George Mason University Korea

MATH 113 (Analytic Geometry and Calculus I) - Fall 2021

Instructor | Office | Tel | e-mail | On-Line Office Hours
-----------|--------|-----|--------|---------------------
Dr. C. Kim | Mason Bldg | 555 | 5140 | (Common Office Hours)
           | ext |      | ckim50@gmu.edu | 14:00-14:50 on Thursday
           |     |      |              | 14:00-14:50 on Friday

Course Objectives: (by the Catalog http://catalog.gmu.edu/course-search/?subject=MATH)

1. To develop a facility with the concepts and techniques of differential and integral calculus.
2. The material covered will be: functions, limits, the derivative, maximum and minimum problems, the
   integral, and transcendental functions.
3. To provide a strong foundation in calculus as preparation for subsequent courses in mathematics and
   many other disciplines.
4. To improve the student’s analytic thinking, quantitative reasoning and problem-solving ability.

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

1. Develop analytical and numerical expressions using real problems.
2. Students are able to interpret quantitative information and draw inferences from them.
3. Given a quantitative problem, students are able to formulate the problem quantitatively and use
   appropriate arithmetical, algebraic, and combinatorial methods to solve the problem.
4. Apply appropriate mathematics principles to evaluate expressions, and find and test potential solutions.

Textbook:

Other Resources:
1. The Math Tutoring Centre

Teaching Mode: 4 + 1 hours of lectures per week (205 GMUK Bldg or Zoom on Blackboard)

Evaluation: (All of evaluations should be uploaded on Crowdmark.)

- 25% Test #1 (100 minutes) 3:00 - 4:40 pm, Sept. 17th, 2021. (in-class test, if possible)
- 25% Test #2 (100 minutes) 3:00 - 4:40 pm, Oct. 22nd, 2021. (in-class test, if possible)
- 25% Test #3 (100 minutes) TBA (in-class test, if possible)
- 10% Assignments
- 15% In-Class Pop Quiz, Attendance and Participation via Zoom

Course Contents

Chapter 1: Functions and Models (Sections 1.1 - 1.4, Appendix A) (approx. 8 hours)
Chapter 2: Limits (Sections 2.1 - 2.6, except 2.3) (approx. 8 hours)
Chapter 3: Derivatives and Differentiation (Sections 3.1 - 3.11) (approx. 10 hours)
Chapter 4: Applications of Differentiation (Sections 4.1 - 4.7, except 4.6 and 4.8) (approx. 8 hours)
Chapter 5 and section 4.9: Integrals (Sections 4.9, 5.1 - 5.5) (approx. 8 hours)
Chapter 6: Applications of Integration (Sections 6.1 - 6.4) (approx. 6 hours)

1This course management policy follows University Policy https://universitypolicy.gmu.edu/ .
2Revised on July 30th, 2021 because of On-Line Instruction: Revised Midterm Dates, Evaluation Weights, Additional
   On-Line Office Hours
3All 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 test, 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 Honor committee where further consequences such as expulsion from the university may be incurred.


Evaluation Guideline

1. All of the tests will be closed-book and written without calculators or any other aids.

2. There will be no supplemental test.

3. Grades will be assigned as indicated in the George Mason Academic 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).