



Rutgers State University of New Jersey, Newark Campus
Department of Mathematics and Computer Science
Summer 2024

Course: Calculus 1 – Section 21:640:135:B1

Class Meeting: Smith Hall Room #240
Monday, Tuesday, Wednesday & Thursday 10:00 am – 12:30 pm

Professor: NAME: Jeffrey Jones
EMAIL: jj846@newark.rutgers.edu
OFFICE: Smith Hall Room #207

Office Hours-Extra Help:

- Monday thru Thursday: 9:15 – 9:45 am & 12:45 – 1:15 pm
- *Additional times are available by appointment*

In-class Quick Questions & Answers:

I will make every effort to get to class 10 minutes early and stay a few minutes after to answer any quick questions you may have.

Recitations:

These question-and-answer sessions are in addition to my office hours and are designed to help you prepare for each of the major exams in our class. They usually run for an hour and you may come and go as you wish. These will be scheduled on Thursdays from 1:00p-2:00pm and also on July 2nd, 1:00-2:00pm to help you in your final exam review.

Canvas: <https://canvas.rutgers.edu/>, will be used to make announcements, send emails, and post class recordings, grades, and other course material.

Course Description: Functions, limits, continuity, the derivative and rules for differentiation, applications, introduction to definite and indefinite integration, calculus of exponential and logarithmic functions, calculus of trig and inverse trig functions.

Prerequisites: 21:640:114 Precalculus, or placement by examination

Textbook: Calculus, Single Variable, Early Transcendentals with My Math Lab, Briggs, Cochran, & Gillett. Third edition, published by Pearson.

www.pearsonmylabs.com for My Math Lab, e-book, homework, quizzes, and tests.

Preliminary Assessment: You will take an assessment on the first day to determine how well prepared you are for the course. You will need to earn a minimum score of 70%, otherwise you will need to attend a brief (review) after class on Tuesday to review and then retake the assessment. Hopefully you then pass with at least 70%, if not, however, you are probably not ready for calculus this summer.

Homework: Homework will be assigned as material is covered in class. We will use an online homework system associated with the text. Its name is My Math Lab. Regularly working on homework outside of class is very important for your success in this course. You may work on the assignments to earn the highest grade possible. There are due dates. You may work on these assignments after the due date; however, there is a late penalty of 15% per day on the work done after the due dates. All assignments must be completed no later than 11:00 pm July 2, 2024.

Assessments: There will be five (5) tests and a final exam during this summer session. There will be a test every Monday during the second half of the class period. The material on the test will be the topics covered the previous week from Monday through Thursday. No make-up tests are given because if you do not miss more than three classes and are not late to class, your lowest, or missed, test grade will be dropped. Also, there is no time in the summer session to schedule make up tests. Your final exam will not be dropped. You will be given a study guide and practice problems to help you prepare for each test and also for the final exam.

Professor's Make-up Policy:

Make-up tests are not given. Homework may be worked on after the due date; it is subject to a 15% deduction each day for work submitted after the due date.

Attendance and Class Participation: Attendance and class participation are very important to and essential for your success in our class! You are expected to attend every class consistently, arriving on time, and remaining until the class ends. When possible, we will have a short break about half-way through the class. Cell phone usage is not permitted. Walking in and out of class during the class period are extremely disruptive to the class and detract from a focused/engaged learning environment so critical for success. Please do not leave class during the class period. Thank you!

Graphing Calculators Policy: are not used in class and not allowed during testing.

Electronics: Students are not use cell phones in class. Any cell phone seen during a test or exam will be considered a breach of academic integrity and will result in a 0 as the grade on that assessment or exam.

Grading: A: 90-100, B+: 87-89, B: 80-86, C+: 77-79, C: 70-76, D: 60-69, F: 0-59

- Home/classwork (inc: Attendance, Attention, Participation and Preparation) **15%**
- Tests (5 or 4 tests @ 12% each or 16% each if one is dropped) **60%**
- Final Exam **25%**

Important Dates:

Classes begin	Tues. May 28 th
Recitations for Tests: 1:00p-2:	Thurs. May 30; June 6, 13, 20, 27
Tests:	Mon. June 3, 10, 17, 24, July 1
Recitation for Final Exam: 1:00p – 2:00p	Tues. July 2 nd
Classes end	Tues. 07/02
Final Exam	Tues. 07/03

What should you do to be successful in our Calculus class?

You will see a module on Canvas entitled: **“Former Student Testimonials: their Keys to Success in Calculus”**. Here you will find letters from my former students who earned A’s in my classes. Natali, John and Nick learned Calculus from me this past Spring and all earned A’s in the same course you are taking this summer. I asked them if they would write a letter and share their secrets of success with you. Each was very happy to do so. I taught Joaquin his first math course as a freshman. He earned his B.A. and is now pursuing his Master’s degree.

I know that Calculus can be scary and I also know what you need to learn in our course to be ready for Calculus II. I am here because I want you to succeed and will do all I can to help you succeed! Please remember that there are some aspects of the course I do not control: I am required by the Math Department to complete the syllabus in the time allotted for the course. I will do this. You need to keep up the pace so you will succeed. Learning math requires daily time; cramming will not work. You must work through all of the exercises to learn the material. The secret to success is to study regularly, every day for about an hour or so with a goal of about 8 hours per week. If you do I think you’ll see that math can be quite enjoyable. Here’s the key: when you study, study as though you have to teach the class the next day. You want to focus on learning the math with the goal of understanding the math.

Attendance, Attention & Participation in class, and Preparation for class are essential for your success. Set a goal to attend every class on time!

The 3 P’s of success:

- *Preparation*
- *Presence*
- *Participation*

Please attend every class consistently, fully prepared, arrive on time, stay in class for the entire period, do NOT use your phone or watch. Please ask questions before class, during and after class; come see me during office hours for extra help. I want to help you experience success in our class and the Three P's are essential for your success in our class!

It is very important to ask questions as soon as there is something you do not understand. I'm here four days a week, before and after class for office hours. So please, come see me for help as soon as you have any questions.

Here are some specific objectives for your success:

- Attend every class, pay attention, ask questions, participate
- Stay in class for the entire period; do not use your phone/watch in class
- Work on your math about an hour or so each day.. about 8 hours each week. Please make sure you understand and can solve EVERY problem we discuss in class and assign for homework because the problems on the tests will be similar to these. I know this is a lot, but working on your math every day makes this possible to achieve
- Ask questions.. before class, during class after class... during office hours
- Remember I am here to teach you and also to help you
- You want to learn the math and you also want to understand the math because understanding leads to mastery which leads to success!

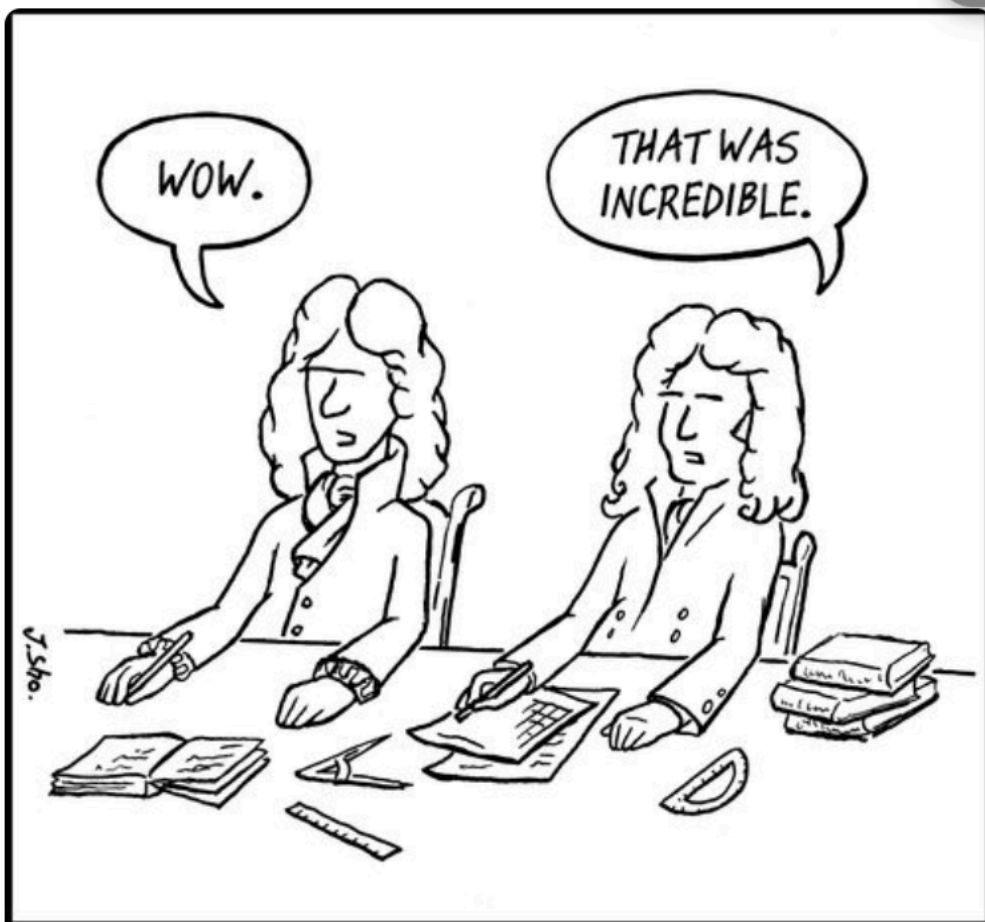
Class Expectations:

You may expect me to:

- Meet all classes on time and for the full class period.
- Provide clear instruction.
- Demand excellence.
- Do all I can to help you understand, learn and enjoy calculus.
- To treat the math classroom like a sport – I'm the coach.
- To make mistakes – I will make mistakes!
- Be available to meet with you for extra help during office hours.
- Respect you as individuals and encourage you to work hard and always do your best and to see you when you have questions and/or need my help.
- Grade each assignment fairly and return graded work in a timely manner.
- Respond to emails within 1 business day

You will expected to:

- Attend all classes on time and to remain in class for the full period.
- Turn your cell phone off when you come in class. Not use cell phones during class.
- Notify me promptly by email if it is necessary for you to miss a class.
- Take all tests and quizzes and complete all assignments on time and to the best of your ability.
- Utilize all learning aids to help you learn and master calculus.
- Ask questions when there are things you do not understand and to keep asking questions until you do understand.
- See me for Additional Instruction (office hours/extra help) as soon as you have any questions on what we are doing in class or on anything relating to our class.
- Maintain courtesy in class at all times.
- Follow all class policies described in this syllabus.
- Give this course your best effort to achieve excellence.



Leibniz and Newton invent calculus simultaneously.

This Course Covers the Following Content:

Course Outline:

Week 1: 5/28 – 5/30

Tuesday	Course introductions; 2.2 Limit definition; Diagnostic Test
Wednesday	2.3 – 2.6 Limits and Continuity
Thursday	3.2 - 3.3 The derivative and rules for differentiation; <i>Recitation</i>

Week 2: 6/03-6/06

Monday	3.4 Product & Quotient Rules Assessment 1: sections 2.2 – 3.3
Tuesday	3.5 Derivatives of the Trig Functions
Wednesday	3.6 Derivatives as Rates of Change
Thursday	3.7 Using the Chain Rule to find Derivatives; <i>Recitation</i>

Week 3: 6/10-6/13

Monday	3.8 Implicit differentiation. Assessment 2: sections 3.3 – 3.7
Tuesday	3.9 Derivatives of logarithmic and exponential functions.
Wednesday	3.10 Derivatives of inverse trigonometric functions.
Thursday	3.11 Related rates; <i>Recitation</i>

Week 4: 6/17-6/20

Monday	4.1 Maxima and minima. Assessment 3: sections 3.7 – 3.11
Tuesday	4.2 Mean Value Theorem
Wednesday	4.3 What the derivatives tell us.
Thursday	4.4 Graphing functions; <i>Recitation</i>

Week 5: 6/24-6/27

Monday	4.5 Optimization problems. Assessment 4: sections 3.11 – 4.4
Tuesday	4.6–4.7 Linear Approximation & L'Hôpital's rule.
Wednesday	4.9, 5.1 Antiderivatives & Approximating areas under curves.
Thursday	5.2–5.5 Integration; <i>Recitation</i>

Week 6: 7/01-7/03

Monday	5.4-5.5 continued Assessment 5: sections 4.4 – 5.5
Tuesday	Wrap-up & Review ; <i>Recitation</i>
Wednesday	Final Exam: 10:00 am – 12:30 pm Smith Hall Room 240

Cheating: Studying together and working on homework together is a great idea and I strongly encourage you to do so as long as each person in the study group contributes equally to the group. However, no additional aid or group help is permitted on quizzes. As an academic community dedicated to the creation, dissemination, and application of knowledge, Rutgers University is committed to fostering an intellectual and ethical environment based on the principles of academic integrity. Academic integrity is essential to the success of the University's educational and research missions, and violations of academic integrity constitute serious offenses against the entire academic community. The entire Academic Integrity Policy can be found here:

<http://academicintegrity.rutgers.edu/academic-integrity-policy/>

Anyone caught cheating can expect to receive a FAILING grade for the COURSE.

Free Tutoring: Free tutoring is available in the Learning Resource Center; call (973) 353-5608 to schedule an appointment.

Dropping courses MAY NEED to be done IN PERSON at the Registrar's office, if unable to do so on WebReg.

STUDENTS MUST BRING FINAL EXAM CONFLICTS TO MY ATTENTION IN A TIMELY MANNER TO BE CONSIDERED. FAILURE TO DO SO MAY RESULT IN MISSING THE FINAL EXAM.

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ACCOMMODATION AND SUPPORT STATEMENT: Rutgers University-Newark (RU-N) is committed to the creation of an inclusive and safe learning environment for all students and the University as a whole. RU-N has identified the following resources to further its mission of access and support:

For Individuals Experiencing Disability: The Office of Disability Services (ODS) works with students with medical, physical, and/or mental conditions who encounter disabling barriers to determine reasonable and appropriate accommodations for access.

Students who have completed the process with ODS and have approved accommodations are provided a Letter of Accommodation (LOA) specific to each course. To initiate accommodations for their course students must both provide the LOA and have a conversation with the course instructor about the accommodations. This should occur as early in the semester as possible. More information can be found at the RU-N ODS website. <http://ods.newark.rutgers.edu/>. Contact ODS at (973) 353-5375 or via email at ods@newark.rutgers.edu

For Individuals who are Pregnant: The Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy. Students may contact the Office of Title IX and ADA Compliance at (973) 353-5063 or via email at

TitleIX@newark.rutgers.edu.

For Short-term Absence Verification: The Office of the Dean of Students can help with absences related to religious observance, emergency or unavoidable conflict (illness, personal or family emergency, etc.). Students should refer to [University Policy 10.2.7](#) for information about expectations and responsibilities. The Office of the Dean of Students can be contacted by calling (973) 353-5063 or emailing deanofstudents@newark.rutgers.edu.

For Individuals with temporary conditions/injuries: The Office of the Dean of Students can assist students who are experiencing a temporary condition or injury (broken or sprained limbs, concussions, recovery from surgery, etc.). Students experiencing a temporary condition or injury should submit a request using the following link: <https://temporaryconditions.rutgers.edu>.

Gender or Sex-Based Discrimination or Harassment: The Office of Title IX and ADA Compliance can assist students experiencing any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking. Students can report an incident to the Office of Title IX and ADA Compliance by calling (973) 353-1906 or emailing TitleIX@newark.rutgers.edu. Incidents may also be reported by using the following link: www.tinyurl.com/RUNReportingForm. For more information, students should refer to the University's Title IX Policy and Grievance Procedures located at <https://uec.rutgers.edu/wp-content/uploads/60-1-33-current-1.pdf>

For support related to Interpersonal Violence: The Office for Violence Prevention and Victim Assistance (VPVA) can provide any student with confidential support. VPVA is a confidential resource and does not have a reporting obligation to Title IX. Students can contact the office by calling (973) 353-1918 or emailing run.vpva@rutgers.edu. VPVA also maintains a confidential text-based helpline available to students; students can text (973) 339-0734 for support. Students do not need to be a victim/survivor of violence to receive assistance; any student can receive services, information, and support.

For Crisis and Concerns: The Campus Awareness Response and Education (CARE) Team works with students in crisis to develop a plan of support plan and address personal situations that might impact their academic performance. Connect with the CARE Team by using the following link: tinyurl.com/RUNCARE or emailing careteam@rutgers.edu.

For Psychological Support (Stress, Mood, Family Issues, Substance Use concerns and other personal challenges): The Rutgers University-Newark Counseling Center provides individual therapy and support groups for students dealing with psychological issues. To schedule an appointment, email counseling@newark.rutgers.edu or call (973) 353-5805.

Additional support is available to any RU-N student through Uwill services:

- Umatch: Teletherapy with flexible scheduling, starting with a free account.
- Uhelp: Crisis support at 833-646-1526 (available 24/7/365).
- Urise: Wellness-based video collection with a free account.

Access Uwill@RUN at <https://my.rutgers.edu> using your NetID. Services are confidential and free.

For emergencies, call 911 or Rutgers University Police Department at (973) 353-5111.