Syllabus
Math 141: Calculus I
Sections Q42, 42, 43, 44, 45 Fall 2021

Instructor: Shaoyun Yi
Office: COL 1005D
Office Hours: MW 1:30-3:30 pm, or by appointment
Email: shaoyun@mailbox.sc.edu
Class Meetings: MW 5:30-6:45 pm @ Callcot Soc Sci Ctr Room 201
MyMathLab Course ID: yi81309
MS Team Code: l1fswjj
Webwork: https://webwork.math.sc.edu/webwork2/MATH141-FALL-2021-YI

Teaching Assistant: Chase Fleming
Office: COL 3004
Email: cf17@email.sc.edu
Recitations Meetings: Tuesday

Sections Q42, 42, 43: T 1:15-2:05 pm @ Hamilton College Room 143

Sections 44, 45: T 2:50-3:40 pm @ Darla Moore School of Business Room 119

Computer Lab Meetings: Thursday

Sections Q42, 42, 43: Th 1:15-2:05 pm @ Carolina Coliseum Room 2013

Sections 44, 45: Th 2:50-3:40 pm @ Carolina Coliseum Room 2013

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 the Math Placement Test or through a grade of C or better in MATH 115.
Bulletin Description: Functions, limits, derivatives, introduction to integrals, the Fundamental Theorem of Calculus, applications of derivatives and integrals.
Learning Outcomes: Upon successful completion of this course, students should be able to:

Demonstrate understanding of the following concepts: Limits and Continuity of Functions, the Derivative, Applications of the Derivative: Study of Graphs, Minima-Maxima, Mean Value Theorem, the Integral, Fundamental Theorems of Calculus

Compute derivatives and basic integrals

Apply these concepts to modeling real life problems at the usual level of first semester calculus

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:	
SageMath Labs	10%
Gateways	10%
Homework	12%
Quizzes	12%
Tests (**3** tests)	36%
Final	20%

Grading Scale:

A	90%-100%	C	70%-74%
B+	85%-89%	D+	65%-69%
B	80%-84%	D	60%-64%
C+	75%-79%	F	below 60%

Attendance Policy:
Students are expected to attend class, arrive on time, and stay for the entire class. Attendance will be recorded daily. The instructor may excuse absences with appropriate documentation of illness, emergency, or official university travel. It is the student's responsibility to provide such documentation in a timely manner. In accordance with university policy, a letter grade may be deducted for students who miss more than 10% of classes for unexcused reasons. Students are responsible for missed classes and announcements.

Make-up work:
Make-up work will not be assigned, except in cases of excused absences. In the event of emergency or illness, arrangements for make-up work must be made within **24 hours** of the student's absence. In the case of official university travel, students should contact the instructor at least one week **before** traveling to make arrangements to complete assignments.

Disruptions:
Disruptive behavior of any kind will not be tolerated. Cell phones should remain **o** during class.

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.

Homework:
There will be a weekly online homework assignment, via the **Pearson MyMathLab software** (Course ID: yi81309). Please follow these instructions to set up your account and join the course. This requires a Pearson access code; this should have been bundled if you bought your book new at the bookstore. Homework will be graded for complete and correct solutions, not just the final answer. **All homework must be done before the due date.** Under **NO** circumstances will late homework be accepted after solutions are posted. Students are allowed to work together on homework, but copying homework will not be tolerated.

Quizzes:
There will be a weekly quiz in recitations based on the most recent homework and lecture materials. Students will complete quizzes individually. The lowest **one** quiz grade will be dropped. **There will be no make-up's for missed quizzes for unexcused reasons**; see the **Make-up work policy** above.

WebWork: WebWork is an online homework system developed by the Mathematical Association of America. The location of our course is
https://webwork.math.sc.edu/webwork2/MATH141-FALL-2021-YI.
There is no cost to you for its use. WebWork will be used for gateway exams.

Gateways:
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 precalculus and early calculus topics. It opens on **September 6 (M)** and closes on **September 26 (Su)**, preceded by a week of practice gateway exams. The second gateway exam will cover di erentiation rules. It opens on **October 11 (M)** and closes on **October 31 (Su)**, preceded by a week of practice gateway exams. The gateway exams are accessible on WebWork. During your computer lab sessions, your TA will explain this process, and in particular help you get started with the Orientation on Webwork. In order to pass a gateway test, you must correctly answer all but one of the total six to eight problems within 30 minutes.

Tests:
There will be three tests and a comprehensive final exam throughout the semester. Calculators will not be allowed during exams. In general, no make-up tests will be given. Exceptions may be made for excused absences. See the **Make-up work policy** above. Tests are **tentatively** scheduled as follows:

Test 1: Wednesday, September 29
Test 2: Wednesday, October 27
Test 3: Monday, November 22
Final Exam: Wednesday, December 8, 04:00 PM

Table 1: **Important Dates:**

Aug	19	Th	First Day of Classes
Aug	25	W	Last day to change/drop a course without a grade of "W" being recorded
Sept	6	M	Labor Day Holiday (No Classes)
Sept	6	M	**Gateway 1 open**
Sept	26	Su	**Gateway 1 closed**
Sept	29	W	**Test 1**
Oct	7-8	Th-F	Fall Break (No Classes)
Oct	11	M	**Gateway 2 open**
Oct	27	W	**Test 2**
Oct	31	Su	**Gateway 2 closed**
Nov	3	W	Last day to drop a course or withdraw without a grade of "WF" being recorded
Nov	22	M	**Test 3**
Nov	24-28	W-Su	Thanksgiving Recess (No Classes)
Dec	3	F	Last Day of Classes
Dec	4	Sa	Reading Day
Dec	8	W	**Final Exam at 04:00 PM**

Additional Help:
Tutors are available in the **Math Tutoring Center** (See https://bit.ly/2slwj18), in **Student Success Center satellite locations** in the residence halls, and **online**. Help is also available through **supplemental instruction**. (See www.sc.edu/success for peer tutoring and SI information.) Students are encouraged to come see me during **office hours** as well.

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.

Table 2: **Weekly Schedule:** The following is a *tentative* weekly schedule of topics and subject to change.

Week	Sections	Topics
1	1.1-1.6	Review of Precalculus
2	2.1-2.3	Rates of Change, Limits, One-Sided Limits, Continuity, Limits Involving Infinity
3	2.5-2.6, 3.1	Continuity, Limits Involving Infinity, Definition of the Derivative
4	3.2-3.3	Derivative as a Function, Di erentiation Rules
5	3.3-3.5	Di erentiation Rules (cont.), Derivative as a Rate of Change, Trig Derivatives
6	3.6-3.9	Chain Rule, Implicit Di erentiation, Derivatives of Inverse Trig and Inverse Functions
7	3.10, 4.1	Related Rates, Extreme Value Theorem
8	4.2-4.5	Mean Value Theorem, First Derivative Test, Curve Sketching, L'Hôpital's Rule
9	4.6	Applied Optimization
10	4.8	Antiderivatives
11	5.1-5.3	Approximating Area Under a Curve, Definite Integral
12	5.4-5.6	Fundamental Theorem of Calculus, Integration by Substitution
13	6.1	Volumes by Shells
14	6.2	Volumes by Washers, Review