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# Calculus I

MAT 205 – Wesleyan College

Syllabus

Summer 2024, May 13 - June 14

## Professor Contact Information

**Professor:** TBA

**Office Hours:** by appointment

**Contact Information:** TBA

**Text/ISBN:** *“Calculus”*, 10th Edition by Larson. Coverage: Chapters 1-6, Select Sections

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## Policies and Procedures

### Course Goals

Algebraic and trigonometric functions and their graphs, the concepts of limit and continuity, theory and techniques of differentiation, and applications of differentiation, introduction to the theory and techniques of integration.

### Prerequisites

MAT 140 or equivalent

### Credit Hours

3

### Participation and Grading

Each week, you are required to watch the videos covering each section and complete the two homework assignment specific to those sections. The homework assignments will be posted on MyOpenMath, a free online homework system. MyOpenMath will be integrated with Moodle so that you can access each homework in Moodle. Homeworks will be graded for correctness and are due Sunday at 11:59 AM (Beijing Time) for weeks 1-4 and Thursday 11:59 AM (Beijing Time) for week 5.

Each week (except for Week 5), you will have two quizzes to complete. On week 5 there will just be one quiz. The quizzes will be posted on Moodle and graded for correctness. You will work out your solutions on blank printer paper. You must clearly label each problem and it is preferred that you work each problem on a separate sheet of paper. Once you have finished the quiz, you will upload your solutions as a single PDF to the appropriate place on



Moodle. The quizzes are due Sunday at 11:59 AM (Beijing Time) for weeks 1-4 and Thursday 11:59 AM (Beijing Time) for week 5. Solutions will be posted after the due date.

There will be two live Q&A meetings during the semester. These will happen in week 2 and week 4 and will be focused on answering questions about the material in preparation for the exams. Attendance at both meetings is expected and will determine your participation grade. If you are unable to attend, then a makeup assignment will be available so that you can still receive participation credit.

At the end of weeks 2 and 4, there will be an exam covering the previous two weeks' material. These exams will become available on Monday at 8:00 AM (Beijing Time) and due by Monday 11:59 AM (Beijing Time). The problems on the exams will be similar to the ones given on the quizzes and on homework, so make sure you thoroughly understand all assignments before beginning each exam. At the end of week 5, there will be a cumulative final exam which will open on Friday at 8:00 AM (Beijing Time) of Week 5 and is due by Friday at 11:59 AM (Beijing Time).

All exams will be graded based on accuracy. Similar to the quizzes, you will work out each problem on printer paper and upload to Moodle as a single PDF. While taking the test, you are allowed to consult your textbook and the class notes, but you are **not** allowed to use any other outside source. Be sure to provide thorough justification of each solution so that partial credit can be applied if necessary. Failure to justify each answer appropriately will result in no credit.

Your grade in this course will be determined by your performance in the following categories:

<b>Assignments</b>	<b>Percentage</b>
Participation	5%
Homework (MyOpenMath)	10%
Quizzes (Top 8 out of 9)	20%
Exam 1 (Weeks 1 and 2)	20%
Exam 2 (Weeks 3 and 4)	20%
Final Exam (Cumulative)	25%
<b>Total</b>	<b>100%</b>

### **Grading Scale:**

The grading scale in the class will be as follows:

A=90-100%

B=80-89%

C=70-79%

D=60-69%

F=59% And Below

You may track your running point total throughout the term via our course site. Please be aware, however, that the course grade you see in the site will reflect only assignments and activities you have already completed and that your professor has graded.



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### **Late Policy:**

Quizzes and Exams will not be accepted late, so be sure to plan accordingly. Homework will be accepted late with a 10% penalty each day late. This penalty only applies to questions that you submit after the deadline

### **Academic Integrity**

Wesleyan's College expects student to show integrity in all of their work. Cheating, plagiarism, unauthorized collaboration, inventing or falsifying information, turning in work for more than one class without authorization, or helping someone else are all violations of the Honor Code and are not tolerated. Any of these forms of cheating will not be tolerated and will be grounds for a grade of zero on the exam or assignment and a grade of F for the course, in addition to any penalties imposed by the Provost.

### **Civility in the Academic Community**

Students, faculty, and staff are expected to treat one another with respect in all interactions both during class meetings and on the Moodle course site. Rude, disruptive and/or disrespectful behaviors as determined by a faculty member interfere with other students' rights and with the professor's ability to teach. Therefore, any student exhibiting unacceptable behaviors during a class meeting or Moodle collaborative activity will be asked to leave and will be counted absent for that class period or activity. Failure to cooperate with this process will result in disciplinary action that may include withdrawal from the class or dismissal from the College. Violations will be reported to the Provost.

### **Disabilities Statement**

Wesleyan College is committed to equal education, full participation and access to facilities for all students. Any student who requires reasonable academic accommodations, use of auxiliary aids or facility access for a class must first register with Disability Resources by contacting Jill Amos, Director of Disability and Advocacy Services, [jamos@wesleyancollege.edu](mailto:jamos@wesleyancollege.edu) or (478) 757-5219. If reasonable accommodations are established, students should request Accommodation Letters from Disability Resources then schedule an appointment to meet with the professor to determine how the accommodations will be implemented for each class as early in the semester as possible. Accommodations require advance notice to implement and will not be retroactively administered for the semester. Accommodations that decrease the integrity of a course will not be approved.

### **Privacy in Teaching & Learning Spaces**

In order to promote an environment in which ideas may be freely expressed, the interior offices; in-person and virtual classrooms; and Moodle course sites at Wesleyan are private spaces. The unauthorized creation of photographic images, audio recordings, or video recordings of students or faculty in these spaces is considered to be disruptive behavior which may result in a student's removal from class according to the professor's discretion. The distribution of unauthorized images or recordings, or of class meeting recordings shared by a professor for instructional purposes, without the express written permission of the College is strictly prohibited and is subject to disciplinary action by the Provost of the College.

### **Potential Changes to Course Schedule**

The following week-to-week schedule is a general plan for the course. Deviations may be necessary and will be announced in advance via announcement and/or e-mail. Students should check their course site announcements and emails at least once every twenty-four hours throughout the term to watch for updates regarding this course.



## Course Schedule

Week	Section
1	1.2: Finding Limits Graphically and Numerically
	1.3: Evaluating Limits Analytically
	1.4: Continuity and One-Sided Limits
	1.5: Infinite Limits
	2.1: The Derivative and the Tangent Line Problem
2	2.2: Basic Differentiation Rules and Rates of Change
	2.3: Product and Quotient Rules and Higher-Order Derivatives
	2.4: The Chain Rule
	2.5: Implicit Differentiation
	2.6: Related Rates
	3.1: Extrema on an Interval
	3.2: Rolle's Theorem and the Mean Value Theorem
	<b>EXAM 1 (Weeks 1 - 2)</b>
3	3.3: Increasing and Decreasing Functions and the First Derivative Test
	3.4: Concavity and the Second Derivative Test
	3.5: Limits at Infinity
	3.6: A Summary of Curve Sketching
	3.7: Optimization Problems
4	4.1: Antiderivative and Indefinite Integration
	4.2: Area
	4.3: Riemann Sums and Definite Integrals
	4.4: The Fundamental Theorem of Calculus
	4.5: Integration by Substitution
	5.1: The Natural Logarithmic Function: Differentiation
	5.2: The Natural Logarithmic Function: Integration
	<b>EXAM 2 (Weeks 3 - 4)</b>
5	5.4: Exponential Functions: Differentiation and Integration
	5.5: Bases Other than $e$ and Applications
	6.2: Growth and Decay
	8.7: Indeterminate Form and L'Hopital's Rule
	<b>FINAL EXAM (Cumulative)</b>