

Clemson University
School of Mathematical & Statistical Sciences

MATH 1080-041, Calculus of One Variable II
M–Th 8:00–9:15am (online), Summer 2021 (long session)
Syllabus

Instructor: Dr. Matthew Macauley, Martin Hall O-325, macaule@clemson.edu, 656-1838 (no voicemail)

Course Description: MATH 1080 continues the theory and practice of the calculus of one variable to model phenomena in engineering and science. It covers integration, applications of definite integrals, techniques of integration, infinite sequences and series, and calculus with parametric equations and polar coordinates.

Prerequisite: MATH 1060 (Calculus I).

Communication Strategy: I generally prefer to communicate via emails rather than Canvas messages.

All of my email addresses (e.g., macaule@clemson.edu) go to the same gmail inbox, which I check multiple times on weekdays. I often don't check email on Saturdays. Though I have the gmail app on my phone, I do not get push notifications for emails.

If you send me an email and do not get a reply by the time you go to bed, please re-send it, as that is my mistake. Just click "Reply" and "Send"; no need to explain.

Happy Hour: Every Mon–Thurs evening at 7pm, you are invited to join me and your classmates on Zoom for an Adult Beverage¹, company, and office hours. I'll stick around to answer questions as long as there are some. However, *I will only show up if at least one person RVSPs, by sending me an email before 6:30pm saying they will attend.* If no one is there by 7:05pm, I will log off.

Useful websites:

Canvas: <https://www.clemson.edu/canvas/>

MyLab Math: <https://portal.mypearson.com/> (online homework and daily in-class worksheets, our access code is **macauley01259**)

Texts: *Calculus: Early Transcendentals* by Briggs, Cochran, Gillett, Schulz, 3rd Edition, Pearson, 2019.

Assigned work: There will be two types of assigned work in our class, and both are accessible from Pearson MyLab Math: (i) online homework, and (ii) daily in-classes *Learning Catalytics* worksheets. Everything is due at 11:59pm on their due dates. The due dates of the MyLab Math homework are listed on the course calendar. The assigned dates for the worksheets are listed, and each one will be due on the calendar day of the subsequent class. This is because I will be able to see aggregated progress, and I will give feedback in class the morning of the actual due date.

Schedule: This will be “partially flipped” class. The day before most of our classes, I will email you a short YouTube lecture that I have recorded, to watch in preparation. In class, I will summarize it and go over the main themes, and also cover some new topics. Finally, we will spend some time every day working on a daily worksheet, and going over the previous day's worksheet. The course calendar will be posted on Canvas.

¹For me, this means drinks like **LaCroix** or **Kombucha**, which are *very unpopular* among kids.

Required technology:

A computer and reliable internet connection.

A free Zoom account, and a video camera that allows you to be recorded over Zoom.

A smartphone scanning app. There are many free apps, such as CamScanner or Adobe Scan.

Zoom Info: Please turn your camera on for all Zoom meetings.

There will be one common Zoom URL for all classes, and another for all Happy Hours. These URLs will be emailed to the class list. I am also available to meet by appointment, if desired. In that case, email me and include block(s) of time in which you are available. Please let me know in advance if you want any meeting to be private, like if you want to discuss your grade. In that case, I will use a different Zoom meeting.

If your internet goes out during a Zoom meeting, Zoom should automatically reconnect when it comes back. This used to happen to me several times a day, for a few minutes at a time, because AT&T is terrible. It might happen during class. In this case, please stick around, and consider this to be an unexpected 1–2 minute break from class.

Class begins at 8:00am, and I plan on starting promptly. If I am not there by 8:05, check your email. If you have not heard anything from me by 8:10, you may assume that class has been canceled.

Calculators/Other Technology: A calculator is recommended for homework and in-class worksheets, but will not be permitted for exams.

Homework: Will be assigned over Pearson MyLab Math. The due dates are shown on the course calendar, and are due that day at 11:59pm. Extensions will not be granted, but I will drop everybody's lowest three scores.

Worksheets: Will be assigned using *Learning Catalytics* in Pearson MyLab Math. The dates assigned are shown on the course calendar, and are due the day of our following class at 11:59pm. Extensions will not be granted, and I will not drop any low scores. Most worksheets will be graded on a "25% completion, 75% correctness" scale. They are multiple choice, and at any time, I can see what percentage of students answered each part, which helps me see in real-time what problems students are having problems with, and common pitfalls. Your scores are not recorded until the worksheets are "turned off" at 11:59pm. In other words, it doesn't matter if you answer incorrectly initially, as long as you eventually change your answer to the correct answer.

Exams: There will be three 75-minute midterm exams during the semester and a cumulative 2.5-hour final exam. They will be accessible on Canvas, and I will proctor all exams over Zoom. You will need to join the Zoom session on your phone, and Respondus Lockdown Monitor on your computer. You must provide consent to having the meeting recorded.

Exam checklist (things to bring):

- Plenty of blank scratch paper and pens or pencils.
- Smartphone.
- Smartphone charger.

Exam rules:

- You must take the exam using Zoom on your phone, with your camera on for the duration of the exam.
- Before beginning the exam, you must do a “room scan” with your camera, and also verify that all of the paper you brought is indeed blank.
- The camera must be far enough away so I can see your hands and paper at all times. That is, I must be able to verify that you are not using another device or computer.
- When you are finished, send me a private Zoom Chat to let me know. When you click “submit”, you will have access to the class Zoom link. Log onto Zoom from your computer, and then you can log off from your phone.
- Scan and email your exam to me while still on camera. It must be scanned in one multi-page pdf document, and *not* multiple individual one-page documents.
- Before *and* after submitting, double-check to make sure that the scanned file is (i) fully legible, (ii) complete (iii) the correct file, and (iv) correctly oriented (not upside down or rotated).

It is strongly recommended that you practice with your smartphone scanning app *before* the exam.

Grading: Your final grade will be computed as follows:

MyLab Math Homework	14%
Learning Catalytics worksheets	14%
Midterm 1	18%
Midterm 2	18%
Midterm 3	18%
Final Exam	36%

I will drop either your lowest midterm grade, OR half of the weight of the final exam; whichever is lowest. Also, if you get an **A** or **B** on the final exam then you will get at least that grade in the course, *assuming you have a passing grade on both the homework and worksheets.*

I do *not* necessarily grade using arbitrary round number cut-offs, as sometimes I like to err on the difficult side for exams. That said, 90+ will always be an A, 80+ will always be at least a B, 70+ will always be at least a C, and 60+ will always be at least a D.

The automatically calculated numeric grade that you see in Canvas is NOT an accurate indicator of your grade. It will not take MyLab Math HW or worksheets into account. At any point in time during the class, I would be happy to give you a ballpark estimate of how you are doing.

Key Dates

May 11 (Tue)	Classes begin
May 12 (Wed)	Last day to register or add a class
May 18 (Tue)	Last day to drop a class or withdraw from the University w/o a W grade
May 31 (Mon)	No class (Memorial Day)
Jun 14 (Mon)	No class (Long summer break)
Jul 5 (Mon)	No class (Independence Day)
Jul 6 (Tue)	Last day to drop a class or withdraw from the University w/o final grades
Jul 28 (Wed)	Last day of class
Aug 2 (Mon)	Final Exam, 8:00–10:30am

Student Learning Outcomes: Upon completing this course, students will be able to do the following:

1. Apply the definition of the definite integral to construct integrals representing geometric and physical quantities (including area, volume, work, force, arc length, and surface area).
2. Apply integration techniques (integration by parts, trigonometric integrals, trigonometric substitution, partial fractions, and improper integrals) to evaluate indefinite and definite integrals, including improper integrals.
3. Determine the convergence behavior of infinite sequences and series and justify the conclusion.
4. Determine a power series representation for a function and use the power series representation to solve problems involving the function.
5. Graph equations given in parametric and polar form, convert between rectangular, parametric, and polar form, and solve problems using derivatives and integrals in parametric and polar form.
6. Communicate the calculus methods and techniques used in solving a problem.

“No exceptions”: In any class syllabus, no matter how they are worded, policies and phrases like “no exceptions”, “no make-ups”, etc. are *never* actually what they sound, and this is especially true this year. Things happen, from natural disasters (hurricanes, tornados), to human disasters (9/11, school shootings), to personal and family tragedies, to health emergencies (COVID, auto accidents, hospitalizations). This does not mean that any exception or extension will be granted, but I will do my best to be reasonable, fair, and accommodating.

Make-Up Policy: I will drop your lowest midterm, which means that if you miss a midterm, then your final exam grade will replace it. The homework deadlines will not be extended for individual students, and assigned homework must be turned in by the deadline. **PLAN AHEAD:** If you submit assignments minutes before the deadline, you take the risk of bad luck, e.g., a power outage, computer freeze or crash, personal emergency, zombie attack, etc., that could make you miss the deadline.

By default, any exam that was scheduled at the time of a class cancellation due to power outage / inclement weather will be given at the next class meeting. Any extension or postponement of assignments or exams must be granted by me via email or Canvas within 24 hours of the weather-related cancellation.

Special Accommodations: Clemson University values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to a class should let the instructor know, and make an appointment to meet with a staff member in Student Accessibility Services as soon as possible. You can make an appointment by calling 864-656-6848 or by emailing studentaccess@lists.clemson.edu. Students who receive Academic Access Letters are strongly encouraged to request, obtain and present these to their instructors as early in the semester as possible so that accommodations can be made in a timely manner. It is the student’s responsibility to follow this process each semester. You can access further information here: <http://www.clemson.edu/campus-life/campus-services/sds/>.

Mental health: Your mental health is important to me, and I am always available to talk. Please don’t hesitate to reach out. We’re in this together, and all of us are struggling in some regards, myself included.

Title IX Policy: Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veterans status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972.

The University is committed to combatting sexual discrimination including sexual harassment and sexual violence. As a result, you should know that University faculty and staff members who work directly with students are required to report any instances of sexual harassment and sexual violence, to the University's Title IX Coordinator. What this means is that as your professor, I am required to report any incidents of sexual harassment, sexual violence or misconduct, stalking, domestic and/or relationship violence that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:

Confidential Resources and facilitators of sexual awareness programs such as "Take Back the Night and Aspire to be Well" when acting in those capacities, are not required to report incidents of sexual discrimination.

Another important exception to the reporting requirement exists for academic work. Disclosures about sexual harassment, sexual violence, stalking, domestic and/or relationship violence that are shared as part of an academic project, a research project, classroom discussion, or course assignment, are not required to be disclosed to the University's Title IX Coordinator.

This policy is at <http://www.clemson.edu/campus-life/campus-services/access/title-ix/>. Alesia Smith is the Executive Director for Equity Compliance and the Title IX Coordinator. Her office is at 223 Holtzendorff Hall, phone number is 864.656.3181, and email address is alesias@clemson.edu.

Academic Integrity: As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a 'high seminary of learning'. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

Copyright Statement: Some of the materials in this course are possibly copyrighted. They are intended for use only by students registered and enrolled in this course and only for instructional activities associated with and for the duration of the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Teach Act. Refer to the Use of Copyrighted Materials and "Fair Use Guidelines" policy on the Clemson University website for additional information: <http://clemson.libguides.com/copyright>.