus Concealed Carry Statement:

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1,

license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

and/or consult your event organizer.

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Early In- tervention for First Year Students Statement:	Early intervention for freshmen is designed to communicate the University's interest in their success and a willingness to participate fully to help students accomplish their academic objectives. Grades for students in freshmen level classes will be reported to the Registrar's Office at the end of the fifth week of class during the fall and spring semesters.
Supports for Students' Mental Health	The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel