

Syllabus
Math 142: Calculus II
Sections 031 & 032 Fall 2021

Instructor: Steven Derochers
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Lectures: TuTh 4:25-5:40pm in Humanities 202

Lab Meetings: M in Coliseum 1013 at 2:20-3:10pm or 3:30-4:20pm for sections 031 and 032 respectively

Recitations: W in DMSB 121 at 2:20-3:10pm for section 031 and in Coliseum 2008 at 3:30-4:20pm for section 032

Textbook and Materials: *Thomas' Calculus: Early Transcendentals* (13th ed), Thomas, Weir, and Hass, Pearson, 2014. Students may also need a graphing calculator and access to a computer with internet access and a printer.

Prerequisite: Qualification through placement, or a grade C or better in MATH 141.

Bulletin Description: Methods of integration, sequences and series, approximations.

Learning Outcomes: A student who successfully completes Calculus II (Math 142) should continue to:

- Develop as an independent learner with the ability to approach problems from a conceptual point of view
- Utilize more than one idea in a single problem, and to apply appropriate calculus skills to problems in context
- Master concepts and gain skills needed to solve problems related to techniques of integration, sequences and series, Taylor polynomials and series, parametric and polar coordinate curves.

Expectations: Students are expected to read assigned sections in the text and complete periodic homework assignments and quizzes. Students should check email and Blackboard frequently for announcements and course documents such as solutions and worksheets.

Grade Distribution:

Homework	15%
Quizzes	5%
Gateway Exams	10%
Labs	10%
Tests (3 In-Class)	40%
Final Exam	20%

Grading Scale:

A	90%-100%	C	70%-76%
B+	87%-89%	D+	67%-69%
B	80%-86%	D	60%-66%
C+	77%-79%	F	below 60%

Attendance Policy:

Attendance policies will follow university guidelines. Attendance will be taken each class and a seating chart may be enforced in order to facilitate university contact tracing. Please take precautions to minimize the risk of spreading COVID-19. In addition to this, students that miss class should be proactive in contacting your instructor with supporting documentation and setting up make up options for missed work in a timely manner within 24 hours. Do not wait until the next time you come to class, for example. Students are ultimately responsible for catching up with any missed material or announcements.

Testing Policy:

There will be three written exams during the semester. Testing dates are given below. Exact material for each exam will be announced in class before the exam date. A makeup test will only be given in an extreme situation and will require written documentation.

If it will raise a student's course average, the grade earned on the final exam may replace one of the in-class exam grades.

Homework Policy:

Homework assignments will be given throughout the semester through MyMathLab (mymathlab.com). It is highly recommended to have assignments completed before the due date to leave time to resolve any questions that may occur. Students may discuss homework assignments with each other, but it is the responsibility of the individual student to learn and understand the course material.

Quiz Policy:

Short written quizzes will be given periodically. Appropriate written documentation must be provided to make up any quiz.

Lab Assignments:

During non-Gateway weeks, lab assignments will be given to help students develop real-world computation skills with respect to calculus topics.

Gateway Exams:

These short 30-minute exams help you achieve mastery over basic calculus skills and assure you are prepared for future material. Each exam is open for three weeks. You are allowed one attempt per week during these periods, and are taken asynchronously. Practice Gateway exams, which are available for each Gateway, do not count towards passage of the corresponding Gateway exam, but are key to preparation. The first Gateway exam will cover topics in limits and derivatives. The second Gateway exam will cover integration techniques. The dates for the Gateway exams are given below. The Gateway exams are accessible on WebWork. During your computer lab sessions, your TA will explain this process. The "proctoring" password, used to avoid accidentally starting an exam, is **gateway**.

Final Exam: Tuesday, December 7 at 4:00p.m.**Important Dates:**

Aug	19	First Day of Classes; Readiness Test Opens
Aug	25	Readiness Test Closes
Sep	6	Labor Day (No Classes); Gateway 1 Opens
Sep	21	Exam 1
Sep	26	Gateway 1 Closes
Oct	7-8	Fall Break (No Classes)
Oct	11	Gateway 2 Opens
Oct	26	Exam 2
Oct	31	Gateway 2 Closes
Nov	3	Last day to drop a course or withdraw without a grade of "WF" being recorded
Nov	23	Exam 3
Nov	24-28	Thanksgiving Break (No Classes)
Dec	3	Last Day of Classes
Dec	7	Final Exam at 4:00-6:30pm

Getting Help:

Students are encouraged to attend office hours or schedule appointments if particular difficulties arise. In this course, the subject matter builds upon itself, so it is important to catch problems with understanding early. Students should also be aware of the Math Tutoring Center

(www.math.sc.edu/math-tutoring-center) and of the Student Success Center satellite locations in residence halls and online (<http://sc.edu/success>). Help is also available through supplemental instruction (<http://sc.edu/success/supplementalinstruction.html>).

Disability Services:

Any student with a documented disability should contact the Office of Student Disability Services at 777-6142 to make arrangements for appropriate accommodations.

Honor Code:

The Honor Code applies to all work for this course. Students should review the Honor Code at <http://www.sc.edu/academicintegrity>. Students found violating the Honor Code will be subject to discipline.

COVID-19 Information:

Face Coverings

Face coverings protect you and your classmates in case the wearer is unknowingly infected but does not have symptoms. Faculty, students, and staff should follow university guidelines regarding an appropriate face covering in all classrooms and in other designated areas on campus. Face coverings should cover your nose and mouth in a community setting. Students with conditions that prohibit them from wearing a face covering must register with the Student Disabilities Resource Center (SDRC); appropriate accommodations will be approved by the SDRC, and I will be notified.

Hand and Surface Hygiene

Please use hand sanitizer upon entering the classroom and wipe down your desk/table and chair at the beginning of class. All wipes should be disposed of in the trash can and not left on the desk or floor.

Student Well-Being

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to contact the Division of Student Affairs and Academic Support. If you are comfortable doing so, please notify me as the professor so that we can find resources that may be helpful. Students do not learn when they do not feel safe. If you feel unsafe on campus at any time in any place, please contact Police Dispatch at 803-777-4215 (in an emergency, please call 911) and reach out to the Division of Student Affairs and Academic Support. Again, if you are comfortable doing so, please notify me as the professor, and I will do my best to make appropriate accommodations

Privacy: At no time will University of South Carolina faculty provide the name, identifying characteristics such as age or gender, the number or identity of students in classes who test positive for COVID-19, university identification numbers, or grades to any person except the student. This is to protect the identity and personal information of every student on campus. Your information will not be given out to parents, friends, or non-university verified email addresses for students.

Weekly Schedule:

The following is a *tentative* weekly schedule of topics and subject to change.

Lecture	Sections	Topics
1	3.1-3.9	Introduction and Review of Derivatives
2	5.4-5.6	Review of Derivatives and Basic Integral Rules
3	8.1	Additional Basic Integral Rules
4	8.2	Integration by Parts
5	8.3	Trig Integral Techniques
6	8.4	Trig Substitution
7	8.5	Partial Fractions
8	8.7	Trapezoidal Rule and Simpson's Rule
9	8.8	Limits Review and Improper Integrals
10		Review
11		Exam I
12	10.1	Sequences
13	10.2	Intro to Series and Nth Term Test
14	10.2	Geometric Series Test
15	10.3	Integral Test
16	10.4	Comparison Test and Limit Comparison Test
17	10.5-10.6	Absolute Convergence and Alternating Series Test
18	10.5-10.6	Ratio Test and Root Test
19		Exam II
20	10.7	Power Series
21	10.8	Taylor Series
22	10.9-10.10	Convergence and Applications of Taylor Polynomials
23	11.1-11.2	Parametric Curves
24		Review
25		Exam III
26	11.3	Polar Coordinates
27	11.4-11.5	Area and Arc Length in Polar Coordinates
28		Review