

**George Mason University Korea<sup>1</sup>**  
**MATH 108 (Introduction to Calculus with Business Applications) - Fall 2019**

Instructor	Office	Tel	e-mail	Office Hours	On-line Office Hours
Dr. C. Kim	Mason Bldg 555	ext 5140	ckim50@ gmu.edu	9:00-10:15 on Tuesday and Thursday	20:30-22:00 on Tuesday

**Course Objectives:** (by the Catalog [http://catalog.gmu.edu/search\\_advanced.php?cur\\_cat\\_oid=29&search\\_database=Search&search\\_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=MATH108](http://catalog.gmu.edu/search_advanced.php?cur_cat_oid=29&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=MATH108))

1. To develop a facility with the concepts and techniques of differential and integral calculus.
2. The material covered will be : Functions, Graphs, Limits, Logarithms, Exponential Functions, Differentiation, Implicit Differentiation, Related Rates and Anti-derivatives.
3. To provide a strong foundation in calculus as preparation for subsequent courses in mathematics and business.
4. To improve the student's analytic thinking and problem-solving ability.

**Learning Objectives:** At the end of this course, the successful student will be able to

1. Students are able to interpret quantitative information and draw inferences from them.
2. Given a quantitative problem, students are able to formulate the problem quantitatively and use appropriate arithmetical, algebraic, and statistical methods to solve the problem
3. Apply appropriate mathematics principles to evaluate expressions, and find and test potential solutions.
4. Students are able to evaluate logical arguments using various calculus computings.

**Textbook:**

1. *Calculus for Business, Economics, Life Sciences, and Social Sciences*, 13<sup>th</sup> edition, Barnett, Zeigler and Byleen, Pearson.

**Teaching Mode:** 3 hours of lectures per week

**Evaluation:**

- 25% Test 1 (90 minutes) TBA
- 25% Test 2 (90 minutes) TBA
- 40% Final Exam (150 minutes) TBA, during exam period.
- 5% In class quizzes 2
- 5% Homework Completeness and correctness of the assigned homework.<sup>3</sup>

**Course Contents<sup>4</sup>**

Chapter 1: Functions and Graphs	(Sections 1.1 - 1.6)	(approx. 6 hours)
Chapter 2: Limits and the Derivative	(Sections 2.1 - 2.7)	(approx. 9 hours)
Chapter 3: Additional Derivative Topics	(Sections 3.1 - 3.7)	(approx. 9 hours)
Chapter 4: Graphing and Optimization	(Sections 4.1 - 4.6)	(approx. 9 hours)
Chapter 5: Integration	(Sections 5.1 - 5.5, except 5.3)	(approx. 9 hours)
Chapter 6: Additional Integration Topics	(Sections 6.1 - 6.2)	(approx. 6 hours)

<sup>1</sup>This course management policy follows University Policy <https://universitypolicy.gmu.edu/> .

<sup>2</sup>There will be mini quizzes given at the beginning of class. They are to ensure that you are reading your notes before class and not meant to be tricky.

<sup>3</sup>The assigned homework must be submitted in person in every lecture. Students will have the opportunity to present their solutions to various problems. Each student will be required to present in front of the class at least once as part of their credit.

<sup>4</sup>All chapter and section references pertain to Calculus, Early Transcendentals, (2nd ed.)

### Missed Tests or Final Exam

1. Students who are unable to be present for a midterm or for the exam due to illness, must contact the instructor by email or in person prior to the time of the evaluation or within the time period stated in academic policy.
2. Students who miss a test will be given the opportunity to write a make-up test provided they contact the instructor so they can be informed of the time and place for the make-up test. If the final exam is missed, an INC may be given in accordance with the policies set out in the Calendar. Failure to provide the appropriate documentation in time will lead to a grade of zero for the missed evaluation.

### Honor Code

1. It is mandatory that each students conduct is within the guidelines of the George Mason Honor Code.
2. Sharing information of any kind about testt, exam, quizzes will result at a minimum in a grade of zero for all parties involved.
3. Violations will also be reported to the university Homor committee where further consequences such as expulsion from the university may be incurred.
4. See <http://academicintegrity.gmu.edu/honorcode> .

### Evaluation Guideline

1. Both tests and the exam will be closed-book and written **without** calculators or any other aids.
2. There will be no supplemental exam.
3. Grades will be assigned as indicated in the George Mason Calendar.
4. Any tests written in pencil or erasable pen are ineligible for remarking.
5. There is no intrinsic reason for giving a non-zero mark for an incorrect solution. Part marks (if any) are awarded entirely at the examiner's discretion. If a test is submitted for re-marking, the whole test may be re-marked. The result may possibly be that the student receives a lower mark on any or all questions.
6. Students are responsible for completing all recommended homework in a timely fashion as the course progresses. Homework must be kept organized and legible as it may be recalled for marking as part of the student's evaluation.
7. Talking to another student, glancing over another student's paper or being caught with non-allowed materials during an evaluation may result in a zero mark for that evaluation and a record of academic misconduct lodged with the Registrar's office.
8. During an evaluation sharing of pencils, pens or erasers is NOT PERMITTED and PDAs, phones and pagers must be turned off and out of reach.
9. During any evaluation, coats, jackets and bags must be placed out of reach.

### Other Resources

1. The Math Tutoring Centre : The Academic Resource Center, GMUK is in the business of looking at your papers and problems to improve your academic achievement in the area of Writing, Mathematics, Accounting, Statistics, and Economics. You are invited to utilize the faculty and student tutor services at a variety of stages in your academic activities. They do help you become conscious of particular error patterns that emerge in your work. For more information, please contact Professor Eunmee Lee, director of Academic Resource Center (elee45@gmu.edu, office #521).