Instructor Policy - Section 07 (MWF)

Math 129 - Calculus II - Spring 2023

MWF 10—10:50am, Communication Rm 113

Description of Course

Continuation of MATH 122B or MATH 125. Techniques of symbolic and numerical integration, applications of the definite integral to geometry, physics, economics, and probability; differential equations from a numerical, graphical, and algebraic point of view; modeling using differential equations, approximations by Taylor series.

Course Prerequisites or Co-requisites

MATH 122B or 125 with C or higher.

Instructor and Contact Information

Daniel Lewis, Zoom phone caller ID 315903, dlewis3@math.arizona.edu

Office hours: Monday 11am—12pm, Wednesday 5—6pm, Friday 3—4pm, or by appointment.

Course Webpage: https://math129.math.arizona.edu

D2L sites: There are two D2L sites for this class - one for our section, and one for all Math 129 students (the common site).

- *Our Section's D2L Site:* Will serve as the central hub for communication and materials for our section.
    - Announcements will be made on our section's D2L.
    - The eText and WebAssign will be delivered digitally via our section's D2L through the Inclusive Access program.
    - The course policy and the course calendar are posted in our section's D2L.
    - Grades will be posted in our section's D2L. (Please verify the accuracy of all homework, quiz, and exam scores in a timely fashion.)
- *Common D2L Site:* Will serve as a distribution center for materials common to all sections of Math 129. Namely, it will contain:
    - Recordings of online lectures and pdf notes for these lectures. You are welcome to use the recorded lectures as a supplemental resource.
    - Other (outside) videos recommended by students. (Note that these recordings have not been vetted by any Math 129 instructor - use at your own risk.)
    - Final exam information.

Course Communications

It is the student's responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes, by email, or through D2L.

The best way to contact me directly is via email (dlewis3@math.arizona.edu). You can expect a response within 24 hours, often much sooner. However, do not expect a swift response outside of usual work hours (9–5 M—F).
Course-wide announcements will be distributed using D2L.

Course Format and Teaching Methods

This class is scheduled to be taught in the in-person modality.

Bearing in mind the room layout and best practice, class activities will tend towards manual instruction, allowing time for individual work. Group work will be incorporated where possible. Any handouts will also be posted on D2L.

Class Meetings

Meeting Times: This class will meet MWF from 10—10:50am in Communication Rm 113.

Our meetings will give us the opportunity to develop our understanding of the content material and work to meet the course goals and objectives using a variety of instructional techniques. On any given day, this may include lecture, discussion, seat-work, and group work.

Class attendance:

- Students are expected to come to class and to be active participants. You will be learning mathematics that is computationally and conceptually difficult. When learning such material, passively watching videos is not nearly as effective as actively participating in class.
- If you feel sick, or if you need to isolate based on University protocols, stay home. Except for seeking medical care, avoid contact with others and do not travel.
- Notify your instructor if you will be missing a course meeting or an assignment deadline
- Non-attendance for any reason does **not** guarantee an automatic extension of due date or rescheduling of examinations. Please communicate and coordinate any request directly with your instructor
- If you must miss the equivalent of more than one week of class, you should contact the Dean of Students Office DOS-deanofstudents@email.arizona.edu to share documentation about the challenges you are facing.
- Voluntary, free, and convenient COVID-19 testing is available for students on Main Campus.
- If you test positive for COVID-19 and you are participating in on-campus activities, you must report your results to Campus Health. To learn more about the process for reporting a positive test, visit the Case Notification Protocol.
- The COVID-19 vaccine and booster is available for all students at Campus Health.
- Visit the UArizona COVID-19 page for regular updates.

Staying current: You are required to complete WebAssign assignments and textbook problems on your own time to gain problem-solving and critical thinking skills through the application of calculus concepts to various situations. See the homework policies below for further details.

Class Recordings: In-person classes will not be recorded, but class notes will be distributed via D2L. In the event we have to move a class to Zoom, instructions on class recordings will be provided.

For lecture recordings, which are used at the discretion of the instructor, students must access content in D2L only. Students may not modify content or re-use content for any purpose other than personal educational reasons. All recordings are subject to government and university regulations. Therefore, students accessing unauthorized recordings or using them in a manner inconsistent with UArizona values and educational policies (Code of Academic Integrity and the Student Code of Conduct) are also subject to civil action.

Course Materials

The course materials include the textbook (*Calculus Single Variable*; Sixth Edition by Hughes-Hallett et al.; published by Wiley) and access to the online homework system (WebAssign).

Course materials are being delivered digitally via our section's D2L through the Inclusive Access program. Please access the material through D2L the first day of classes to make sure there are no issues in the delivery. If you are having a problem or question then it can be addressed quickly.

You automatically have access to the course materials FREE through January 24, 2023. You

must take action (even if you have not accessed the materials) to opt-out if you do not wish to pay for the materials, and choose to source the content independently. **The deadline to opt-out is 9:00pm MST, January 24, 2023. If you do not opt-out and choose to retain your access, the cost of the digital course materials will appear on your February Bursars account.** Please refer to the Inclusive Access FAQs at https://shop.arizona.edu/textbooks/Inclusive.asp for additional information.

All worksheets provided in class will also be made available in D2L.

Required Materials

A graphing calculator is a tool that will be used in this course. We recommend any model in the TI-83 or TI-84 series. Models that can perform symbolic calculations (also known as CAS) are NOT allowed on exams and quizzes. CAS models include (but are not limited to) the TI-89, TI NSpire CAS and HP 50g. Students are not allowed to share calculators during exams and quizzes.

Equipment and software requirements: For this class you will need daily access to a device with reliable internet signal that can:

- Access D2L
- Join Zoom meetings (for office hours and department tutoring)
- Watch videos posted on D2L
- Access Gradescope, WebAssign, and the eText
- Scan and upload written work
- View pdf documents

Note: Enrolled students can borrow technology from the UA Library on a first come, first served basis. See https://new.library.arizona.edu/tech/borrow for details.

Course Goals and Objectives

Math 129 covers the fundamentals of the integral calculus, including:

- developing the techniques of analytical and numerical integration, including improper integrals;
- applying the definite integral to problems arising in geometry and in physics;
- developing the concept of infinite series and the ability to calculate and use Taylor series;
- analyzing first order differential equations from a graphical and algebraic point of view and modeling physical and biological situations by differential equations;
- promoting problem-solving and critical thinking skills through the application of calculus concepts to various situations.

Learning Outcomes

Upon completion of the course, the student will:

- identify appropriate integration technique(s) and successfully execute them;
- for a given geometric, or physical quantity, set up an integral that measures the quantity, and use integration techniques to calculate it;
- determine if an infinite series or improper integral converges to a finite value; calculate, manipulate, and determine the radius of convergence of Taylor series;
- solve first order differential equations analytically and graphically and determine an appropriate differential equation to model various physical and biological situations.

Classroom Behavior Policy

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Please see https://covid19.arizona.edu/ for rules and regulations put in place due to the COVID-19 virus (as well as the latest news and updates on the COVID-19 response on campus).

Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

Netiquette

Netiquette is an abbreviation for "internet etiquette" – more simply put, guidelines for communicating online to ensure meaningful and polite exchanges. The common standards listed below work well for online classrooms, online office hours, discussion boards, and beyond in professional online communication:

- Behavior. Maintain the same standard of behavior and ethics that you would follow in a face-to-face context.
- Tone. Treat others with respect. Be mindful of your tone and how that is conveyed in your writing style. DO NOT USE ALL CAPS. It is considered shouting and not appropriate in a classroom. Avoid sarcasm and irony as it is easily misinterpreted in an online environment.
- Clarity and Content. Be succinct. Write, reread, and then post. Carefully consider what you have written. Does it make sense? Is it free from errors? Does it add to the conversation? Is it unnecessarily confrontational or offensive?
- Contribute. Online learning is not passive. It is expected that you will share your knowledge and insight. Be an active contributor to the learning community.
- Be forgiving. If someone makes a mistake or does something inappropriate, address it privately and politely. You can always let the instructor know and ask them to address it as well.

Accessibility and Accommodations

At the University of Arizona, we strive to make learning experiences as accessible as possible. If you anticipate or experience barriers based on disability or pregnancy, please contact the Disability Resource Center (520-621-3268, https://drc.arizona.edu/) to establish reasonable accommodations.

In Class Examinations (300 Points)

Three in-class exams are tentatively scheduled for Monday, February 13th; Wednesday, March 22nd; and Friday, April 28th. Each exam will be worth 100 points. All exams will be delivered and proctored in person. The exams are closed book and closed notes. All electronic devices must be turned off during all exams. If you miss an exam for any reason, contact your instructor as soon as possible. In general, there will be no make-up exams without prior arrangement with the instructor. However, a make-up exam may be given in exceptional circumstances. Approval in these cases is at the sole discretion of the instructor and/or the dean of students, and decisions will be made on a case-by-case basis. This may require providing a detailed account of the situation. According to university policy, no exams will be scheduled on the week of May 1st.

For students who have attended all three in-class exams, the percentage score on the final exam will be used to replace their lowest in-class exam score (if it improves their grade), unless the lowest in-class exam score was due to an academic integrity violation. For students who miss an exam for which the instructor has determined that a make-up opportunity is warranted, a make-up exam time outside of the normal class time will be offered by your instructor. If the student cannot attend this make up time, then the percentage score on the final exam will be used as a make-up exam score. For students who miss more than one in-class exam, it is imperative to discuss the situation with your instructor.

Final Examination (150 Points)

The final exam is a comprehensive common exam that is closed book and closed notes. It is scheduled for Monday, May 8th from 8:00 – 10:00 am (see the University's Final Exam Schedule at http://www.registrar.arizona.edu/schedules/finals.htm). It will be delivered and proctored in

person. You may use an appropriate graphing calculator (see the paragraph after the Required Material heading), but all other electronic devices must be turned off. Additional information and a study guide can be found at the Math 129 Common D2L site and the Math 129 website https://math129.math.arizona.edu.

The University's Exam regulations will be strictly followed https://www.registrar.arizona.edu/courses/final-examination-regulations-and-information.

WebAssign Homework (100 Points)

A computer grading program called WebAssign will be used for problems assigned from the text. The due dates for all assignments are posted in WebAssign - it is your responsibility to know when the assignments are due. Automatic two-day extensions will be available in WebAssign for a 10% penalty. Other extensions should be discussed with the instructor via email. A final WebAssign homework score based on 100 possible points will be computed: your lowest 3 scores will not be included in the calculation, to allow for up to a week's work missed through illness.

Other Assignments and Quizzes (100 Points)

Written Work: (**60** points) Hand written homework showing all work with proper notation will be submitted. These problems will come from the text and/or from a set of problems created by your instructor. Some assignments may also require a video upload of you or your group presenting a solution. A final written work score based on 60 possible points will be computed. Your lowest score will not be included in the calculation, to allow for up to a week's work missed through illness.

Quizzes: (**40** points) Short quizzes will be given regularly. The quizzes are closed-book and closed-notes, and will be delivered on paper in class. They will usually consist of 1 or 2 problems based on the WebAssign assignments. The exact dates of the quizzes will be posted in our section's D2L site. Grading disputes regarding a quiz must be addressed within one week after the quiz has been returned. A final quiz score based on 40 possible points will be computed.

Your lowest 2 scores will not be included in the calculation, to allow for up to a week's work missed through illness.

Grading Scale and Policies

Your final course grade will be determined by a percentage of the 650 total possible points in the course. Grades will be no lower than the following:

A: 100-90% B: 89-80% C: 79-70% D: 69-60% E: 59-0%

No extra credit or bonus points are offered in this course.

Note: A grade of C or better in Math 129 is a necessary prerequisite for Math 223 (Vector Calculus) and Math 254 (Differential Equations). Students who receive a D in Math 129 will receive credit for the course towards graduation requirements, and will be able to use their course for the general education math requirement, but will not be automatically qualified to register for Math 223 or 254.

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete and http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal respectively.

You may drop the class without a W through **January 24** using UAccess. The class will appear on your UAccess record, but will not appear on your transcript. You may withdraw with a W through **March 28** using UAccess. The University allows withdrawals through **April 11**, but only with the Dean's approval. Late withdraws are dealt with on a case by case basis, and requests for late withdraw without a valid reason may or may not be granted.

Administrative Drops: Administrative drop is an instructor's option, not an obligation. Instructors are not required to drop students who fail to attend class. Since students may add courses beyond the official start date, instructors should be attentive to student enrollment dates when assessing adequate participation for the purposes of administrative drop. Students may be

administratively dropped if they miss the first two class meetings.

Dispute of Grade Policy: In general, any questions regarding the grading of any assignment, quiz, or exam need to be cleared up within one week after the graded item has been returned.

Scheduled Topics/Activities

Week	Topics	WebAssign	HW/ Quizzes/ Exams
1: Jan 11 - Jan 15	Integration by substitution and parts		
2: Jan 16 - Jan 22	Tables of integrals	Sec 7.1 & 7.2	Quiz #1 & HW #1
3: Jan 23 - Jan 29	Partial fractions & Trig substitution,	Sec 7.3	Quiz #2 & HW #2
4: Jan 30 - Feb 5	Numerical methods of integration, Improper integrals	Sec 7.4 & 7.5	Quiz #3 & HW #3
5: Feb 6 - Feb 12	Comparison of improper integrals	Sec 7.6 & 7.7	Quiz #4 & HW #4
6: Feb 13 - Feb 19	Areas & volumes		Exam #1
7: Feb 20 - Feb 26	Applications to geometry, Density	Sec 8.1 & 8.2	Quiz #5 & HW #5
8: Feb 27 - Mar 5	Applications to physics, Sequences	Sec 8.4 & 8.5	Quiz #6 & HW #6
9: Mar 13 - Mar 19	Geometric series, Convergence of series	Sec 9.1 & 9.2	Quiz #7 & HW #7
10: Mar 20 - Mar 26	Tests for convergence	Sec 9.3	Exam #2
11: Mar 27 - Apr 2	Power series & intervals of convergence	Sec 9.4	Quiz #8 & HW #8
12: Apr 3 - Apr 9	Taylor polynomials, Taylor series, Finding and Using Taylor series	Sec 9.5 & 10.1	Quiz #9 & HW #9
13: Apr 10 - Apr 16	What is a differential equation, Slope fields	Sec 10.2 & 10.3	Quiz #10 & HW #10
14: Apr 17 - Apr 23	Separation of variables	Sec 11.1 & 11.2 & 11.4	Quiz #11 & HW #11
15: Apr 24 - April 30	Growth & decay	Sec 11.5	Exam #3
17: May 1 - May 3	Review		

Subject to Change Statement

Information contained in the course syllabus, other than the grade and absence policy, may be

subject to change with advance notice, as deemed appropriate by the instructor.

Confidentiality of Student Records

http://www.registrar.arizona.edu/personal-information/family-educational-rights-and-privacy-act-1974-ferpa?topic=ferpa

Class Attendance and Participation

Students are expected to be regular and punctual in class attendance and to fully participate in the course. Students themselves are primarily responsible for attendance and class participation. Since students may be permitted to add classes beyond the official start date, instructors should be attentive to student enrollment dates when assessing adequate participation.

Instructors will provide students with written statements of their policies with respect to absences for all courses; instructors will provide students with statements of how participation will be evaluated for all courses.

The UA's policy concerning Class Attendance and Participation is available at: https://catalog.arizona.edu/policy/class-attendance-and-participation

University-wide Policies link

The Links to the following UA policies are provided here, https://academicaffairs.arizona.edu/syllabus-policies:

- Absence and Class Participation
- Policy Regarding Absences for Any Sincerely Held Religious Belief, Observance or Practice
- Threatening Behavior Policy
- Accessibility and Accommodations
- Code of Academic Integrity
- Nondiscrimination and Anti-Harassment Policy

Additional Resources for Students

UA Academic policies and procedures are available at http://catalog.arizona.edu/policies

Student Assistance and Advocacy information is available at http://deanofstudents.arizona.edu/student-assistance/students/student-assistance

Academic advising: If you have questions about your academic progress this semester, please reach out to your academic advisor (https://advising.arizona.edu/advisors/major). Contact the Advising Resource Center (https://advising.arizona.edu/) for all general advising questions and referral assistance. Call 520-626-8667 or email to advising@.arizona.edu

Life challenges: If you are experiencing unexpected barriers to your success in your courses, please note the Dean of Students Office is a central support resource for all students and may be helpful. The Dean of Students Office can be reached at 520-621-2057 or DOS-deanofstudents@email.arizona.edu.

Physical and mental-health challenges: If you are facing physical or mental health challenges this semester, please note that Campus Health provides quality medical and mental health care. For medical appointments, call (520) 621-9202. For After Hours care, call (520) 570-7898. For the Counseling & Psych Services (CAPS) 24/7 hotline, call (520) 621-3334.

Where to go, who to call if you're in crisis:

Located in Tucson? Call the Community-Wide Crisis Line 24 hours a day, 7 days a week at 520-622-6000.

Are you a University of Arizona student? If it is not an emergency and you are a UA student, call or walk-in to Counseling and Psych Services at 520-621-3334 Monday - Friday. Walk-in triage is available between 9 am and 4 pm Monday - Friday.

Are you a concerned friend? Concerned friends can find out more about helping a friend who might be experiencing problems through our Friend 2 Friend website.

Resources for sexual assault, relationship violence, and stalking.

24-Hour Hotlines:

The National Suicide Prevention Lifeline is a 24-hour, toll-free, confidential suicide prevention hotline available to anyone in suicidal crisis or emotional distress. By dialing 1-800-273-TALK (8255), the call is routed to the nearest crisis center in our national network of more than 150 crisis centers. The Lifeline's national network of local crisis centers provides crisis counseling and mental health referrals day and night.

Crisis Text Line: Text HOME to 741741 from anywhere **in the United States**, anytime, about any type of crisis. A live, trained Crisis Counselor receives the text and responds, all from a secure online platform. Find out more about how it works at crisistextline.org.

Suicide Prevention for LGBTQ Youth through the Trevor Project:

- **The Trevor Lifeline** is a 24/7 suicide hotline: 866-4-U-TREVOR (1-866-488-7386)
- **TrevorChat:** Online instant messaging available 7 days a week, 3 pm - 10 pm ET (12 pm -- 7 pm PT)
- **TrevorText:** Confidential and secure resource that provides live help for LGBTQ youth with a trained specialist, over text messages. Text TREVOR to 1-202-304-1200 (available 7 days a week, 3 pm - 10 pm ET, 12 pm -- 7 pm PT)

Veterans' Suicide Prevention Lifeline: 1-800-273-TALK (1-800-273-8255)

SAMHSA Treatment Referral Hotline (Substance Abuse): 1-800-662-HELP (1-800-662-4357)

National Sexual Assault Hotline: 1-800-656-HOPE (1-800-656-4673)

Loveisrespect (National Dating Abuse Helpline): Call 1-866-331-9474 (TTY: 1-866-331-8453). Text LOVEIS to 22522 - you'll receive a response from a peer advocate prompting you for your question. Go ahead and text your comment or question and we will reply.