George Mason University
Department of Mathematical Sciences

Analytic Geometry and Calculus I

Fall 2019

Course: MATH-113, section 007.

Total Credits: 4.

Purpose: A thorough introduction to real functions in one variable, limits, continuity, derivatives, applications of derivatives in optimization problems (calculating maximum and minimum) and basic integration. This course serves as a *Mason CORE Course* for quantitative reasoning skills.

Prerequisites: Go to: `http://catalog.gmu.edu/` , click on "Course" and write "math 113":

- Thorough understanding of high school algebra and trigonometry.
- C or better in MATH 104 or MATH 105 or a score of 07 in "Math Placement Trancedentals". Prerequisite enforced by registration system.

Times and Places: MW 1:30 – 3:20 pm Robinson Hall room B104 (R B104).

Period: From August 26. to December 18.

Dates to keep in mind:

September 3:	Last day to add classes.
September 9:	Last day to drop with no tuition liability.
September 17:	Last day to drop with no academic liability.

Professor:
Geir Agnarsson
Office: Exploratory Hall (EXPL), room 4412.
Phone number: (703) - 993 - 1477
email: `geir@math.gmu.edu`

Office-hours: MW 12:30 – 1:30 pm, or by appointment.

Required Text: Joel R. Hass, Christopher E. Heil, Maurice D. Weir: *Thomas Calculus: Early Transcendentals, Single Variable*, 14th Edition, Pearson, (2018).

NOTE! The book comes with *MyMathLab*, additional online material at additional cost. This online system is not required in this course.

Material: Selected preliminaries and most of Chapters: 1,2,3,4,5.

WebSite: All homework (HW) and short announcements for this class will be posted on the class-WebSite:

`http://math.gmu.edu/~geir/courses/113fall19/`.

Additional handouts will be posted as pdf-files. Please check this WebSite on a regular basis for class news and additional info might be posted there as well.

Homework: HW will be assigned every week on the class-WebSite on Wednesdays. They will not be graded, but will be discussed by your Teaching Assistant (TA), Marcia Pedro in the recitation (RCT) sessions the following week. Her email address is: `mpedro2@gmu.edu`. You will also have a Learning Assistant (LA), Shim, Jae (Roy) who will hold additional review sessions and office hours. His email is: `jshim7@masonlive.gmu.edu`. Their offices and office hours will be made available soon.

NOTE! It is IMPOSSIBLE to learn the material for this course without doing the HW.

Computer Assignments: There will be two computer assignments (CA) for you to hand in, using the MATHEMATICA program. They will be graded. For info on how to download MATHEMATICA onto your personal computers see `https://cos.gmu.edu/mathematica/`.

Quizzes: Each week your TA will have a 10 – 15 minute quiz (QZ) at the end of each recitation session. These will be graded.

Examinations (EX): There will be two midterm exams (MT1 and MT2) and a final exam (FL). Each of the midterms will cover the material up to that point in lecture, it will be 50 minutes long and take place in the class room. The final will be a two hour cumulative exam also in the class room.

Midterms:
First (MT1) – Wednesday, September 25., 2:30 – 3:20 pm, R B104.
Second (MT2) – Wednesday, October 30., 2:30 – 3:20 pm, R B104.

Final: Friday, Decembr 11., 1:30 – 3:30 pm, R B104.

Grading: Your final letter grade for this course will be based on

QZ 20% + CA 10% + EX 70%,

where the exam grade EX will be the largest number of the following:

1: MT1 20% + MT2 20% + FL 30%
2: MT1 20% + FL 50%
3: MT2 20% + FL 50%
4: FL 70%

Policy:

- Absence from an exam, without proper explanation, is an automatic zero on that exam.
- There will be no make-up quizzes nor midterm exams.
- In order to pass the class one MUST TAKE THE FINAL!

Collaboration: Needless to say, collaboration of any kind during a midterm exam or the final exam, is cheating. You are to abide by the GMU's Honor Code, see `https://oai.gmu.edu/mason-honor-code/`

During an exam you are not allowed to help anyone nor receive any help from anyone, except possibly from the exam proctor. You also cannot use any helping device, be it note books, text books, cheat-sheets or programmable calculators, unless otherwise clearly stated on the exam.

HOWEVER, healthy discussion about the homework problems among your classmates is allowed and encouraged! Be sure though, to write your own solutions.

Available Help: For help with some of the HW you can see me or your TA and/or LA during office hours, or drop in the Mathematics Tutoring Center, located in the Johnson Center room 344, For more info on help in general, go to the WebSite
`http://math.gmu.edu/help-with-math.php`.

Courtesy: Please use common sense and be courteous to your fellow classmate. During lectures be quiet and please turn off your cellular phones!

Geir Agnarsson
August 23, 2019