

Course: M 172 Sec. 01 (CRN 50771) 3 cr., Summer 2019
Calculus II
MTWR 9:30–10:45am in MATH 305

Instructor: Esmail Parsa
Office: Corbin 364

Econtact: esmaeil.parsa@umontana.edu
Hours: MTW 10:45-11:45

Prerequisites: M 171 (Calculus I)

Text: *Calculus (single variable), 6th edition*, by Hughes-Hallett, Gleason, McCallum, et al, Available online and at the UM bookstore. The price at the bookstore is quite competitive, so I would recommend checking it out. Also available as an e-text at wiley.com.

Important Dates:

First class meeting	Monday, May 13;
Memorial Day - No Classes	Monday, May 27;
last day to add by Cyberbear	Wednesday, 29 May (5pm);
last day to drop by Cyberbear, or select Audit grade option	Wednesday, 29 May (5pm);
No Classes	Monday-Friday, July 1-5;
last day to add/drop by paper form	Monday, 8 July (5pm);
last class meeting (during finals)	Friday, 26 July 9:30am–10:45pm.

Description: Techniques of Integration, Area computations, Improper integrals, Infinite series and various convergence tests, Power series, Taylor’s Formula, Polar coordinates, Parametric curves.

Learning outcomes: The official outcomes below are reflected in the description above; upon completion of this course, a student will be able to:

- Use the integral to find the area between two curves, and calculate volumes of revolution, work, the average value of a function, and arc length;
- Use standard integration techniques, including trigonometric substitution, integration by parts, and partial fractions;
- Identify and calculate improper integrals;
- Use parametrized curves in rectangular and polar coordinates, and calculate their derivatives, arc lengths and enclosed areas;
- Compute limits of infinite sequences, and test for monotonicity and boundedness;
- Compute sums of geometric series and telescoping series;
- Determine convergence, absolute convergence and divergence of infinite series using the standard convergence tests;
- Compute the radius and interval of convergence of power series;
- Compute Taylor series and Taylor polynomial approximation of functions

Assessment: Course grades are based on homework assignments, quizzes, three term tests, and a final exam. Traditional letter grades will be assigned using the +/– system (see *UM catalog* at catalog.umt.edu/academics/policies-procedures/). UM’s policy on Incomplete grades will be followed (see *UM catalog*).

Tentative grading schedule:

Item	Date(s)	Weight
Homework/Quizzes	13 May — 26 July	25%
Test # 1	Tuesday, 28 May	15%
Test # 2	Thursday, 13 June	15%
Test # 3	Tuesday, 9 July	15%
Cumulative Final Test	Friday, 26 July	30%

(over)

Homework: Assignments are set regularly, and a subset of the assigned problems is graded. The assigned problems represent only a minimal set of problems. You should do the more straightforward exercises on your own as a warmup. I recommend working additional problems whenever possible, especially in an area you find challenging. *Keep in mind that the only way to learn mathematics is to do mathematics.* Students are responsible for compiling their own ‘solution sets’, comprised of their own submissions, augmented by notes from meetings with other students and with the instructor.

I urge you to acquire the habit of staying on schedule with your reading and homework. This helps to maximize the material you’re able to absorb in class, meaning less effort preparing for tests.

Online homework: To access the online homework, you can visit the website <http://lennes.math.umt.edu/webwork2>. From there you will be able to click on our class name (172-Calculus-II-2019-Summer) and then login. Your user ID is your last name, your initial password is the last 6 numbers of your student ID. Please change your password. Let me know if you have problems logging in. If you registered for the class late I will need to manually enter you into the system.

Course Moodle pages: These are located at <https://moodle.umt.edu/course/view.php?id=27177>. This is a face-to-face course not making heavy use of Moodle. Nonetheless, students should check the Moodle site regularly to stay in tune with the course flow (announcements, homework, grade book, etc.).

Accommodation: The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. If you have a disability that adversely affects your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or 406.243.2243. The instructor will work with you and Disability Services to provide an appropriate modification.

General Remarks

On homework: Please use complete sentences, proofread, and polish your work prior to submission. Solutions should be clearly written, giving thorough explanations. Don’t assume your audience can read your mind. It often helps to look over your solutions before submission and ask yourself if a classmate could easily understand what you’ve written. You’re encouraged to type homework solutions unless your handwriting is clear. You may work with others on course homework, and you’re encouraged to do so; however,

Solutions should be written down privately in your own words.

If you use an important idea of someone else, then please acknowledge that person by giving an appropriate citation in your write-up. This professional courtesy will not affect your grade. Finally, please staple your assignments.

On exams: As noted above, there are three in-class tests and a final exam. The latter is cumulative with a slight emphasis on the material not covered by the in-class tests.

On make-ups: Make-ups for tests will *not* be given unless there is a valid excuse cleared with the instructor *prior* to the test. At least your most detrimental assignment will be dropped; thus, there are no homework make-ups.

On deadlines: Any stated deadlines are firm; please do not ask for extensions.

On electronic devices: Cell phones must be silenced during class meetings and office visits. Use of a cell phone during a test for any purpose other than as a calculator is grounds for earning a zero score on that test.

On conduct: All students need to be familiar with the Student Conduct Code; it can be found in the ‘A to Z Index’ on the UM home page. All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the university.