

# Syllabus Quick Facts

## MATH 141: Calculus I — Fall 2024

### Course Information

*Instructor Email:* [cm264@mailbox.sc.edu](mailto:cm264@mailbox.sc.edu)

*Course Webpage:* <https://coffeeintotheorems.com/courses/2024-2/fall/math-141/>

*Office Hours:* The instructor's office is LeConte 345C. The office hours are Monday, Wednesday, and Friday from 12:00pm to 1:00pm, and Tuesday/Thursday from 11:30am until 12:30pm.

### Grading Components

Course grades are determined by the following components:

|               |     |
|---------------|-----|
| Check-Ins     | 5%  |
| Labs          | 10% |
| Gateway Exams | 10% |
| Homework      | 20% |
| Exam I–III    | 30% |
| Final Exam    | 25% |

### Attendance

Attend each lecture and show up on time. Address any absences—anticipated or otherwise—with the instructor. If you miss a lecture, you are responsible for any material covered, any work assigned, any course changes made, etc. during the class. Five or more unexcused absences from lectures could result in receiving a grade penalty per additional absence or an 'F' in the course. Furthermore, excessive lateness will also count as an absence.

### Check-Ins

There will be a check-ins *every* class, typically at the start of class. Because solutions will often then be immediately discussed, no make-up check-ins will be given (except under extraordinary circumstances).

### Labs

Nearly every week, students will have a lab to complete using SageMath. These labs will help engage them with the material and learn some basic programming skills. Students will have a designated lab time to work on these labs. However, if a student does not complete their lab during this time, they are still expected to complete and submit the lab on time.

## Gateways

There are two Gateway exams during the semester. The Gateway exams are 30 minute exams that will help students to achieve mastery over basic Precalculus (Gateway I) and differentiation (Gateway II) skills and help assure students that they are prepared for the future material.

## Homeworks

there will be weekly homework assignments. Homeworks will mostly be given and submitted using MyMathLab. Therefore, students will need to purchase an access code to this system at <http://www.mymathlab.com>. Students can also purchase access to a digital copy of the textbook when they purchase an access code.

## Exams

There will be three exams in this course, each worth 10% of the course grade for a total of 30% of the course grade. There will also be a final exam worth 25% of the course grade. Together, all exams are worth 55% of the course grade.

## Course Schedule

The following is a *tentative* schedule for the course and is subject to change.

| Date  | Topic(s)                    | Date  | Topic(s)                 |
|-------|-----------------------------|-------|--------------------------|
| 01/13 | Course Introduction         | 03/07 | Exam 2                   |
| 01/14 | Gateway I                   | 03/10 | Spring Break             |
| 01/15 | Graphical Limits            | 03/11 | Spring Break             |
| 01/16 | Lab 1                       | 03/12 | Spring Break             |
| 01/17 | Special Limits              | 03/13 | Spring Break             |
| 01/20 | MLK Day (No Class)          | 03/14 | Spring Break             |
| 01/21 | Gateway I                   | 03/17 | Int. Value Theorem       |
| 01/22 | Special Limits              | 03/18 | Lab 6                    |
| 01/23 | Recitation                  | 03/19 | Mean Value Theorem       |
| 01/24 | Review                      | 03/20 | Recitation               |
| 01/27 | Continuity                  | 03/21 | Integral Introduction    |
| 01/28 | Recitation                  | 03/24 | Integral Introduction    |
| 01/29 | Derivative Introduction     | 03/25 | Lab 7                    |
| 01/30 | Lab 2                       | 03/26 | Fund. Thm. of Calculus   |
| 01/31 | Derivative Rules            | 03/27 | Recitation               |
| 02/03 | Derivative Rules            | 03/28 | Fund. Thm. of Calculus   |
| 02/04 | Recitation                  | 03/31 | Fund. Thm. of Calculus   |
| 02/05 | Derivative Rules            | 04/01 | Recitation               |
| 02/06 | Recitation                  | 04/02 | Area & Average Value     |
| 02/07 | Exam 1                      | 04/03 | Recitation               |
| 02/10 | Graphical Derivatives       | 04/04 | Area & Average Value     |
| 02/11 | Lab 3                       | 04/07 | $u$ -Substitution        |
| 02/12 | Linearization/Differentials | 04/08 | Lab 8                    |
| 02/13 | Lab 4                       | 04/09 | $u$ -Substitution        |
| 02/14 | Max/Min/Inflections         | 04/10 | Recitation               |
| 02/17 | l'Hôpital's Rule            | 04/11 | $u$ -Substitution        |
| 02/18 | Gateway II                  | 04/14 | $u$ -Substitution        |
| 02/19 | l'Hôpital's Rule            | 04/15 | Lab 9                    |
| 02/20 | Recitation                  | 04/16 | Review                   |
| 02/21 | Implicit Differentiation    | 04/17 | Recitation               |
| 02/24 | Related Rates               | 04/18 | Exam 3                   |
| 02/25 | Lab 5                       | 04/21 | Volumes-by-Cross Section |
| 02/26 | Related Rates               | 04/22 | Lab 10                   |
| 02/27 | Recitation                  | 04/23 | Volumes of Rotation      |
| 02/28 | Optimization                | 04/24 | Recitation               |
| 03/03 | Optimization                | 04/25 | Volumes of Rotation      |
| 03/04 | Recitation                  | 04/28 | Review                   |
| 03/05 | Review                      | 05/03 | Final Exam               |
| 03/06 | Recitation                  |       |                          |