



The mission of Concord University is to provide quality, liberal arts based education, to foster scholarly and creative activities and to serve the regional community (<http://www.concord.edu/academics/>).

Math 253, Calculus with Analytic Geometry I

20197, Section 01

Semester Taught: Spring 2019

Professor: Mrs. Katherine Bowe

Credit Hours: 4

Office Location: Science 100E

Prerequisites: Math 104 and Math 103

Office Hours: MF 11:30-12, TR 7:30-8, 11:30-12

Course Time: MTRF 12:00-12:50

Email: kbowe@concord.edu

Building and Room Number: Science 105

Phone: 384-5387

Office Fax: 384-6225

College/Department Website: <http://math.concord.edu>

Course Description/Rationale: An introduction to differential calculus, including the necessary techniques of inequalities, sets, relations, and analytic geometry. Limits, continuity, and differentiation of algebraic functions. Some applications of differentiation.

Course Management System: MyOpenMath

Hardware/Software Needed: The student will need access to a computer with an internet connection to be able to access the resources and homework on MyOpenMath. The student may use a cheap scientific calculator (For example a Texas Instruments TI-30X-A). Cell phones and calculators which can do symbolic mathematics or graphing are not allowed.

Text requirements: *Calculus* by James Stewart, 6th edition, ISBN: 0-495-01160-6
Supplemental Text: *Calculus, Volume 1* from OpenStax

Concord University Educational Goal(s): Addresses, at least in part, the following CU goals

Skills 1, 2*, 4, 6; Knowledge 4, 7; Attitudes 7

National Standards:

NCTM 1a. A.5.1, A.5.2, A.5.3, A.5.4, A.5.5, B.5.1, B.5.2, B.5.3, 2c

Specific Learning Outcomes: Limits, continuity, differentiation, applications of derivatives, and an introduction to integration.

Course Requirements: Mastery of the following topics:

- Foundational algebra review
 - Review of Basic Properties of Functions
- Limits
 - Tangent Line to a Curve and Relationship of Slope to Velocity
 - Informal Definition of Limit and Computational Estimation of Limits
 - Exact Computation of Limits via Rules
 - Precise Definition of a Limit
 - Continuity and Implications of Continuity
- Derivatives
 - Derivatives and Their Relationship to Rates of Change
 - Derivative as a Function
 - Differentiation Formulas: Sum Rule, Product Rule, Quotient Rule
 - Derivatives of Trigonometric Functions
 - Chain Rule
 - Implicit Differentiation
 - Scientific Applications of Rates of Change
 - Differentials and Linear Approximation
- Applications of differentiation
 - Maximal and Minimal Values of Functions
 - Rolle’s Theorem
 - Mean Value Theorem
 - Derivatives and Shape of a Graph
 - Limits at Infinity and Horizontal Asymptotes
 - Optimization Problems
 - Newton’s Method
 - Antiderivatives
- Integration
 - Area Under a Curve and the Definite Integral
 - Fundamental Theorem of Calculus
 - Indefinite Integrals
 - Substitution Rule for Evaluating Integrals

Grading Policy and Scale, Make-up Policy, Late Work:

Evaluation:

Homework Assignments	15%
Attendance/In Class Activities	10%
Test 1	15%
Test 2	15%
Test 3	15%
Test 4	15%
Final	15%
Review Assignments	Extra Credit!

Grading Scale:

90-100	A
80-89	B
70-79	C
60-69	D
< 60	F

Grades are available on MyOpenMath. I will try to keep your averages current by updating them regularly. However, I am always happy to answer any questions you have regarding grades.

Homework Assignments:

Homework will be due online in MyOpenMath every Tuesday and Friday at 11:59pm during the semester.

Late Policy: If you miss class you need to contact me immediately by email. Do not wait until the next class session. You have 6 free “latepasses” to use in MyOpenMath. The latepasses allow you to request a 48 hour extension from the due date directly in the system (so you can automatically do it without having to wait for me). You may use the latepasses however you would like, you can use them on 6 different homework assignments or all 6 latepasses on a single assignment (or any other combination). **If you intend to use a latepass, do not open the assignment once it’s in review mode until after the latepass has been applied.** All homework has a final due date of Sunday, May 5 at 11:59pm. If you run out of latepasses, further extensions will be considered on a case-by-case basis, with a penalty.

Attendance/In Class Activities:

Attendance is simply showing up to class on time and staying the whole time. Participation is being involved in the class. It is expected that you will be present, that you will take notes, and that you will work on problems given in class. It is expected that you will not arrive late or leave early (if there is some necessary situation, please talk to me beforehand), you will not sleep during class, and you will not be glued to your phone or other device for the duration of class.

Occasionally, I will ask you to turn in a problem or activity we do in class for a grade. This allows me to see that you are participating actively in class and allows me to give feedback so you better understand my expectations before the test.

I will dock attendance points if you are in attendance but do not participate or are habitually late. Since the in class activities are done in-class, it cannot be made up if you miss class, but I do give leniency to excused absences (see the “Attendance” section below).

Tests:

We will be aiming for four tests given throughout the semester as well as a comprehensive final at the end of the semester. For each test and the final you may use a single 4x6 notecard for reference as well as a scientific calculator.

Schedule: The tests are tentatively scheduled for February 7, February 28, April 4, and April 25. The retake is tentatively scheduled for May 2.

Make-up Policy: **Late tests will not be given unless the student can provide written documentation** of an excused absence (doctor’s visit, funeral, school event, etc.). Also, **all make-up tests must be taken before the graded exams are passed back** to the class, generally the next class session. Students should contact the instructor before the test or as soon as possible to schedule a make-up test. Do not wait until the next class session to contact me. No exceptions will be considered. Grades for the test will be provided on Moodle as soon as the tests are graded.

On test day: You may not use a cell phone (or other electronic device) as a calculator during a test. You may not use cell phones during the test. You may not use a graphing calculator on a test (you may only use basic or scientific). Calculators may not be shared during tests. Headphones may not be used during

tests. All hats will need to be turned backwards so the brim is not in front of your face. Please keep the aisles clear during tests so I can easily navigate the room.

Retake: The last week of class I will allow you to retake one of the four tests of your choice (with different problems of course). The new score will replace your old score for that test. The new score will include any extra credit points that you have toward that test.

Final: We will have a comprehensive final. Because of the odd time of the course, there are three final slots the final could be in, Tuesday, May 7, or Wednesday, May 8, or Thursday, May 9 at 11:30-1:45. We will vote in class toward the end of the semester on which slot to use.

Extra Credit:

For each test there will be a review assignment in MyOpenMath. By working problems on this assignment, you can earn extra credit for each test. The amount of credit will be determined by what score you get on this assignment. The credit will be given as follows:

100%	+10pts
90-99%	+9pts
80-89%	+8pts
70-79%	+7pts
60-69%	+6pts
50-59%	+5pts

40-49%	+4pts
30-39%	+3pts
20-29%	+2pts
10-19%	+1pt
0-10%	+0pts

Latepasses will not be available for the extra credit assignments. The review assignments will be due at the beginning of class time on test day.

Course Timeline:

Homework: Homework will generally be due every Tuesday and Friday at 11:59 pm throughout the semester.

Tests: The tests are tentatively scheduled for February 7, February 28, April 4, and April 25. The retake is tentatively scheduled for May 2.

Final: Because of the odd time of the course, there are three final slots the final could be in, Tuesday, May 7, or Wednesday, May 8, or Thursday, May 9 at 11:30-1:45. We will vote in class toward the end of the semester on which slot to use.

Extra Credit: Extra credit review assignments will be due at the beginning of class time on test days.

Accessibility/Accommodations:

Concord University is committed to responding to the needs of students with disabilities as defined by the Americans with Disabilities Act. Please inform your instructor at the beginning of the class semester if you have a disability and are requesting accommodations. It is your responsibility to self-disclose that you are requesting accommodations. The University and instructor will provide you with a reasonable accommodation. You should register with CU's Disability Services Office, located in the Athens campus Jerry and Jean Beasley Student Center, Bottom Floor, across from the Campus Post Office. The Disability Services Office phone is 304-384-6086 or you can email the Director, Nancy Ellison, at nellison@concord.edu for assistance.

Academic Dishonesty

Academic dishonesty is morally unacceptable as well as destructive to the learning and teaching atmosphere. Academic dishonesty includes the giving or receiving of improper help on examinations or assignments, falsifying documents, and plagiarism (the act of stealing and using, as one's own, the ideas or the expression of the ideas of another). Such dishonesty can lead to a variety of penalties — including but not limited to failure of assignment, failure of course, loss of institutional privileges, or dismissal from the University. (See University Catalog Academic Policies and Procedures.)

Concord University Honor Code

A Concord University Honor Code was approved by students, staff, faculty, administration, and the CU Board of Governors. The Code states:

"As a member of the Concord University Community I will act with honesty and integrity in accordance with our fundamental principles and I will respect myself and others while challenging them to do the same."

The Honor Code is intended to unite the Concord community behind a culture of honesty, integrity, and civility.

Class/Online Attendance Policy

Regular class attendance is part of a student's academic obligation at Concord. Irregular attendance may affect academic performance adversely and is detrimental to the atmosphere of a class. (See University Catalog Academic Policies and Procedures.)

Emergency Alert System

In an effort to increase safety and security on our campus, Concord University encourages everyone to register for instant text message alerts. Alerts will only be used for security and safety notices. All students, faculty, and staff are eligible to receive text message alerts on their cell phones or email alerts. Please contact the IT Help Desk for further assistance (304-384-5291).

Emergency Information

Emergency/courtesy telephones are located at the main entrance of each residence hall and at various other locations on campus. Emergency telephones can be identified by the flashing blue light and will provide the user with a direct link to Public Safety at the press of a button. To report an on-campus emergency, call 304-384-5357 or 911. The Office of Public Safety is located on the bottom floor of the Rahall Technology Center. For further emergency information go to: <http://www.concord.edu/administration/office-public-safety>.

Inclement Weather Policy

As a general policy, the University will remain in normal operations during adverse weather conditions. In the event of severe weather conditions, the following may occur:

University Closure

No students or employees are to report.

Classes Cancelled

Students do NOT report BUT employees are expected to report to work at their normal time.

Operating on an Inclement Weather Delay

Under this schedule, all 8 a.m. classes will start at 10 a.m. Students and faculty will follow the Inclement Weather Schedule. (See <http://www.concord.edu/emergency-alerts> for Athens/Beckley Inclement Weather Schedules.)

**Announcements invoking the late schedule or other options referenced above are aired on area radio and television stations and are sent as text and email messages to those enrolled for this service.*

Student Conduct

In classrooms, online, laboratories, and during any activities that are part of course requirements, students are expected to observe reasonable rules of conduct.

Sexual Harassment & Assault

Federal law, Title IX, and Concord University policy prohibits discrimination, harassment, and violence based on sex and gender (Including sexual harassment, sexual assault, domestic/dating violence, stalking, sexual exploitation, and retaliation). If you or someone you know has been harassed or assaulted, you can receive confidential counseling support through the Concord University Counseling Center (304-384-5290). Alleged Violations can be reported non-confidentially to the Concord University Title IX Coordinator at 304-384-6327 or titleix@concord.edu. Reports to Campus Security can be made at (304-384-5357). As an employee at Concord University, I am a mandatory reporter which means I must report any sexual misconduct I am made aware of. This includes verbal or written (such as in an assignment) disclosures of sexual harassment or sexual assault.

Technology Services

Contact the CU Help Desk at extension 5291 from campus or 304-384-5291 off campus. You may also e-mail cuhelpdesk@concord.edu.

Syllabus Disclaimer

"This syllabus is subject to change based on the needs of the class. Please check it regularly."

Miscellaneous:

Course Policies:

Attendance: Attendance will be taken each class period. It is vitally important to attend class faithfully. Please let me know if you miss class for a valid reason so I can excuse your absence. If possible do not wait until the next class to contact me. If you arrive late to class it is your responsibility to ensure I have you down as present and not absent. I will not consider any appeals after one week from the date of class. Inclement Weather conditions will be taken into consideration in regard to attendance. Contact me as soon as possible if absence occurs due to weather.

Expectations: Attendance is simply showing up to class on time and staying the whole time. Participation is being involved in the class. It is expected that you will be present, that you will take notes, and that you will work on problems given in class. It is expected that you will not arrive late or leave

early (if there is some necessary situation, please talk to me beforehand), you will not sleep during class, and you will not be glued to your phone or other device for the duration of class.

It is expected that you will treat your fellow students, as well as me, respectfully. This includes being involved with group work, not arriving to class late or leaving early, and not being disruptive in class. Continued disruption may result in you being asked to leave the classroom.

Inclement Weather: This is an odd timed class, so when to meet when we're on inclement weather schedule is unclear. We will plan to meet from 1:00-1:40 on days when we have inclement weather. This should still fit okay in the schedule of TR classes.

Calculators: You may not use a cell phone (or other electronic device) as a calculator during a test. You may not use cell phones during the test. **You may not use a graphing calculator** on a test (you may only use basic or scientific). Calculators may not be shared during tests.

Tutoring: Going to a tutor is encouraged.

The math department: Tutors are available in Science 108, a schedule will be provided once the semester starts.

The Academic Success Center & Student Support Services: Go to <http://hub.concord.edu/academicsuccess/> and click on drop-in tutoring for their schedule. Also, in that link is SMARTHINKING, which is an online tutoring resource that is available 24/7 (I do not give extra credit for SMARTHINKING).

If possible, I would go to the math department first, there you will be helped by students who have had many math classes and therefore much practice with the math you're doing. The tutors who work for the academic success center only needed to achieve a certain grade in this class to be a tutor. In many cases this is fine, but sometimes in order to help someone else, a bit more mathematical experience is required. SMARTHINKING is an option, but I would only use it as a last resort. Only a few of my students have ever tried it, with mixed results (if you try it, I would be interested to hear about your experience).

Contact Policy: I will use e-mail for class announcements. Please check your Concord e-mail regularly. You are responsible for all information I send out by email. "I didn't get it" isn't an excuse.