

Math 1450 – Fall 2020

Calculus 1

My Contact Information

Name: Jay Pantone
Office: Cudahy 307
Email: jay.pantone@marquette.edu
(please email me directly, not through D2L or Wiley Plus)
Website: <http://jaypantone.com/courses/fall20math1450>
(includes course calendar)
Lectures: Asynchronous, posted online
Discussion Sections: In person, Tuesdays and Thursdays
Office Hours & Help Desk: TBD

Teaching Assistants

Jesse Adikorley	ishmaeljesse.adikorley@marquette.edu
Eric Redmon	eric.redmon@marquette.edu
Doogie Warner	daniel.warner@marquette.edu

Course Description

MATH 1450. Calculus 1. 4 semester hrs. Functions of one variable, limits, and continuity. The derivative and the definite integral with applications. Prerequisites: MATH 1101 or equiv. (3-4 years of college .prep mathematics including topics listed for MATH 1101)

Course Structure

Because of Covid-19, this course is being offered in a hybrid in-person / online format. In past semesters, this class consisted of lectures on Monday, Wednesday, and Friday with all students together, and smaller discussion sections on Tuesdays and Thursdays.

This semester, lectures will be online. Because of scheduling constraints, the lectures will be **asynchronous**, which means lecture videos will be posted on the course website for you to watch on your own time. It is **strongly recommended** that you stick to the course calendar. It is very easy to fall behind in an online course, but I've designed the course to try to help you stay on a schedule. There is a section below with some tips to succeed in this course.

Discussion sections on Tuesdays and Thursdays, conducted with a teaching assistant, will be in person. More information about discussion sections is below.

Communication Expectations

This is bound to be a strange semester in many ways, with lots of external factors that may interfere with your academic work. If something comes up that gets in the way of your classwork, the best thing you can do is to **get in touch with me as soon as possible** to figure out your options. Do not wait until weeks later to email me, because by then it may be too late to catch up.

On the other hand, I will be sending all important class information to you via email, and so I expect you to be checking your email regularly.

Calculus Help Desk

There is normally a *Calculus Help Desk* in Cudahy Hall that is staffed by TAs from different courses, open many hours per day for you to stop by for help. We are still determining the best way to operate the help desk in a hybrid in-person / virtual fashion. As soon as this has been decided, I'll pass along that information.

I will also hold weekly office hours via Microsoft Teams. I will announce the times in class when they have been decided. At these times, I will be available in a Microsoft Teams meeting that you should be able to join via our Teams page. **You do not need an appointment for office hours.** Just drop by any time! I'd really like to meet as many of you as possible. Please watch this instructional and informative video about office hours: <https://vimeo.com/270014784>.

Textbook

Calculus: Single & Multivariable, 7th Edition, by Hughes-Hallett, Gleason, McCallum, et al.
We will be using the Wiley Plus online homework system, so **you will need an access code**. This comes as part of the bundles posted on Book Marq.

Calculator

We **will not use a graphing calculator** in this course. Some homework problems will require the use of a simple scientific calculator that can perform basic arithmetic (i.e., exponents, roots, logarithms). You may use such a calculator (or an online equivalent like Google or WolframAlpha) for homework problems. You will not need a calculator for any exams, and thus use of a calculator will not be permitted.

Course Websites

Most important course information will be posted on our course website linked at the top of this syllabus. We will use D2L to keep track of grades. We will use Microsoft Teams for its chat rooms (which I encourage you to use to discuss with other students) and for office hours.

Discussion Sections

On Tuesdays and Thursdays, you will have discussion sections with your teaching assistant. These are opportunities to discuss the course materials and ask for help with homework questions. The entire Tuesday session and the first half of the Thursday session will be used for this. You will take a mini-exam for the second half of the Thursday section. The first mini-exam is on Thursday, September 8.

It is expected that you will attend all of the discussion sections and that you will come prepared with questions to ask.

How to Succeed in this Course

I have designed this course to help you stay on track with the material, despite its partially asynchronous nature. Here are my recommendations for doing well in this course.

- Stay on schedule! The Wiley Plus assignments and mini-exams are at regular intervals, and ensure you cannot fall too far behind. Even though we don't have in-person lectures, designate a time every Monday, Wednesday, and Friday to watch the videos I post, and pretend that's your lecture time. Stick to it! Try the Wiley Plus problems for an assignment the same day that you watch the videos, don't leave them all for the day it's due.
- When you watch the video, take notes of your own, and pause the video as necessary. Don't just rewrite everything in the video, but try to summarize and paraphrase. Doing this helps retention.
- Do the written textbook problems, even though they won't be collected. The point of homework in this course is to make sure you get enough practice on each topic, and doing the Wiley Plus assignments alone will definitely NOT be enough practice. Do each of the textbook problems I suggest (using the method in the "Written Homework" section below). You are encouraged to work with classmates on these problems. Whenever you get stuck, bring these problems to your next Discussion Section to go over with your TA. If you still feel a little shaky on a topic, pick more textbook questions to do.
- Make use of office hours and the Calculus Help Desk as much as possible. They are great resources to help with homework problems, get advice, or just chat about the course or mathematics in general.
- Find a good study group early on in the course who you can work with and talk to if you get stuck on a problem. If you don't know anyone else in the course, introduce yourself in the Microsoft Teams chat room and say you're looking for a study group.
- If something comes up that gets in the way of your academic work, reach out to me as early as possible so I can help!

UCCS Objectives

This course fulfills the 3-credit mathematical reasoning requirement of the University Core of Common Studies (UCCS). It is designed to help students achieve the UCCS generalized learning outcomes for the mathematical reasoning knowledge area. Specifically, at the completion of core studies students should be able to

1. Evaluate the effectiveness of the mathematical sciences in describing the world.
2. Analyze quantitative information symbolically, graphically, numerically, and verbally for the purpose of solving problems or drawing conclusions.
3. Construct logical arguments in support of mathematical assertions.

Marquette Core of Common Studies – Discovery Tier “Expanding our Horizon”

A defining characteristic of human beings is our desire to ask questions and to explore the unknown. Calculus is both a language and a set of concepts created to probe the boundaries of the universe and investigate unsolved mysteries in numerous fields, such as biology, engineering, physics, economics, social sciences, etc. Calculus provides us with concepts and tools to express our innate desire to know and facilitates our pursuit of new technologies to better respond to our worlds immediate challenges. It aids us in providing insights into the unknown and in the creation sustainable solutions for the future. This course, and its supporting textbook and online homework system, will strive to challenge you to think beyond the current textbook section. You should expect that all problem sets to contain a problem, or a collection of problems, that will ask you to think far beyond a straightforward calculation.

Assessment

Your grades in this course will be based on three components, weighted as follows:

- Online Homework — 35%
- Mini-Exams — 50%
- Final Exam — 15%

There will also be written homework from the textbook which will not be collected or graded, but which is very important for your success in the course!

Online Homework with Wiley Plus

Homework will be assigned through Wiley Plus. You will need an access code that will come with your textbook bundle. Your answers will be automatically graded by the system. This is usually pretty reliable, but it may take a little practice to learn how to properly format your answers.

There will be 11 Wiley Plus assignments, due on Wednesdays (see the course calendar on the course website), starting Wednesday, September 9. Each assignment will be worth 18 points, plus there will be a 2 point practice assignment also due on Wednesday, September 9, for a total of 200 possible points. Your final Wiley Plus score will be calculated out of a total of 175 points, which means there are 25 points of “leeway” to account for technical issues, incorrectly entering answers, late assignments, etc. **Therefore, late assignments will not be graded and there will be no makeup Wiley Plus assignments.**

For example, if you earn 180 points total, your Wiley Plus percentage will be 100%. If you earn 150 points total, your Wiley Plus percentage will be $150/175 \approx 85.7\%$.

Some Wiley Plus tips:

- If Wiley Plus doesn't load, try a different browser or try clearing your browser cache.
- Be careful to pay attention to the notation you're using and the notation Wiley Plus is using. Some common errors include: using Π instead of π , using x when the variable is t , and misplacing parentheses.
- Unless the problem states otherwise, use exact answers (logs, fractions, etc.) instead of numerical approximations.

Mini-Exams

Since we won't have the opportunity to meet in person for lectures, and since we have to be ready for the possibility that courses (including our discussion sections) will be moved fully online, we won't have the typical handful of midterms.

In their place, we will have 11 "mini-exams" in the Thursday discussion sections. These mini-exams will be designed to take about 25 minutes, and will be shorter than typical exams, but you should expect the difficulty level to be about the same as a normal exam (although covering much less material).

Each mini-exam will be worth 25 points, and the lowest score will be dropped, for a total of 250 points.

Final Exam

The final exam will be cumulative, and worth 75 points. The registrar has not yet assigned us a time or date for the final exam.

Written Homework

For each section, I will assign a handful of textbook problems for you to use to practice the material until you've mastered it. I recommend the following practice regimen. For each problem, try to solve it without the book or your notes. If you can't figure it out, look at your notes or the book or the solution (if it's in the back of the book). Here's the key: if you couldn't solve it, make a note of the problem so you can come back to it a day later after you've forgotten the answer. Then repeat the process until you can do the problems without assistance. You should keep your solved problems in a notebook to help you study for the mini-exams and the final exam.

Grade Computation

The total number of points in the course is 500: 175 from Wiley Plus, 250 from mini-exams, and 75 from the final exam. The correspondence between points and final grades is in the table below:

points	percentage	grade
465 - 500	93% - 100%	A
450 - 464.99	90% - 92.99%	A-
435 - 449.99	87% - 89.99%	B+
415 - 434.99	83% - 86.99%	B
400 - 414.99	80% - 82.99%	B-
385 - 399.99	77% - 79.99%	C+
365 - 384.99	73% - 76.99%	C
350 - 364.99	70% - 72.99%	C-
335 - 349.99	67% - 69.99%	D+
300 - 334.99	60% - 66.99%	D
0 - 299.99	0% - 59.99%	F

Other Classroom Policies

Grading Disputes

If you believe that there has been an error in scoring an assignment, you must bring it to the attention of your TA within one week of the graded paper being returned. Your TA will carefully reread, and if necessary rescore, the assignment.

Classroom Conduct

The classroom is an interactive learning environment in which everyone should feel valued and comfortable. I strongly encourage you to ask questions and give answers throughout the term, even if (particularly if!) you're not sure that your answers are correct. This is an important part of the learning process.

Students in past courses have often told me that they might peek at their phone, or get otherwise distracted, when they see something in the lecture that they already know. Then, they look up a few minutes later and realize that they're already lost and because math lectures build on themselves, they tend to stay lost for the rest of the class period. To prevent this, and in order to not distract your classmates, I ask that you keep your phones away.

Returned Papers

You must retain all returned papers in case of any discrepancy with the recorded grades on D2L. I cannot correct any mistakes in grading or recording of scores without the original document. All concerns regarding grades on assignments must be brought to me within one week of the return of the paper.

Homework Collaboration Policy

It can be very helpful to study and work with a group. This type of cooperative learning is encouraged; however, be sure that you have a thorough understanding of the concepts as well as the mathematical steps used to solve an exercise. You must be able to work through the exercises on your own. Each

student must work on Wiley Plus individually, but students are encouraged to work together on the written textbook problems.

Special Statement on COVID-19

Marquette University recognizes that this is a difficult time which may be filled with uncertainty as we move forward with the academic year. Your safety, health, and well-being, as well as that of our faculty and staff are our primary concern and we want to be able to support you in any way that we can. To live our Cura Personalis or care for the whole person, we ask that you adjust your behavior to best keep yourself and others safe. We have expectations that you act responsibly in order to mitigate risk to others. As your faculty, I too am committing to these behaviors that I will ask you to follow.

The University understands that at this time you may be facing some obstacles that would make it difficult to meet your academic goals. Please use the Student Resources page on the Marquette COVID-19 Response webpage for information and resources on basic needs such as housing, food, financial aid, and medical and mental health. The webpage also offers information on official University communications, access to technology, and student services. Your professors and advisors are also here for you. Visit the Marquette COVID-19 Response Page regularly as information may change as the semester rolls out.

Expected Behavior

Wearing Masks in Classrooms is Mandated

Marquette requires all students, faculty, and staff to wear face masks or cloth face coverings in classrooms, laboratories and other public spaces where in-person instruction occurs. We require the wearing of masks covering the nose and mouth in all physical classrooms to help mitigate the transmission of COVID-19. Marquette as a community views the adoption of mask wearing as a sign of our being men and women for others. It is a mark of respect, compassion for your classmates, faculty, staff and for the greater Milwaukee community. Students who cannot wear a face covering due to a medical condition or disability, or who are unable to remove a mask without assistance, should seek an accommodation through the Office of Disability Services. If you do not adhere to this practice you will be asked to leave the room.

Facemasks are not a Substitute for Social Distancing

You should maintain appropriate social distancing guidelines where possible while in the classroom, laboratory, or other instructional spaces and in public areas. You should avoid congregating around instructional space entrances before or after class sessions. Expectations for seating arrangements will be communicated at the beginning of the semester. Some instructional spaces may have designated entrance and exit doors for you to use. You should exit the instructional space immediately after the end of instruction to help ensure social distancing and allow for the persons attending the next scheduled class session to enter.

Accommodations and Special Needs

If you have a disability and require accommodations, please contact your instructor during the first week of class so that your learning needs may be appropriately met. You will need to provide documentation of your disability to the Office of Disability Services. If you are unsure of what you need to qualify for services, visit the Office of Disability Services' website at <http://www.marquette.edu/disability-services> or contact their office by phone at (414) 288-1645.

Excused Absences

Students with absences due to legal obligations, religious observances, or participation in Division 1 athletics and other university sanctioned events will be given an opportunity to make up examinations or other graded assignments, if a request is made to the instructor prior to the absence. After all absences, excused or unexcused, you are responsible for contacting your classmates to obtain lecture note and any other missed materials.