

Math 170 – Calculus I

Spring 2016

Instructor – Dr. Michael Fraboni

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Office hours: Mon/Fri 1-2pm, Wed 10-11am, Thu 11am-12pm

Course Materials – The text is *Calculus, Single Variable, Third Edition*, by Jon Rogawski and Colin Adams. In addition, all students are expected to have a graphing calculator or graphing app and bring it to class. We recommend either a TI-83/84 calculator, or the graphing app Desmos for your iPad. Please refrain from using your phone during class, unless asked to use as a resource.

Course Goals – In this course, you will be learning the mathematical language of change. Upon completion of this course, a successful student will meet the following objectives:

- Master differentiation and integration methods and the concepts behind them,
- Demonstrate facility with functions graphically, algebraically, numerically, and verbally,
- Apply the methods of calculus to solving real world problems, and
- Discuss and present solutions to mathematical problems in written and oral form.

Course Topics – We will briefly review Ch.1 and cover most sections of Ch.s 2-5. The topics to be covered are a review of Precalculus concepts, graphical and algebraic understanding of limits, the definition of a derivative, differentiation rules, techniques for graphing functions, applications of derivatives, the definition of an integral, graphical and algebraic understanding of integrals, and the Fundamental Theorem of Calculus.

Attendance – Class attendance is required. My definition of “Attendance” includes being prepared for class. Thus, bringing a textbook/notebook/pencil to class, reviewing notes before class, completing the homework assignments before the next class meeting, and participating in class discussions are all expected of each student.

If a student is absent, he/she must inform the instructor via email before or on the day of the absence. It is the student’s responsibility to keep up with all work covered in class and all assignments, even if absent from class.

Workload – For every hour in class you should expect to spend 2 hours doing work outside of class. Thus, you are expected to put in **7-8 study hours per week!** Math is not a spectator sport; you cannot learn math without lots of practice!

Exams – There will be **three** in class exams and a cumulative final exam. If you must miss an exam, it is your responsibility to contact me *in advance* to make arrangements.

Culture Points – You are required to complete **15 Culture Points** by the end of the semester. There are no specific assignments for this portion of the course. Rather, there are many opportunities for you to explore mathematics in our culture. Activities that foster cultural awareness include (but are not limited to): attending talks, discussing a mathematical topic with a fellow student or professor outside of class, giving a talk, reading articles, or solving problems. More details are explained in the Culture Points section at the end of the syllabus. You must submit assignments worth a total of at least 5 Culture Points by *midterm*.

Homework/Quizzes – Homework assignments will constitute an important part of this course and will be assigned daily. The problems assigned for homework represent a bare minimum, and you should work extra problems to ensure mastery of the material. It is vital that you do all the homework problems assigned; you should keep all your work in a binder or notebook for reference.

You may be assigned problems from the textbook as well as the online homework system WeBWorK. The text problems will not be graded but should be completed for practice. Your scores on the WeBWorK problems will make up your homework grade. The WeBWorK homework from a given lesson is due after the next class. This gives ample time to ask questions, correct any mistakes, and make any necessary revisions.

Go to the following link for details on how to log into and use WeBWorK:

http://is.gd/moco_ww

Group Work – Most class meetings will have some time devoted to group work. You will be assigned groups and roles within those groups. Your group will be given problems to work through together and will submit a single writeup before the beginning of the next class.

Evaluation, Grading, and Dates of Exams/Tests – Grades will be computed based on the weights below. Tentative dates for exams are listed below. It is within the purview of the instructor to apply qualitative judgment in determining grades for an assignment or for a course.

Culture Points (worth 5%)

Homework (worth 16%)

Exam 1 (worth 18%), **Wednesday, February 10**

Exam 2 (worth 18%), **Wednesday, March 23**

Exam 3 (worth 18%), **Wednesday, April 15**

Final Exam (worth 25%)

The final exam for our course is Tuesday May 3 at 3pm.

Course grades will be determined by the following scale:

93-100: A	73-77: C
90-93: A-	70-73: C-
87-90: B+	67-70: D+
83-87: B	63-67: D
80-83: B-	60-63: D-
77-80: C+	< 60: F

Disclaimers – This syllabus is subject to change through the semester. Any updates to the syllabus will be announced in class. The instructor reserves the right to apply qualitative judgment in determining final grades for the course.

Tutoring and Academic Support – Beginning the second week of class, the Mathematics and Computer Science Department offers tutoring Monday through Thursday 5:30-8:30pm in PPHAC 238. This is free drop-in tutoring and does not require an appointment.

If after using the walk-in tutoring above you still need assistance then you may request a one-on-one tutoring session. Greyhound Tutoring provides course-specific tutors to Moravian students, free of charge. If you would like to work with a Greyhound Tutor to boost your academic success, please request a tutor through <http://bit.ly/NeedTutorMC> (case-sensitive). Plan ahead! It takes 2-3 business days to connect you with a tutor.

Students who wish to request accommodations in this class for a disability should contact the Academic Support Center, located on the first floor of Monocacy Hall (extension 1401). Accommodations cannot be provided until authorization is received from the Academic Support Center.