



## College Calculus 1

Course number and section: Calc 1110-312

Semester and year: Fall 2024

Credit hours: 3

Instructor name: Professor John Doe

### Instructor Contact Information

Class location: Knight Campus Room KN1160

Email: [jdoe@ccri.edu](mailto:jdoe@ccri.edu)

Office: KN1160

Office Phone: 401-444-4444

Office Hours: KN1160 every Mon and Wed 3:00pm-5:00pm or by appointment

Dept. Adm. Support: Mrs. Tracy Barbeco, [trbarbeco@ccri.edu](mailto:trbarbeco@ccri.edu)

Welcome to College Calculus! I am excited that you are joining me this semester. Get ready to challenge your brain, expand your problem-solving skills, and discover the beauty and elegance of mathematics in a whole new way. This class is application based, so get ready to witness the magic of calculus in action, from predicting rocket trajectories to optimizing business models. As your instructor, my goal is to make our time as engaging and productive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to this course as we will have many group projects. I hope you can actively participate and stay engaged with your peers during class time. I will give you periodic feedback on your participation. Remember, I am here to support you.

I am committed to making course content accessible to all students. If English is not your first language and this causes you concern about the course, please speak with me.

I also want you to know that, in this class, everyone:

- matters and is empowered to learn and contribute to a safe and caring environment;
- learns about, understands, appreciates, and respects varied races, genders, physical and mental abilities, sexualities, and other forms of diversities;
- is respected and treated others with dignity and civility;
- shares responsibility for making class a positive and inclusive environment.

## Contact Policy

As your instructor for this face-to-face course, open communication is important to me even outside of our class meetings. Students can expect email responses within 24-48 hours on weekdays. I may occasionally reply more quickly, but please know responses taking longer than 48 hours are uncommon except for weekends and holidays. In urgent cases requiring quick answers, it is best to speak with me briefly after class or schedule an appointment instead of waiting for an email reply. I am available to meet before or after class at scheduled office hours or by appointment to discuss questions, concerns, or the course material. Please communicate any absences to me via email so we can coordinate make-up work.

### Email Policy

You are also welcome to reach out to me via email. I will do my best to respond within 24-48 hrs. during weekdays, however, for a faster response, just connect with me while you are on campus.

### Starfish

Occasionally, you will also see communication coming from me through Starfish. I will send kudos to you when you are doing well in the course and might connect you to student support services through Starfish.

## Course Description

Calculus 1 is a transformative journey into quantitative reasoning. Through collaborative learning and rigorous problem-solving, you will develop critical thinking skills, analytical expertise, and the ability to communicate complex mathematical concepts effectively. The course will equip you with a powerful lens through which to view the world, enabling you to analyze, understand, and shape the dynamic landscapes of change and optimization that permeate our lives.

**Course Prerequisites/Corequisites:** Score of 70 or better on all three components of the Math Readiness Assessment (exam results are valid for one year), or a C or better in MTH 108, MTH 114, MTH 115, MTH 121, MTH 131, or MRA scores 70+ in Math Fundamentals and 50-69 in Trigonometry and Geometry.

## Course Delivery Mode

### On-Campus

We meet **Mondays** and **Wednesdays** from 10:00am –11:15pm, Room KN1160

### Religious/Cultural Observance

CCRI celebrates its diverse student population and acknowledges that state and school holidays do not always align with all religious and cultural observances. If you require an excused absence

or other solution to enable you to participate in a religious or cultural observance, you may inform your professor in writing within 14 calendar days of the first day of the class. At your professor's discretion, they may work with you to provide an excused absence or other flexible solution.

## Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- Differentiate between various types of functions and their properties.
- Apply the Fundamental Theorem of Calculus to finding definite integrals.
- Differentiate various types of functions using established rules and techniques, including power rule, product rule, quotient rule, chain rule, and implicit differentiation.
- Apply differentiation to solve real-world problems involving rates of change, optimization, and motion.
- Integrate various types of functions using established techniques, including indefinite and definite integrals, U-substitution, and integration by parts.
- Solve problems involving limits, derivatives, and integrals using appropriate techniques and strategies.
- Analyze and interpret the results of calculations in the context of the problem.
- Manipulate mathematical expressions algebraically and apply mathematical notation correctly.

## General Education Skills Categories (for Gen Ed course)

[Access General Education Outcomes](#)

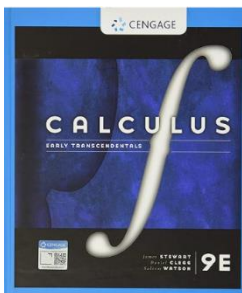
### Quantitative, Mathematical and Scientific Reasoning

- Demonstrate an understanding of and apply scientific principles, theories, and methods.
- Apply quantitative principles to solve problems and support arguments with quantitative evidence in a variety of formats (e.g., words, tables, graphs, equations, etc.)

## Required Textbooks and Materials

Textbooks can be ordered through the [CCRI Campus Store](#).

## Required textbook:



Title: Early Transcendentals, Ninth Edition, James Stewart, Daniel Clegg, Saleem Watson.

Edition: 9

Author: Stewart and Clegg

Publisher: Cengage

Link: Available through Inclusive Access in Blackboard

[Cengage Help Page](#)

## Required materials:

- [Graphing calculator](#) - any of the following, TI-83, TI-84, or TI-89. This allows you to graph functions, solve equations numerically, etc.
- [Ruler/straightedge](#) - used for drawing straight lines and graphing functions by hand. Helpful for visualizing concepts.
- [Protractor](#) - Used for measuring angles when graphing by hand.
- Grid/graph paper – Do Not buy, I will provide graph paper in class. This will help us with graphing functions and visualizing graphs, curves, derivatives, etc.

We will also use online [graphing calculator from Desmos](#)

**Library reserve and/or digital resources:** additional resources will be posted in Blackboard

**Point of view disclaimer:** The readings, class lectures, and my comments on the discussion boards will suggest a particular point of view. This perspective is my own and does not have to be yours. I encourage you to respectfully disagree with the ideas in the readings and lectures as well as the perspectives of your peers in the course. Please express yourself.

## Technical Requirements

### Email

I will communicate with you through your CCRI email account. Check your account every day to make sure you do not miss an email from an instructor. [Learn how to access your CCRI email.](#)

### Blackboard

Learning requires certain technical requirements to participate actively and be successful. At the minimum, you should have access to a computer and a stable Internet connection. In some cases, a headset with a microphone may also be required. Many courses at CCRI require certain

technical requirements to participate actively and be successful. View [Set Up Your Tech](#) to learn more about technical requirements.

Take the [Online Student Orientation](#) to learn what is expected from online students.

### **CCRI Computer Labs**

The academic computer lab is available for CCRI students and allows access to computers with the required software. Information regarding CCRI's academic computer labs is available at the following link: [academic computer labs](#)

### **MS Office 365**

Microsoft Office 365 is available for all CCRI students to download. This version of Office will be accessible if you are enrolled at CCRI. It is recommended that students [download MS 365 to their computers](#) for access to MS Word, PowerPoint, and Excel offline.

### **MS OneDrive**

[OneDrive](#), is a cloud-based storage system that lets CCRI students store, share and organize files, photos, and favorites on Windows servers, and access them from any computer with an Internet connection. You will need and know how to use a computer or mobile device with Internet access.

## **Course Expectations**

In addition to any specific expectations outlined in our syllabus document, you are responsible for following the policies set forth in the [Student Handbook](#) and [College Catalog](#).

### **Attendance/Verification of Enrollment**

Per federal financial aid regulations, CCRI is required to verify student enrollment per the dates in the [College Calendar](#).

You will be able to confirm enrollment through attending the first class session.

### **CCRI Policy on Academic Integrity**

Academic integrity is vital to an institution of higher education. The integrity of your work is essential to awarding credit and developing your academic potential. Refer to [Academic Policies](#) in the Student Handbook for more information on the expectations for academic integrity.

### **Social Media and Use of Technology**

Reasonable technology use which does not disrupt class proceedings or interfere with engagement is permitted. Students should limit checking phones or messaging to before & after class and during breaks unless there is an emergency. Devices should remain in silent mode

during lectures. Students are asked to use good judgment when posting on social media about anything related to the class and class-related discussions.

### **Attendance and Participation**

Attendance and participation in class activities are important and count towards your final grade in this class. In addition to this, you are expected to log into Blackboard weekly to complete online activities and access resources and complete homework assignments.

### **Artificial Intelligence (AI) Statement**

You are allowed to use advanced AI tools (such as ChatGPT, Midjourney, Copilot, etc.) on assignments in this course, unless otherwise noted. However, you should properly document and credit any use resources. For example, text generated using ChatGPT should include a citation such as: *“Text of your query.” (YYYY, Month DD of query). Generated using OpenAI.* <https://chat.openai.com/>

Material generated using other tools should follow a similar citation convention. Unless given permission to use those tools, each student is expected to complete each assignment without substantive assistance from others, including automated tools.

## **Grading Scale and Policies**

[Grading Information](#) and [Grade Grievance Information from](#) the Student Handbook.

### **Grading Standards and Requirements/Course Weights**

<b>Percentage</b>	<b>Letter Grade</b>
93 - 100	A
90 - 92	A-
87 - 89	B+
83 - 86	B
80 - 82	B-
77 - 79	C+
70 - 76	C
67 - 69	D+
60 - 66	D
> 60	F

Your work in this class will be evaluated as follows:

Exams (2) = 20%

Quizzes (12) = 30%

Class participation/discussions = 20%

Homework assignments (14) = 30%

**Exams:** the final exam and mid-term will be problem-based exams. You will complete exams in class during designated class sessions.

**Quizzes:** these are short knowledge checks that you will be completing every week, except for the weeks of exams, you have 3 attempts to complete them. I will use the highest score on the attempts to calculate your final grade.

**Class participation/discussions:** all discussions will take place in class. I expect you to be actively engaged with your peers and the content and fully participate during the class. If some external circumstances are preventing you from fully participating or you must miss a class, please contact me prior to class.

**Homework assignments:** homework assignments will take place on our textbook platform. There is homework every week except the final week of class.

I provide a lot of flexibility in this course. Life is unpredictable. Please let me know as soon as possible if you need to submit a course assignment late or cannot participate in-class. **Your first late submission will receive full credit, no questions asked. Every subsequent late submission will receive a 10% grade deduction for each day it is late unless you notify me, and we agree on a new timeline.**

### **Incomplete Grade**

This temporary grade designation is awarded at the end of a course. It is awarded only when a student is passing, has attended, or completed at least 75% of the course and is unable to complete the course due to extenuating circumstances (e.g., illness, death, unforeseeable accident, unavoidable circumstance).

## **Student Support Resources**

### **Services for Students with Disabilities**

Any student who feels they may need accommodation based on the impact of disability is encouraged to contact me privately to discuss your specific needs. Please also contact the office of [Disability Services for Students](#) to coordinate reasonable accommodation.

### **Advising**

Your success is the primary focus of the [Advising Center](#). As such, all matriculated students are assigned a trained, professional advisor who will provide support, guidance, and resources to help you navigate your academic journey and maximize your educational experience during your entire time at the Community College of Rhode Island. Recognizing the diverse needs of our student body, your assigned advisor will provide personalized assistance to ensure that your academic, personal, and career goals are met. The services that are available to you include but are not limited to: academic planning and course selection; transfer planning; assistance in understanding college policies and procedures; and referrals to on-and-off-campus resources. Connecting with your assigned advisor is easy. Log in to your Starfish account (include instructions here). We look forward to partnering with you in your journey towards success at the Community College of Rhode Island.

### **Counseling**

CCRI offers short term and confidential counseling to help students with mental health concerns. The Personal Counseling and Wellness Office offers students a safe environment for one-on-one appointments, assisting with a variety of concerns related to anxiety, depression, or long-standing psychological obstacles. The Personal Counseling and Wellness Office also assists with connecting students with resources and outside agencies offering long-term counseling services. For a list of mental health services on and off campus, please visit [Personal Counseling and Wellness](#).

Finally, counseling services are offered at our four main campuses (Warwick, Lincoln, Providence, and Newport) M-F 8:00 am to 4 pm. To schedule an appointment, please email us at: [counseling@ccri.edu](mailto:counseling@ccri.edu)

### **TELUS Health**

CCRI has also partnered with TELUS Health, a counseling service available to students 24/7, free of charge. TELUS Health offers virtual walk-in's and scheduled appointments, with access to professional counselors. To learn more about TELUS Health, please click the link here: [visit TELUS Health](#)

### **The Benefits Hub**



Should you encounter an unexpected crisis during the semester (i.e., securing food or housing, addressing mental health concerns, personal safety, managing a financial crisis, and/or dealing with a family emergency, etc.), please reach out to the office of [The Benefits Hub](#). If you are uncomfortable doing so on your own, please know that I can submit a referral on your behalf - just email me or schedule a meeting with me during office hours.

### **Veteran Services**

[CCRI Veteran Services Office](#) is committed to being a resource to all VA education beneficiaries. Our mission is to assist veterans, service members and dependents in the pursuit of their educational goals by maintaining up-to-date information on current programs and resources. Through a combination of experience with the educational system and contacts within the VA, we can help you with any aspect of your higher education.

### **The Tutoring Center**

We provide tutoring and academic coaching to help you achieve success. Do not wait to ask for help! Tutoring begins the second week of the semester and academic coaching appointments are available throughout the year. All services are at no cost to you. Visit [The Tutoring Center](#) or email [tutoring@ccri.edu](mailto:tutoring@ccri.edu) to learn more about our services.

### **Connect with a Tutor**

Tutors help you learn course material for a specific class by clarifying course concepts and providing practice with course materials. You do not have to be in jeopardy of failing to get help from a tutor. Click [here to watch the video directions](#) on how to schedule appointments through Starfish.

### **Partner with An Academic Coach**

Academic coaching is a personalized student-coach partnership with appointments tailored to your individual needs. A coach can help you with organizational and study strategies. One-time appointments or a series of consultations throughout the semester are available. Click [here to watch the video directions](#) on how to schedule appointments through Starfish.

### **Writing Center**

The Writing Center offers a variety of free services, including online and in-person help with prewriting, organization, thesis statements, topic sentences, research papers, revision/editing, and answers to questions. Online help at [ccri.edu/writingcenter](http://ccri.edu/writingcenter) includes:

- Zoom links for Writing Center Virtual Drop-in Tutoring Sessions
- Virtual Zoom appointments
- Email responses to questions and help with papers

- Website content, such as handouts, practice quizzes, literature analysis, PowerPoint presentations, reading resources, and information about research papers (MLA, APA, and Chicago systems)

In-person appointments can be made by contacting [writingcenter@ccri.edu](mailto:writingcenter@ccri.edu)

The Writing Center is available at three of our four campuses to assist CCRI students, faculty, and staff members with various kinds of writing and revision tasks.

### **Pear Deck Tutor**

Pear Deck Tutor (formerly TutorMe) is free private online tutoring available 24/7. It provides tutoring services to students who may not have time during the day to access one of CCRI tutors or those who need immediate assistance. Visit [Pear Deck Tutor](#) or access through the Tools option on the Blackboard main menu.

### **Starfish**

Starfish is a lifeline to various student support services provided by CCRI (advising, financial aid, tutoring, etc.). This platform creates a network of communication between faculty, students, and student services staff to support student success. Important communication will come from Starfish. Visit [Starfish](#).

### **Library**

The CCRI Library provides a welcoming environment for individual and collaborative learning. Each campus has a library with access to print and online books, journals, and other resources. Our catalog and databases can be accessed on campus or off campus. Librarians are available to assist students individually with research questions. We also work with faculty to provide specialized library instruction classes and offer [courses in information literacy and research skills](#).

### **Public Safety**

The [CCRI Campus Police Department](#) are committed to providing essential public safety and policing services to all members of our community in support of the College's educational mission. We deliver services to all community members, including visitors, with professionalism and integrity.

Important Links:

- Emergencies. - Call 401-825-2000
- [Report a Crime](#)
- [College Alerts \(RAVE\)](#)
- Request an Escort - Call 401-825-2109
- [Clery Information](#)

## **Civil Rights (Know Your Rights)**

### **Pregnant and Parenting Students**

CCRI is proud to welcome and support pregnant and parenting students on their path to success. If you need an accommodation, excused absence, or other resource or campus support to successfully complete your time at CCRI while pregnant or parenting, please contact the Title IX Coordinator via email at [titleixcoordinator@ccri.edu](mailto:titleixcoordinator@ccri.edu) or by phone at (401) 825-1126.

### **Discrimination and Harassment**

CCRI prohibits students and employees from engaging in discrimination and harassment based on any individual's race, color, creed, national or ethnic origin, gender, gender identity or expression, religion, disability, age, sexual orientation, genetic information, marital status, citizenship status, veteran status, and any other legally protected characteristic.

If you believe you have been subjected to discrimination or harassment, you can report such behavior to the Title IX Coordinator via email at [titleixcoordinator@ccri.edu](mailto:titleixcoordinator@ccri.edu), by phone at (401) 825-1126

[Nondiscrimination Policy and Complaint Procedures](#)

### **Sexual Harassment and Sexual Misconduct**

CCRI prohibits all forms of unlawful sexual harassment and sexual misconduct, which includes (but is not limited to) dating/domestic violence and stalking. If you believe you have been subjected to sexual harassment or sexual misconduct, you can report such behavior to the Title IX Coordinator via email at [titleixcoordinator@ccri.edu](mailto:titleixcoordinator@ccri.edu), by phone (401) 823-1126

[Title IX Sexual Harassment Policy and Procedures \(S-17\)](#)

[Nondiscrimination Policy and Complaint Procedures](#)

## **Additional Things to Know**

### **Printing**

A student's CCRI account is pre-loaded with a printing allowance of \$50.00 each semester to cover the cost of printing. This allowance, 1000 pages at 5 cents per page, is based upon average student use. Some students will use less, and some students will use more. Unused funds are cleared at the end of each semester. The print funds cannot be used for any purpose other than printing and are not transferable. For more information [visit CCRI Print.](#)

## **Fair Use of Copyrighted Works**

I will be using some work that is copyrighted. These works are provided to students under the Educational Fair Use Provision of Title 17 of the US Code and are not to be shared with individuals who are not enrolled in this course or used for purposes outside of the course.

## Program Instructor Statement

This syllabus is subject to change at any time. You are responsible for keeping current with changes made to this syllabus (I will notify you of the changes through a Blackboard announcement).

## Calendar of Weekly Course Topics

Week	Topic	Activities to complete (description/title)	Due Date:
Week 1	Limits and continuity  Introduction to derivatives - definition and rules	Read chapters 1 and 2 in text Complete Week 1 homework assignments Watch additional lecture videos in Blackboard Complete Week 1 Quiz	Homework assignments and quizzes will be due by the end of Sunday of each week
Week 2	Derivative rules  Implicit differentiation	Read chapters 3 and 4 in text Complete Week 2 homework assignments Watch additional lecture videos in Blackboard Complete Week 2 Quiz	
Week 3	Applications for derivatives	Read chapter 5 Complete Week 3 homework assignments Complete Week 3 Quiz	
Week 4	Extrema/optimization Curve sketching	Read chapters 9 and 10 in text Complete Week 4 homework assignments Complete Week 4 Quiz	
Week 5	Indefinite integrals Substitution method	Read chapters 11 and 12 in text Complete Week 5 homework assignments Watch additional lecture videos in Blackboard Complete Week 5 Quiz	

Week	Topic	Activities to complete (description/title)	Due Date:
Week 6	Definite integrals Fundamental Theorem of Calculus	Read chapter 13 in text Complete Week 6 homework assignments Watch additional lecture videos in Blackboard Complete Week 6 Quiz	Review materials for mid-term exam prep
Week 7	Applications of integration  Mid-term exam	No reading Complete Week 7 homework assignments Watch additional lecture videos in Blackboard  <b>Mid-term exam – Wednesday In-class</b>	
Week 8	Integration by parts Trigonometric integrals	Read chapter 15 in text Complete Week 8 homework assignments Watch additional lecture videos in Blackboard Complete Week 8 Quiz	
Week 9	Trigonometric substitution  Partial fractions Improper integrals	Read chapters 16 and 18 in text Complete Week 9 homework assignments Watch additional lecture videos in Blackboard Complete Week 9 Quiz	
Week 10	Areas and volumes	Read chapter 20 in text Complete Week 10 homework assignments Watch additional lecture videos in Blackboard Complete Week 10 Quiz	
Week 11	Sequence and series	Read chapter 24 in text Complete Week 11 homework assignments Watch additional lecture videos in Blackboard Complete Week 11 Quiz	
Week 12	Various convergence tests  Power series	Read chapters 25 and 26 in text Complete Week 12 homework assignments	

Week	Topic	Activities to complete (description/title)	Due Date:
	Taylor series	Watch additional lecture videos in Blackboard Complete Week 12 Quiz	
Week 13	Parametric equations Polar coordinates	Read chapters 27 and 28 in text Complete Week 13 homework assignments Watch additional lecture videos in Blackboard Complete Week 13 Quiz	Review materials for final exam prep
Week 14	Final Exam	<b>Final exam – Monday In-class</b>	
Week 15	Final exam review	Attendance is required	