Course Information and General Policies

Course Description

This course 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.

Prerequisites

MATH 1060

Text


Technology

- WebAssign (WA): Required. Your section instructor will provide you with information about registering for WebAssign. Student support can be found here: [https://webassign.com/support/student-support/](https://webassign.com/support/student-support/)

- Calculators: Students may use calculators with graphing and symbolic capabilities (e.g., the TI-89) as learning aides for homework and classroom exercises when permitted by the individual instructor. However, students must not come to rely on them because **no calculators will be allowed on common tests or the final exam.**

- Computer Software: Students may use computer software with graphing and symbolic capabilities (e.g., Maple) as learning aides for homework and classroom exercises when permitted by the individual instructor. Additionally, some instructors may require the use of such software in out-of-class assignments. Any such assignments will rely only on software available in campus computer labs. No computers will be allowed on common tests or the final exam.

- Cell phones must be turned off and stored away during class.

Websites

- [https://mthsc.clemson.edu/ug_course_pages/MTHS1080](https://mthsc.clemson.edu/ug_course_pages/MTHS1080) is the general MATH 1080 site containing this syllabus, a course schedule, instructional objectives/skill sets, announcements, and other useful information.

- [http://bb.clemson.edu](http://bb.clemson.edu) has links to the appropriate section of MATH 1080 in Blackboard. Students are responsible for checking this website (and university e-mail accounts) on a regular basis for announcements and class materials.

- [http://www.registrar.clemson.edu/publicat/catalog/2015/2015catalog.pdf](http://www.registrar.clemson.edu/publicat/catalog/2015/2015catalog.pdf) has detailed information about Clemson University undergraduate class regulations including academic integrity, attendance policy, mid-term grades, final examinations, and posting of grades.
Academic Integrity

Students are expected to adhere to the following official Clemson academic integrity statement. You may get and give help with your homework, but do not submit another student’s work as your own. Giving someone else access to your Blackboard and/or WebAssign account could be considered academic dishonesty.

“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.”

Attendance

Regular and punctual class attendance is expected. Students are responsible for all notes, assignments, and announcements made in class. Those who have more than 8 absences are subject to being dropped from the course. Students must provide the instructor with proper documentation for university sanctioned absences. If the instructor does not arrive in the classroom within 15 minutes after the scheduled start time, class is dismissed for the day.

Any exam that was scheduled at the time of a class cancellation due to inclement weather (or any university cancellation) will be given at the next class meeting unless contacted by the instructor. Any assignments due at the time of a class cancellation due to inclement weather will be due at the next class meeting unless contacted by the instructor. Any extension or postponement of assignments or exams must be granted by the instructor via email or Blackboard within 24 hours of the weather related cancellation.

E-mail

Instructors often use e-mail to make announcements and distribute course materials. Students are responsible for checking their university e-mail accounts regularly. At least once every weekday is expected. An announcement made via e-mail is equivalent to an announcement made in class.

Grading Policy

The final course grade will be determined by the following scores:

- Three common unit tests (T1, T2, T3); weighted 20% each.
- WebAssign (WA); weighted 5%.
- Section grade (SG) - consisting of in-class work, homework, quizzes, etc. as determined by the section instructor; weighted 10%.
- Mandatory, comprehensive, common final exam (FE); weighted 25%. The final exam is mandatory (no exemptions) and comprehensive. No rescheduling of the final exam is permitted.
To earn a passing grade for the course, a student must have:

(a) a final exam score of 60 (60%) or higher

or

(b) a weighted average test and final exam score (WTAVG) of 60 (60%) or higher where the
weighted test average is computed as

$$WTAVG = \frac{0.20(T1 + T2 + T3 + FE - \min(T1, T2, T3, FE)) + 0.25FE}{85}$$

where T1, T2, T3 and FE are the scores on Tests 1 - 3 and the Final Exam. This formula has the
effect of replacing the lowest test score with the final exam score if this benefits the student.

If neither of the conditions (a) or (b) above are met, the final course grade is F and the
following computation of course average is irrelevant.

If either of the conditions (a) or (b) above are met, the final numerical course average (CRSAVG)
is computed as:

$$CRSAVG = 0.05WA + 0.10SG + 0.20(T1 + T2 + T3 + FE - \min(T1, T2, T3, FE)) + 0.25FE$$

where the final exam score may replace the lowest test score if it improves the final numerical course
average.

If either of the conditions (a) or (b) above are met, the final letter grade is determined from the
course average according to a standard 10-point grading scale: 90% - A, 80% - B, 70% - C, 60% - D, below 60% - F.

Midterm Grade:

On or before February 26th, your instructor will give you a midterm grade, calculated as follows. Please note that your midterm grade is only an estimate of your grade. Your final course average could be significantly different from your midterm grade.

$$Midterm = \frac{(0.60T1 + 0.05WA + 0.10SG)}{75} \times 100$$

Common Unit Exams and Final Exam

There will be three common tests during the academic semester as well as a common final exam.

- Exam 1: Wednesday, February 3 from 5:30 - 7:00 pm
- Exam 2: Wednesday, March 2 from 5:30 - 7:00 pm
- Exam 3: Wednesday, April 13 from 5:30 - 7:00 pm
- Final Exam: Monday, April 25 from 11:30 am - 2:00 pm

An absence from any exam will result in a grade of zero. If you miss an exam due to an emergency that would qualify as an excused absence, you must inform your instructor within 24 hours of the scheduled exam. In the case of an excused absence for a unit test, the final exam score may be used in place of the missing test score. The use of notes, a calculator, computer, textbook, cell phone, or any other technology is prohibited on all MATH 1080 tests and the final exam.
Questions on Exam Grading

If you have a question on the grading of an exam, you must contact your instructor within one week after the graded exams are returned in class. Do not write or make any marks on the graded exam.

Accommodations

Students with disabilities who need accommodations should make an appointment with the Director of Disability Services to discuss specific needs within the first month of classes. Students should present a Faculty Accommodation Letter from Student Disability Services when they meet with instructors. Student Disability Services is located in Suite 239 Academic Success Building (656-6848; sds-l@clemson.edu). Please be aware that accommodations are not retroactive and new Faculty Accommodation Letters must be presented each semester. If you have a letter stating specific testing accommodations to which you are entitled, please turn in a copy to your instructor at least one week prior to the test. Your instructor will keep you informed as to how your accommodations will handled.

Title IX

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. This policy is located at [http://www.clemson.edu/campus-life/campus-services/access/title-ix/](http://www.clemson.edu/campus-life/campus-services/access/title-ix/). Mr. Jerry Knighton is the Clemson University Title IX Coordinator. He also is the Director of Access and Equity. His office is located at 111 Holtzendorff Hall, 864.656.3181 (voice) or 864.565.0899 (TDD).

Class Structure

Class structure will be determined by your instructor. Prior to each class meeting, you should

- Complete the homework assignment from the previous class meeting.
- Read the assigned material in the text for the scheduled section.
- Begin the next homework assignment.

Regardless of variations in class structure, it is ultimately the students’ responsibility to master the objectives of the course. Resources available include the instructor, fellow students, the text, the MATH 1080 website, the section’s Blackboard site, the library, on-line resources, and Supplemental Instruction (SI). Dedicated effort and study are needed to master the learning objectives of this course. Students are expected to actively participate in their own learning by reading the book, practicing the testable skills, and seeking help in a timely manner when necessary.

Math Help Center

The Math Help Center offers drop-in tutoring Monday - Thursday from 2 - 5 PM in Martin, M 307. The help center is staffed by Math 1080 instructors. You are encouraged to take advantage of this resource whenever you have questions.
Topical Outline and Testable Skills

Students should refer to the Daily Course Calendar at the course website for a listing of topics covered in Math 1080, and the days when they will be covered. Also posted are skills sets for each unit, which give a detailed listing of the skills that students are expected to master.

Learning Outcomes

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

1. Apply the Riemann sum and the associated definite integral for geometric and physical quantities arising frequently in engineering applications (e.g. mass, work, centroids, volume of a solid of revolution).

2. Apply integration techniques (integration by parts, trigonometric integrals, trigonometric substitution, partial fractions, and improper integrals) to evaluate integrals.

3. Represent the equations of graphs on the rectangular coordinate system in either rectangular, parametric, or polar form and describe the relationship between polar and rectangular coordinates.

4. Apply calculus techniques to study curves in rectangular, parametric, or polar form and recognize which form is suitable for a given application.

5. Demonstrate fundamental concepts in sequences and series (e.g. convergence properties), which will be needed in applications. Demonstrate problem-solving and communication skills.

General Education Competencies

This course meets the Mathematics and Critical Thinking general education competencies.

B. Mathematics: Demonstrate mathematical literacy through solving problems, communicating concepts, reasoning mathematically, and applying mathematical or statistical methods using multiple representations where applicable.

H. Critical Thinking: Demonstrate the ability to assemble information relevant to a significant, complex issue, evaluate the quality and utility of the information, and use the outcome of the analysis to reach a logical conclusion about the issue.

Course Coordinator

Meredith Burr, O-216 Martin Hall, 656-6406, burr3@clemson.edu