

**MAT 121: Calculus A, Section 701**  
Fall 2019, MWF 10:20–11:10 AM, Corey Union 204

**Contact Information:**

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T 12:00 - 12:45 PM

**Textbook** *Calculus & Its Applications*, Goldstein, Lay, Schneider & Asmar,  
14th Edition, ISBN: 9780134840413

**Prerequisites** Math 114 with a grade of C- or better or four years of high school mathematics.

You are welcome to drop by my office anytime or schedule an appointment outside of my listed office hours. The best way to schedule an appointment is via e-mail. I will do my best to respond to e-mails in a timely fashion, however **I am not guaranteed to respond to any e-mails sent after 5:00 PM on weekdays or on the weekends until the next business day.**

**Course Goals and Description:** This course seeks to give students a solid understanding of the basic concepts of single variable calculus such as limits, continuity, and differentiation. The major topics throughout the course are a review of functions, limits, continuity, derivatives, applications of the derivative such as min/max problems and related rates, and exponential and logarithmic functions.

**Course Website:** This course will be using Blackboard. Useful links, announcement, and other files and information will be posted there. Students' grades will also be updated periodically via Blackboard. In addition, this course will use MyMathLab for some homework assignments. Instructions for using MyMathLab will be posted on Blackboard.

**Participation:** A major part of the learning experience is interacting with the material and fellow classmates. Students will frequently be doing work in-class in small groups, and as such **attendance is required**. To earn full participation points, students will be expected to attend class, participate in group discussions, and actively engage in classroom activities. **Use of any mobile device during class work or group activities is not allowed and is grounds for losing participation points.**

**Online Homework:** There will be weekly online homework assignments that students will complete using MyMathLab. These assignments will typically be due Wednesday mornings at 6:00 AM. Instructions for accessing MyMathLab are available on Blackboard. The two lowest scores will be dropped. **No late homework will be accepted under any circumstances.**

**Written Homework:** One of the more important aspects of mathematics is being able to convey ideas, methods, and conclusions in an efficient and coherent manner. To this end, there will be weekly written assignments which will typically be due at the start of class on Fridays. The assignments will consist of 3-4 problems similar to problems from the textbook. To earn full points, students must submit organized responses which show all work and use complete sentences where appropriate. The three lowest scores will be dropped. **Late homework will not be accepted under any circumstances.**

**Exams:** There will be three in-class exams and a cumulative final exam. The *tentative* dates for the exams are **September 20th, October 19th, and November 15th**. The date of the final will be announced closer to the end of the semester and posted on Blackboard. Students may use scientific calculators on the exams, however **no mobile devices, graphing calculators, or calculators with a computer algebra system (CAS) are allowed**. Make-up exams will be given only in extreme circumstances (e.g. medical emergencies), with proper documentation required.

## Grading:

Participation	50
Online Homework	150
Written Homework	100
Three in-class Exams    100 each	300
+ Final Exam	150
Total	750

**Grade Scale** Here are the cutoff point totals and corresponding percentages to guarantee various final grades.

A	697	93%	B+	652	87%	C+	577	77%	D+	502	67%
			B	622	83%	C	547	70%	D	472	63%
A-	675	90%	B-	600	80%	C-	525	68%	D-	450	60%

Students with final grades below 450 points can expect to receive an E in the course.

**How To Succeed:** In order to do well in the course, one should come to each class period ready to engage in class discussions and participate in group work with their peers. I suggest reading the textbook before class to get a basic idea of the topic for the day. A typical class will consist of a brief lecture where the basic ideas of the day's concepts are presented, as well as an example or two. Then, students will interact with material in small groups to deepen their understanding and get some practice with the material in an environment where they can ask each other or the instructor questions. Learning is then solidified while completing the homework assignments for the week.

**Getting Help:** First and foremost, **ask questions!** If you are confused in class, then others will be too and will likely have the same questions as you. Asking questions is a crucial part of the learning process. If you find yourself struggling with a concept or need assistance, the best way to do this is by talking to the instructor during their office hours. Study groups are also strongly encouraged. Consider creating an email thread or group chat with other students in your class.

**Cell Phones and Mobile Devices:** Learning mathematics requires active engagement, and as such, you should not be using cell phones during class for any reason. If you have to take an emergency call, please leave the room as to not distract others. You may not use your cell phone or any other device with an internet connection for a calculator, and smart watches should be removed during exams. You may take notes on a tablet or laptop if you wish, but make sure it is not a distraction to others. **Using a mobile device during class for non-academic purposes will result in a loss of participation points.**

**Makeups:** Makeup exams may **only** be given in extreme circumstances or for university sanctioned reasons. Be prepared to provide supporting documentation. If your conflict involves an issue that you knew about ahead of time, then you are required to discuss it with me before the scheduled exam. If we have not worked out a solution ahead of time receiving a makeup will be unlikely.

**Academic Integrity Statement:** All students are expected to uphold academic integrity standards. Plagiarism is defined as taking the ideas of others and using them as one's own without due credit. Students who cheat in examinations, course assignments, or plagiarize in this course may be disciplined in accordance with university rules and regulations. (College Handbook, Chapter 340)

**Disability Statement:** As part of SUNY Cortland's commitment to a diverse, equitable, and inclusive environment, we strive to provide students with equal access to all courses. If you believe you will require accommodations in this course, please place a request with the Disability Resources Office at [disability.resources@cortland.edu](mailto:disability.resources@cortland.edu) or call 607-753-2967. Please note that accommodations are generally not provided retroactively so timely contact with the Disability Resources Office is important. All students should consider meeting with their course instructor who may be helpful in other ways. (College Handbook, Chapter 745)

**Diversity Statement:** SUNY Cortland is dedicated to the premise that every individual is important in a unique way and contributes to the overall quality of the institution. We define diversity broadly to include all aspects of human difference. The College is committed to inclusion, equity, and access and thus committed to creating and sustaining a climate that is equitable, respectful and free from prejudice for students, faculty and staff. We value diversity in the learning environment and know that it enhances our ability to inspire students to learn, lead and serve in a changing world. We are committed to promoting a diverse and inclusive campus through the recruitment and retention of faculty, staff and students. As a community, we hold important the democracy of ideas, tempered by a commitment to free speech and the standards of inquiry and debate. To this end, we are dedicated to developing and sustaining a learning environment where it is safe to explore our differences and celebrate the richness inherent in our pluralistic society. (College Handbook, Chapter 130)

**Inclusive Learning Environment Statement:** SUNY Cortland is committed to a diverse, equitable and inclusive environment. The course instructor honors this commitment and respects and values differences. All students enrolled in this course are expected to be considerate of others, promote a collaborative and supportive educational environment, and demonstrate respect for individuals with regard to ability or disability, age, ethnicity, gender, gender identity/expression, race, religion, sex, sexual orientation, socio-economic status or other aspects of identity. In an environment that fosters inclusion, students have the opportunity to bring their various identities into conversation as they find helpful, but are not expected to represent or speak for an entire group of people who share aspects of an identity. If you have any questions or concerns about this statement, contact the Institutional Equity and Inclusion Office at 607-753-2263.

**Title IX Statement:** Title IX, when combined with New York Human Rights Law and the New York Education Law 129-B, prohibits discrimination, harassment and violence based on sex, gender, gender identity/expression, and/or sexual orientation in the education setting. The federal Clery Act and NY Education Law 129-B provide certain rights and responsibilities after an incident of sexual or interpersonal violence. When a violation occurs, victims and survivors are eligible for campus and community resources. Where the College has jurisdiction, it may investigate and take action in accordance with College policy. If you or someone you know wishes to report discrimination based in sex, gender, gender identity/expression, and/or sexual orientation, or wishes to report sexual harassment, sexual violence, stalking or relationship violence, please contact the Title IX Coordinator at 607-753-4550, or visit [cortland.edu/titleix](http://cortland.edu/titleix) to learn about all reporting options and resources. (Updated by SUNY Legal Feb. 1, 2018).

### Course Schedule:

This is a tentative schedule, and subject to change.

Week	Dates	Topics	Assignments Due
1	8/22 8/24 8/26	0.1 Functions and Their Graphs 0.2, 0.3 Important Functions, Algebra of Functions 0.4, 0.5 Zeroes of Functions, Power Functions	Written #1
2	9/2 9/4 9/6	<b>Labor Day - No Class</b> 0.6 Functions and Graphs in Applications 1.1 Slope of a Line	MyMathLab #1 Written #2
3	9/9 9/11 9/13	Average Rate of Change, The Idea of a Limit 1.4 Limits 1.5 Limits and Continuity	MyMathLab #2 Written #3
4	9/16 9/18 9/20	1.4 Limits at Infinity Review Exam 1	MyMathLab #3 Written #4
5	9/23 9/25 9/27	1.2 Tangent Lines 1.4 Definition of the Derivative 1.3, 1.6 Basic Differentiation Rules	MyMathLab #4 Written #5
6	9/30 10/2 10/4	1.5 Differentiation and Continuity 1.7 More About Derivatives 1.8 Derivatives as Rates of Change	MyMathLab #5 Written #6
7	10/7 10/9 10/11	2.1 Describing Graphs of Functions 2.2 The First and Second Derivative Rules 2.3 The First and Second Derivative Tests	MyMathLab #6 Written #7
8	10/14 10/16 10/18	2.4 Curve Sketching Review Exam 2	MyMathLab #7 Written #8
9	10/21 10/23 10/25	<b>Fall Break - No class</b> 2.5 Optimization 2.6 Optimization II	
10	10/28 10/30 11/1	2.7 Applications to Business and Economics 3.1 Product Rule 3.1 Quotient Rule	MyMathLab #8 Written #9
11	11/4 11/6 11/8	3.2 Chain Rule 3.3 Implicit Differentiaion 3.3 Related Rates	MyMathLab #9 Written #10
12	11/11 11/13 11/15	3.3 Related Rates II Review Exam 3	MyMathLab #10 Written #11
13	11/18 11/20 11/22	4.1 Exponential Functions 4.2 The Exponential Function $e^x$ 4.3 Differentiaion of Exponential Functions	MyMathLab #11 Written #12
14	11/25	4.4 The Natural Logarithm Function	
	11/27 – 11/29	<b>Thanksgiving Break - No Class</b>	
15	12/2 12/4 12/6	4.5 The Derivative of $\ln x$ 4.6 Properties of The Natural Logarithm Review	MyMathLab #12 Written #13
	12/9 – 12/13	<b>Finals Week</b>	