Math 2141Q Section 2 Fall 2019
Maxim Derevyagin

Office: MONT 310
Email: maksym.derevyagin@uconn.edu
Web Page: HuskyCT site (please, check the Husky CT web page of this course regularly)
Office Hours: Monday, Tuesday, and Wednesday: 3pm — 4pm

Grading: Your grading will be as follows:

Category	Total Percentage
Homework	20%
Quizzes	20%
Midterm Exams	40%
Final Exam	20%

Textbook: The textbook for this course is *Calculus, Volume I*, second edition, by Thomas M. Apostol. Because this course moves very quickly and approaches mathematics from a more sophisticated perspective than you are probably used to, *it is extremely important that you read the textbook as we go along.* Many of the ideas in this course require time and effort to grapple with before they really sink in. Just listening passively to the lectures will not be enough to master this material.

Homework: There will be regular homework assignments for this course typically collected on Friday. Many of the problems assigned will involve proving why something is true. It is important that you express your mathematical thoughts in clear and complete sentences. Of course, you will make mathematical calculations and use mathematical notation, but often the sentences explaining the reasoning connecting the steps in your proof are the most important. You should write your explanations as though they were for another student in the class. You should also work through your mathematical thoughts on scratch paper first and rewrite the results in a clean and concise way when you hand it in. You will be graded both on the correctness of your solution and on your mathematical writing.

Quizzes: Quizzes are on Fridays. There will be 5 in-class quizzes. The lowest quiz score will be dropped and tentative quiz dates are **September 6, September 20, October 18, November 1, and November 22.**

Midterm Exams: The first midterm exam is on **Monday, October 7** and the second midterm exam is on **Friday, November 8**. When we get close to the time of each exam, I will try to be very clear about what material is covered and what types of problems you can expect to see on the exam.

Calculators: You are welcome to use a calculator for this course, including on the exams. However, I think it is unlikely that a calculator will be of much help in this course.

Office Hours and Additional Help: This course moves quickly and it is important that you don't get behind. I strongly recommend visiting me in office hours if you find yourself having difficulties with the material. It is much easier for us to discuss a section of the textbook to keep you caught up than to try to discuss an entire chapter.

Student Responsibilities and Resources: As a student enrolled in this class you must be aware that

- You should attend all class meetings and you are responsible for the material that you missed due to absences. So, it is always a good idea to know a couple of your classmates.
- Cell phones, laptops, and other electronic devices that might cause disruption should be turned off or silenced before class begins.
- Electronic devices including calculators will NOT be allowed during exams and quizzes.

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies and resources (https://provost.uconn.edu/faculty-and-staff-resources/syllabi-references/), which include :

- The Student Code
- Academic Integrity
- Resources on Avoiding Cheating and Plagiarism
- Statement on Absences from Class Due to Religious Observances and Extra-Curricular Activities
- Policy Against Discrimination, Harassment and Related Interpersonal Violence

Students with Disabilities: The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or http://csd.uconn.edu/.

Date	Section
Mon 8/26	Set theory, I.2
Wed 8/28	Set theory and Number systems, I.2 and I.3
Fri 8/30	Number systems, I.3
Mon 9/2	No class (Labor Day)
Wed 9/4	Induction, I.4
Fri 9/6	Sum notation, absolute values, triangle inequality, I.4
Mon 9/9	Functions and areas, step functions 1.1-1.11
Wed 9/11	Integration of step functions, 1.12-1.15
Fri 9/13	Integration of more general functions, 1.16-1.19
Mon 9/16	Integration of bounded monotonic functions, 1.20-1.23
Wed 9/18	Properties of integral, integration of polynomials, 1.24-1.27
Fri 9/20	Area between curves, 2.1-2.4
Mon 9/23	Trig functions, 2.5-2.8
Wed 9/25	Polar coordinates, 2.9-2.11
Fri 9/27	Applications of integration, 2.12-2.17
Mon 9/30	Indefinite integrals, 2.18-2.19
Wed 10/2	Definition of limit, 3.1-3.2
Fri 10/4	Definition of continuity, examples and properties, 3.3-3.6
Mon 10/7	**Midterm Exam**
Wed 10/9	Compositions, Intermediate Value Theorem, 3.7-3.11
Fri 10/11	Inversion, 3.12-3.15
Mon 10/14	Extreme Value Theorem for Integrals, 3.16-3.17
Wed 10/16	Continuous functions and Mean Value Theorem for Integrals, 3.18-3.20
Fri 10/18	Definition of derivative and examples, 4.1-4.4
Mon 10/21	Algebra of derivatives, geometric interpretation, 4.5-4.9
Wed 10/23	Chain rule, 4.10
Fri 10/25	Implicit differentiation and related rates, 4.11-4.12
Mon 10/28	Extreme values, Mean Value Theorem, 4.13-4.15
Wed 10/30	Geometric properties of functions, 4.16-4.19
Fri 11/1	Fundamental Theorems of Calculus, 5.1-5.6
Mon 11/4	Integration by substitution, 5.7-5.8
Wed 11/6	Catch up
Fri 11/8	**Midterm Exam**
Mon 11/11	Integration by parts, 5.9-5.10
Wed 11/13	Log functions, 6.1-6.7
Fri 11/15	Logarithmic differentiation and polynomial approximations, 6.8-6.11
Mon 11/18	Exponential functions, 6.12-6.18
Wed 11/20	Inverse trig functions, 6.20-6.22
Fri 11/22	Partial fractions, 6.23
Mon 12/2	Transforming integrals into rational functions, 6.24-6.25
Wed 12/4	Review of integration
Fri 12/6	Catch up