# MATH 201: Calculus And Analytic Geom I

Location:	Evening		
Address:	Address: 1001 Rogers Street Columbia, MO 65216		
Section:	Section: 19FALLS/MATH/201/EVA		
Semester Credit Hours:	5		
Class Day(s) and Time(s):	Tuesday 5:30 PM - 9:10 PM from August 26, 2019 to December 14, 2019		
Course Information			
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#### Course Information

## **Catalog Description**

The first part of the three-part calculus series. Topics include: review of algebra and trigonometry; functions and limits; derivatives and their applications; the integrals and their applications. Students majoring in Chemistry must earn a grade of C or higher.

**Prerequisite:** Grade of C or higher in MATH 180 or a score of 26 or higher on the math portion of the ACT or 590 or above SAT score or passing grade on the Columbia College math placement exam. G.E.

#### Additional Notes

#### Special Course Requirements

Students must have access to a TI-84 Plus (or TI-83 Plus) graphing calculator for this course. The calculator I will use in class is the TI-84 Plus CE. Visualize concepts clearly and makes connections between equations, data, and graphs in full color. If you do not yet have a graphing calculator, I strongly recommend buying a TI-84 Plus CE. If you have the TI-84 Plus or TI-84 Plus silver edition, then you may have to download a math APP and it may not have some special math icons that are used later on in class. If you already have a TI-83 Plus or TI-83 Plus silver edition graphing calculator you can use that, but you will find it more difficult. The TI-83 Plus or TI-83 silver edition does not have the capability of downloading the math app used in this class.

#### Textbooks

As part of Truition<sup>SM</sup>, students will receive their course materials automatically as described below.

P Stewart. (2015). Calculus (8th). Cengage. eText

Visit https://www.ccis.edu/bookstore.aspx for details.

eText Information

If a course uses an eText, (see textbook information above) the book will be available directly in Desire2Learn (D2L) seven days before the session begins, if registered for courses prior to that date. Upon first login to VitalSource, students should use their CougarMail email address; alternate email addresses cannot be used. More information about how to use the VitalSource platform, including offline access to eTexts, can be found in D2L.

Physical Course Materials Information

Students enrolled in courses that require physical materials will receive these materials automatically at the shipping address on file with Columbia College. Delivery date of physical materials is dependent on registration date and shipping location. Please refer to confirmation emails sent from Columbia College for more details on shipping status.

**Returns:** Students who drop a class are responsible for returning any physical course materials that were shipped. To initiate a return, visit Ingram Returns to generate a pre-paid return label. Materials from dropped courses must be returned within 30-days of receipt. Failure to return physical items from a dropped course will result in a charge to the student account for all unreturned items.

**Note:** Students who opt-out of having their books provided as part of <u>Tru</u>ition<sup>SM</sup> are responsible for purchasing their own course materials.

# ➡ Technology Requirements

#### THIS IS A TECHNOLOGY-ENRICHED COURSE WHICH COMBINES IN-SEAT INSTRUCTION WITH ONLINE LEARNING.

Participation in this course will require the basic technology for all classes at Columbia College:

- A computer with reliable internet access
- A web browser
- Acrobat Reader
- Microsoft Office or another word processor such as Open Office

For more information, see technical requirements.

#### Course Learning Outcomes

- 1. Compute limits, analytically or from a graph, or determine that a limit does not exist.
- 2. Determine if functions are continuous, analytically or from a graph, and identify different types of discontinuities.
- 3. Compute derivatives of functions or determine that a derivative does not exist.
- 4. Relate the graph of a function to properties of its derivative.
- 5. Compute definite and indefinite integrals.
- 6. Relate the graph of a function to properties of its integral.
- 7. Solve applied problems using calculus.

#### Scrading 🔊

Grading Scale				
Grade	Points	Percent		
A	900 - 1000	90-100%		
В	800 - 899	80-89%		
С	700 - 799	70-79%		
D	600 - 699	60-69%		
F	0 - 599	0-59%		
Grade Weights				
Assignment Category	Points	Percent		
Take-home Quizzes	240	24%		

Examination 1	140	14%
Examination 2	140	14%
Examination 3	140	14%
Final Examination	340	34%
Total	1000	100%

# Schedule of Due Dates

Week 1		
Assignment	Points	Due
Take-Home Quiz 1	20	Take-Home Quiz 1 is due next Tuesday of the Second Week of class.
Week 2		
Assignment	Points	Due
Take-Home Quiz 2	20	Take-Home Quiz 2 is due next Tuesday of the third week of class.
Week 3		
Assignment	Points	Due
Take-Home Quiz 3	20	Take-Home Quiz 3 is due next Tuesday of the fourth week of class.
Week 4		
Assignment	Points	Due
Examination 1	140	Exam 1 is on Tuesday of Week Four
Week 5		
Assignment	Points	Due
Take-Home Quiz 4	20	Take-Home Quiz 4 is due next Tuesday of the sixth week of class.
Week 6		
Assignment	Points	Due
Take-Home Quiz 5	20	Take-Home Quiz 5 is due next Tuesday of Seventh Week of class.
Week 7		
Assignment	Points	Due
Take-Home Quiz 6	20	Take-Home Quiz 6 is due next Tuesday of the eighth Week of class.
Week 8		
Assignment	Points	Due
Examination 2	140	The Midterm Exam is on Tuesday of Week Eight.
Week 9		
Assignment	Points	Due
Take-Home Quiz 7	20	Take-Home Quiz 7 is due next Tuesday the tenth week of class.
Week 10		
Assignment	Points	Due
Take-Home Quiz 8	20	Take-Home Quiz 8 is due next Tuesday the eleventh week of class.

Assignment Week 11	Points	Due
Assignment	Points	Due
Take-Home Quiz 9	20	Take-Home Quiz 9 is due next Tuesday the 12th week of class.
Week 12		
Assignment	Points	Due
Examination 3	140	Exam 3 is on Tuesday of Week Twelve.
Week 13		
Assignment	Points	Due
Take-Home Quiz 10	20	Take-Home Quiz is due next Tuesday the fourteenth week of class.
Week 14		
Assignment	Points	Due
Take-Home Quiz 11	20	Take-Home Quiz 11 is due next Tuesday of the fifteenth week of class.
Week 15		
Assignment	Points	Due
Take-Home Quiz 12	20	Take-Home Quiz 12 is due next Tuesday of the sixteenth week of class.
Week 16		
Assignment	Points	Due
Final Examination	340	The Final Exam is Tuesday of the sixteenth week of class.
Total Points: 1000		

# C Assignment Overview

#### Assignments

Take-home Quizzes/Homework

You will be given homework quizzes each week (over the previous session's homework). It is essential you attempt all of the exercises in your assignment. Homework problems are chosen to represent the concepts that should be mastered in the course. All Take-home quiz questions will be closely modeled on assigned homework problems.

**Quizzes**: There are 12 Take-Home Quizzes given worth 20 points each. Take-home quizzes are normally due in 1 week. Please, TURN IN ALL TAKE-HOME QUIZZES ON TIME (this includes any absences). Students who fail to turn in a given assignment by the due date will receive the score of 0 points.

## Examinations

Examinations: Allowed materials on exam: Graphing calculator TI-84 plus CE (or TI-83/84+ silver edition) and 1 hand written (front and back) 3" by 5" note card. Please turn in the note card with the test at the end of the examination.

Exam 1 is on Tuesday of Week Four, incorporating Chapter One and Section 3.4.

Exam 2 is on Tuesday of Week Eight, incorporating Chapter Two.

Exam 3 is on Tuesday of Week Twelve, incorporating Chapter Three, Sections 4.1, 4.2, and Appendix E.

Final Examination: The exam duration is at least 2.0 hours, with at most 35 problems. Allowed materials on exam: Graphing calculator TI-84 plus CE (or TI-83/84+ silver edition) and 2 hand written (front and back) 3" by 5" note cards. Please turn in the note cards with the Final Exam at the end of the examination.

The **Final Exam** is on Tuesday of Week Sixteen incorporating: Chapters four and five for 85 points; and Comprehensive sections for 255 points (Exam 1 for 85 points, Exam 2 for 85 points, and Exam 3 for 85 points).

#### Additional Information/Instructions

**Note on missing or not taking an exam**: There are no makeup examinations for exams #1, #2, and #3. If you miss any one of these examinations, it will result in a loss of 140 points per exam missed. The only exception is for unexpected emergencies. These unexpected emergencies need to be brought to my attention as soon as humanly possible. I reserve the right to determine if your excuse is a true emergency or not. If you can verify the emergency and I do agree that you had a true emergency, then I will obtain your missed test score from the final exam.

Late Work: Any work done outside of class that is turned in for a grade will have a due date. Take-home quizzes are normally due in 1 week. Please, TURN IN ALL TAKE-HOME QUIZZES ON TIME (this includes any absences). Students who fail to turn in a given assignment by the due date will receive the score of 0 points.

**Note on Dropping or Withdrawing from a Course**: Once enrolled, a student is considered a member of that class until he or she officially drops or withdraws in accordance with College policy. An official drop/withdrawal takes place only when a student has submitted a Drop/Add/Withdrawal form. A failure to attend class, or advising a fellow student, staff or adjunct faculty member of an intent to withdraw from a class does not constitute official drop/withdrawal. If a student stops attending a class but does not submit the required Drop/Withdrawal form a grade of "F" will be awarded.

This is a preliminary schedule only. The instructor reserves the right to revise the course syllabus and/or tentative schedule as required by either judgment or circumstance. Changes will be announced in class and students are responsible for recording changes as announced.

**Note on notation**: 1-EOON-25 means work problems 1, 5, 9, 13, 17, 21, 25. Start with problem number 1 work Every Other Odd Number up to problem number 25. Example: 3-EOON-27 means work problems 3,7,11,15,19,23,27.

## Course Outline

Click on each week to view details about the activities scheduled for that week.

# Week 1:

Take-Home Quiz 1 Sessions 1.1, 1.2, 1.3, and Appendix D.

#### **Reading Assignments /Homework**

Functions and Limits

Section 1.1 1-EOON-77, and 67; Section 1.2 1 - 21 odds:

Section 1.3 1-EOON-65, and 67; Appendix D page A23 1-EOON-89.

# Week 2:

Take-Home Quiz 2 Sections 1.4, 1.5 and 1.6.

Reading Assignments/Homework Functions and Limits

Section 1.4 1 - 9 odds; Section 1.5 1 - 49 odds

#### Week 3:

Take-Home Quiz 3 Sections 1.7, 1.8, and 3.4.

# Reading Assignments/Homework

Functions and Limits

Section 1.7 1-43 odds.

Section 1.8 1-EOON-61 and Section 3.4 1-EOON-53.

#### Week 4:

**Examination 1** Chapter One plus Section 3.4.

Functions and Limits Exam

The exam duration is at least 1.5 hours, with at most 25 problems. Allowed materials on exam: Graphing calculator TI-84 plus CE (or TI-83/84+ silver edition) and 1 hand written (front and back) 3" by 5" note card. Please turn in the note card with the test at the end of the examination.

# Week 5:

Take-Home Quiz 4 Sections 2.1, 2.2, and 2.3.

# Reading Assignments/Homework

Derivatives

Section 2.1 1-EOON-49;

Section 2.2 1-EOON-65 Section 2.3 1-EOON-85.

# Week 6:

Take-Home Quiz 5 Sections 2.4, 2.5, and 2.7.

Reading Assignments/Homework Derivatives

Section 2.4 1-EOON-57.

Section 2.5 1-EOON-73; Section 2.7 1 - 10 all.

# Week 7:

Take-Home Quiz 6 Sections 2.6, 2.8, and 2.9.

#### **Reading Assignments/Homework**

Derivatives

Section 2.6 1-EOON-57.

Section 2.8 1-EOON-49 and Section 2.9 1-EOON-29.

# Week 8:

**Examination 2** 

Chapter Two.

Differentiation Exam and Midterm Grade

The exam duration is at least 1.5 hours, with at most 25 problems. Allowed materials on exam: Graphing calculator TI-84 plus CE (or TI-83/84+ silver edition) and 1 hand written (front and back) 3" by 5" note card. Please turn in the note card with the test at the end of the examination.

Method of Evaluation Midterm Grade: Your midterm grade is determined by exams 1 & 2, and quizzes 1 through 6.

### Week 9:

Take-Home Quiz 7 Sections 3.1, 3.2, 3.5, and 3.8.

Reading Assignments/Homework

Applications of Differentiation

Section 3.1 1-EOON-53, plus 55; Section 3.2 1-EOON-33.

Section 3.3 1-EOON-61; Section 3.5 1-EOON-53, Section 3.8 1-EOON-33.

#### Week 10:

Take-Home Quiz 8 Sections 3.7 and 3.9.

Reading Assignments/Homework

Applications of Differentiation

Section 3.7 1-EOON-77.

Section 3.9 1 - 43 odds.

# Week 11:

Take-Home Quiz 9 Sections 4.1, 4.2, and Appendix E.

#### Reading Assignments/Homework

Integrals

Appendix E Page A38 1 - 49 odds, Section 4.1 1 - 27 odds.

Section 4.2 1-19 odds.

# Week 12:

#### **Examination 3**

Chapter Three, Sections 4.1, 4.2, and Appendix E.

Applications of Derivatives Exam

The exam duration is at least 1.5 hours, with at most 25 problems. Allowed materials on exam: Graphing calculator TI-84 plus CE (or TI-83/84+ silver edition) and 1 hand written (front and back) 3" by 5" note card. Please turn in the note card with the test at the end of the examination.

# Week 13:

Take-Home Quiz 10 Sections 4.2 through 4.4.

Reading Assignments/Homework Integrals Section 4.2 21-EOON-65; Section 4.3 1-EOON-57. Section 4.4 1-EOON-57.

# Week 14:

Take-Home Quiz 11Sections 4.5 and 5.1.

Reading Assignments/Homework Integrals Section 4.5 1-EOON-81.

Section 5.1 1-EOON-45.

#### Week 15:

Take-Home Quiz 12 Sections 5.2 through 5.5.

Reading Assignments/Homework Applications of Integration

Section 5.2 1-EOON-57; Section 5.3 1-EOON-45.

Section 5.4 1-EOON-33; Section 5.5 1 - 15 odds.

#### Week 16:

Final Examination

Chapters four and five for 85 points;

and Comprehensive sections for 255 points (Exam 1 for 85 points, Exam 2 for 85 points,

and Exam 3 for 85 points).

The exam duration is at least 2.0 hours, with at most 35 problems. Allowed materials on exam: Graphing calculator TI-84 plus CE (or TI-83/84+ silver edition) and 2 hand written (front and back) 3" by 5" note cards. Please turn in the note cards with the Final Exam at the end of the examination.

# Additional Resources

Online databases are available at library.ccis.edu. You may access them using your CougarTrack login and password when prompted.

# **Technical Support**

If you have problems accessing the course or posting your assignments, contact your instructor, the Columbia College Technology Solutions Center, or the D2L Helpdesk for assistance. If you have technical problems with the VitalSource eText reader, please contact VitalSource. Contact information is also available within the online course environment.

- Columbia College Technology Solutions Center: CCHelpDesk@ccis.edu, 800-231-2391 ex. 4357
- D2L Helpdesk: helpdesk@d2l.com, 877-325-7778
- VitalSource: support@vitalsource.com, 1-855-200-4146

# **Online Tutoring**

Smarthinking is a free online tutoring service available to all Columbia College students. Smarthinking provides real-time online tutoring and homework help for Math, English, and Writing. Smarthinking also provides access to live tutorials in writing and math, as well as a full range of study resources, including writing manuals, sample problems, and study skills manuals. You can access the service from wherever you have a connection to the Internet. I encourage you to take advantage of this free service provided by the college.

Access Smarthinking through CougarTrack at Students -> Academics -> Resources.

# Columbia College Policies and Procedures

The policies set forth in the **Policy Library** are the current official versions of College policies and supersede and replace any other existing or conflicting policies covering the same subject matter. For more information on policies applicable to students, see **Student Policies**. For more information on policies applicable to the entire Columbia College community, see **College-Wide Policies**.

Students are expected to read and abide by the College policies. Policies of particular interest to students include, but not limited to the following:

- Graduate Grading Policy
- Undergraduate Grading Policy
- Registration Policy and Procedures
- Withdrawal Policy
- Alcohol and Other Drugs Policy
- Family Educational Rights and Privacy Act (FERPA)

#### Additional Policies:

# Academic Integrity and Plagiarism

Academic integrity is a cumulative process that begins with the first college learning opportunity. Students are responsible for knowing and abiding by the **Academic Integrity Policy and Procedures** and may not use ignorance of either as an excuse for academic misconduct. Additionally, all required papers may be submitted for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers may be included in the Turnitin.com reference database for the purpose of detecting plagiarism. This service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

# **Disability Resources**

If you have a disability that requires an accommodation, please speak with the instructor and consult the **Student Accessibility Resources** office. Student Accessibility Resources staff will determine appropriate accommodations and will work with your instructor to make sure these are available to you. To find additional information, see our **ADA and Section 504 Policy for** 

#### Students.

Notice of Non-Discrimination and Equal Opportunity:

The College has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of discrimination, harassment, or retaliation on the basis of protected status, can report their experiences to a College official. For more information, see our Non-Discrimination and Equal Opportunity Policy and Complaint Resolution Procedure.

## Title IX and Sexual Misconduct

The College is committed to addressing the issues of discrimination, harassment and sexual misconduct in the educational and workplace landscape and will continue to modify policies, procedures and prevention efforts as needed. For more information, see the College's **Title IX and Sexual Misconduct Policy**.

# Course Policies and Procedures:

# Attendance Policy

Columbia College students are expected to attend all classes and laboratory periods for which they are enrolled.

For classes with an online component, attendance for a week includes submitting any assigned online activity. Assigned activities are scheduled prior to the course commencing. Assigned activity due dates are subject to change based on actual course progression and will be adjusted as necessary. Attendance for the week is based upon the date work is submitted. A class week is defined as the period of time between Monday and Sunday (except for week 8, when the work and the course will end at 11:59 PM Central Time on Saturday.) The course and system deadlines are based on the Central Time Zone.

Students are directly responsible to instructors for class attendance and work missed during an absence for any cause. If absences jeopardize progress in a course, the College reserves the right to drop or withdraw students from classes. For additional information, see the Administrative Withdrawal for Non-Attendance heading in the **Withdrawal Policy**.

## CougarMail

All students are provided a CougarMail account when they enroll in classes at Columbia College. You are responsible for monitoring email from that account for important messages from the College and from your instructor.

Students should use email for private messages to the instructor and other students. The class discussions are for public messages so the class members can each see what others have to say about any given topic and respond.

#### Late Assignment Policy

All classes rely on participation and a commitment to your instructor and your classmates to regularly engage in the reading, discussion and writing assignments. You must keep up with the schedule of reading and writing to successfully complete the class.

No late assignments will be accepted without the prior approval of the instructor.

Acceptance of a late assignment is at the discretion of the instructor.

Make-up examinations may be authorized for students who miss regularly-scheduled examinations due to circumstances beyond their control. Make-up examinations must be administered as soon as possible after the regularly scheduled examination period and must be administered in a controlled environment.

# Student Conduct

All Columbia College students, whether enrolled in a land-based or online course, are responsible for behaving in a manner consistent with Columbia College's **Student Conduct Code** and **Acceptable Computing Use Policy**. Students violating these policies or any other College policy will be referred to the office of Student Affairs and/or the office of Academic Affairs for possible disciplinary action. The Student Code of Conduct, the **Student Behavioral Misconduct Policy and Procedures**, and the Acceptable Computing Use Policy can be found in the Policy Library at **ccis.edu/policies**. The adjunct faculty member maintains the right to manage a positive learning environment all students must adhere to the conventions of online etiquette when enrolled in a course with an online component.