

MATH 2414.004, Spring 2026

Calculus II — Syllabus

Instructor Information	
Professor:	Dr. Stephen Graves
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The preferred method of contact is via Canvas.
<https://attyler.instructure.com>

Class Meeting Times			
Section	Days	Times	Location
004	MoWeFr	13:25 – 14:40	RBN 4024

Office Hours			
MoWeFr	09:15 — 09:45	RBN 4011	
Tu	12:00 — 13:00	RBN 4011	

Also by appointment arranged by email

1. COURSE INFORMATION

1.1. Official Course Description. A study of differentiation and integration of transcendental functions, polar coordinates, techniques of integration, sequences, series, indeterminate forms, improper integrals.

1.2. Course Prerequisites. A grade of C or better in Math 2413, *Calculus I*.

1.3. Student Learning Outcomes. Upon completion of this course, students should be able to do the following:

- Apply integration to solve problems involving area, volume, and physical work.
- Apply substitution, integration by parts, trigonometric substitution, partial fractions to evaluate definite and indefinite integrals.
- Apply the concepts of limit, convergence and divergence to evaluate some classes of improper integrals.
- Define sequences and series, and determine convergence or divergence.
- Find the Taylor and MacLaurin series to represent elementary functions.
- Apply the ideas of polar coordinates to find areas, lengths of curves and representations of conic sections.

2. IMPORTANT DATES

12 Jan. First Day of Classes; 19 Jan. Dr. MLK, Jr. Day (*No classes*); 26 Jan. Census Date; 9 Mar. – 13 Mar. Spring Break (*No classes*); 30 Mar. Withdrawal Deadline; 27 Apr. – 1 May Final Exams

I will not hold classes on Good Friday, 3 April.

3. COURSE CONTENT

3.1. Required Texts.

a. Primary, *Calculus I, II, & III: A Problem-Based Approach with Early Transcendentals* by Mahavier < Allen, Browning, Daniel, & So.¹ We will cover Chapters 4 – 7.

b. Reference *Calculus Volume 2* by Openstax (Herman & Strang)²

c. Recommended

The 5 Elements of Effective Thinking
by Edward Burger and Michael Starbird.³
ISBN 978-0691156668

3.2. Canvas & Email. You are expected to check Canvas at least daily, and also expected to check your university email. All written work other than exams will be submitted via Canvas.

3.3. Grading. Scores will be posted on Canvas. After the end of the semester, final course letter grades will be available at <https://my.attyler.edu>. Numerical grades of at least 70% will earn no less than a C; numerical grades of at least 80% will earn no less than a B; numerical grades of at least 90% will earn an A. Any grade below 70% will earn an F.

Your grade will be computed on the 100% scale by a weighted average: participation will count for 40% of the grade, homework assessment will count for 10% of the grades, and the average of three in-class exams and a final will count 50% of the grade. There is one additional condition: you have to have a passing participation grade, and you have to pass the final. Without those, you cannot pass the course and will earn an F.

3.4. Course Structure. Everything you need for the course will be distributed via Canvas.

3.5. Participation, 40%. This is real participation, not just answering questions. You will be required to present and defend work at the board. Every day.

3.6. Homework Assessment, 10%. At the beginning of the semester (before the first test) your homework will be to write up a perfect version of a problem of your choice,

usually one that is presented in class. Later in the semester it will be your job to write up a perfect version of one that is not presented.

3.7. Exam Average, 50%. There will be 3 comprehensive in-class exams. If you have been staying on top of the course work and practice problems, these should be workable. Upcoming exams will be announced at the beginning of every class. **Tentative dates:** 4 February, 27 February, and 30 March.

The final exam will be held according to the university's standard final exam schedule with the slight modification that our class occupies two time slots. Once I know the time, date, and location of the final, it too will be announced at the beginning of every class.

If you don't take the final exam, you earn an F for the course.

4. COURSE POLICIES

4.1. Academic Honesty. *All work submitted must be your own.* Violations will be processed according to the established guidelines of the department, college, and university. Violations of academic integrity include – but are not limited to – cheating, fabrication (also called falsification), or plagiarizing. A range of academic sanctions may be taken against a student who engages in academic dishonesty.

- Submitting the *homework* of another student is plagiarism. So is *presenting* the work of a student as if it is your own.
- Submitting work generated by “AI” (large language models, diffusion models, etc.) as if you had created it without the software tool is plagiarism.
- Find the answers to assigned work online and submitting it as your own work is plagiarism.
- Plagiarizing work will result in a grade of 0 for the category, not just the assignment.

- Cheating on an exam will result in an F for the course.
- Posting copyrighted material to the internet without the prior written permission of the copyright holder is illegal.

4.2. Civil Environment. The free exchange of ideas is a central part of a university education. Class will be conducted in a polite and professional manner and I expect students to behave politely and professionally. *Disruptive behavior will not be allowed and is judged at my sole discretion.* Persistently bad behavior will result in your removal from the classroom.

4.3. Personal Electronics. Students are required to have access to a device capable of accessing Canvas and a device capable of scanning hand-written work for upload to Canvas.

4.4. Late & Missed Work.

- Late work will not be accepted.
- Missed participation grades and homework assessments will count as 0s.
- Alternative testing will be arranged for excused absences.
- A student missing one exam due to documented illness or emergency is eligible to replace the missed exam grade with the grade from their final exam.
- Students missing more than one in-class exam have failed the course and will receive an F.
- Students missing the final exam have failed the course and will receive an F.

5. UNIVERSITY POLICIES

The University has many policies required to be disclosed to students; as they frequently change, and in fact the location of the list of these policies frequently changes, it is better to read the **University Policies and Information** page linked from the Canvas course.

NOTES

1. <https://www.jiblm.org/mahavier/calculus/html/chapter-4.html>
2. <https://openstax.org/books/calculus-volume-2/pages/1-introduction>
3. This inexpensive book can totally change how you view learning and I recommend it to anyone who thinks they might struggle with course material, whether or not they're in my classes.