Tentative Syllabus, subject to change

1232G: Tues. / Thurs.: 12:30-1:45 (NS 2215) || **Final Exam:** Tues., Dec. 10, 12:30-2:30

Instructor: Dr. Eryn M. Stehr   **E-Mail:** estehr@GeorgiaSouthern.edu
Office: MP 2303   **Phone:** (912) 478-5706 (office)

Note: My email is almost always open when I'm here and I try to respond right away. In email subject lines, please include "1232G" with a brief description. I will typically respond within 24 hours; responses may be delayed on weekends or breaks.

Office Hours: My **office hours** are a specific chunk of time that I have set aside for you. Please take advantage of this time! In addition, I am happy to schedule time with you outside of these hours via face-to-face, phone call, or video conferencing.

Monday	Tuesday	Wednesday	Thursday	Friday
*as needed	10:00 – 12:00	1:00 - 2:30	10:00 – 12:00	*as needed

PREREQUISITES: A minimum grade of "C" in Introduction to Mathematical Modeling (MATH 1101) or College Algebra (MATH 1111) or College Trigonometry (MATH 1112) or Pre-Calculus Mathematics (MATH 1113).

REQUIRED COURSE MATERIALS:
- Calculus and Its Applications, 12th Edition by Bittinger, Ellenbogen, Surgent.
- A MyLabsPlus access code that must be purchased from GSU's bookstore ($83.99) or through Pearson ($74.99).
  - Before the first day of class, go to the 1232G Foldio course site to access MyLabsPlus. Once in MyLabsPlus, you will be prompted to **type in** an access code, **buy** an access code or **purchase later** (within 14 days).
  - The access code gives you access to the online textbook, homework, and other resources.
- **Calculator is required:** TI-84 / TI-83 graphing calculator is recommended, although a non-graphing calculator TI-30X IIS is workable for the course (and cheap!). A TI-86 or TI-89 graphing calculator will **not** be allowed in class or on exams. **I use a TI-84 Plus calculator in class.**

COURSE DESCRIPTION: Covers the fundamental elements of differential and integral calculus of algebraic, logarithmic and exponential functions. Topics include a brief review of algebraic principles, limits, derivatives and integrals. Appropriate technology will be incorporated throughout the course.

COURSE OBJECTIVES: The student will demonstrate an understanding of the elementary calculus concepts of limits, derivatives and integration on algebraic, exponential and logarithmic functions. The student will apply these concepts, with the aid of appropriate technology, to the solving of a variety of problems including real world situations related to business and economics. **For General Education Objectives**, see http://academics.georgiasouthern.edu/provost/instruction/gened_outcomes.html
* Course content may vary from this outline to meet the needs of this particular group.

ATTENDANCE: Attendance and participation in class is crucial to your success, so it is required. Students are responsible for everything covered, mentioned, discussed, and displayed in class. **All reading, classroom work, homework, or exams must be completed / made up before the next class. 7 or more absences will result in an "F" for the course.**
- It is your responsibility to sign the daily sign-in sheet each class period; failure to do so will result in an absence.
- Signing the class roster for another individual is considered academic misconduct and will result in an "F" for the course.
- Arriving more than 10 minutes late or leaving early without prior permission will be treated as an absence.
- An absence due to sickness, injury, or other emergency will be excused IF you have proper documentation.
- GSU-related absences are also excused with proper documentation.

WORKLOAD: Georgia Southern University expectations for out-of-class work is 2 hours out of class for each 1 hour in class. Out-of-class work includes reading the online textbook, completing the online homework, and practicing procedures and concepts until you can do them with ease. Do not fall behind - talk to Dr. Stehr early and often about study strategies and questions.

GRADE DETERMINATION

		GRADING SCALE	
Online Homework (MyLabs Plus)	20%	A	90% and above
Quizzes and In-class Worksheets	15%	B	Above 80% / below 90%
Exam 1	15%	C	Above 70% / below 80%
Exam 2	15%	D	Above 60%, below 70%
Exam 3	15%	F	Less than 60%
Comprehensive Final Exam	20%		

COURSE REQUIREMENTS:
- **Homework:**
  - Course material is contained in selected sections of the first six chapters of the textbook.
  - You are required to read, take notes on, and study sections before we discuss them in class. **(See attached course schedule)**
  - For each section, you must complete the MyLabsPlus homework assignment by 11:59 pm on the due date. No late homework will be accepted.
- **Quizzes and Worksheets**: You will have several in-class quizzes based on reading and studying the textbook before class, and on your knowledge of any course material covered in class prior to the quiz. At times, worksheets will be part of classwork, to be completed in groups (or possibly completed outside of class).
- **Exams**: Three unit exams, each contributing 15% towards your final score, will be given. The class prior to each exam date will focus on review to prepare for the exam.
- **Make-up Policy:** Make-up exams will only be given in emergency situations at the instructor's discretion. If a student misses an exam with proper documentation, the score from the final exam will be substituted for the missing exam score provided that proper documentation for missing the exam has been given to the instructor (i.e., doctor's note) within 48 hours of missing the exam.
- **Final Exam:** A cumulative final exam worth 20% of your final score will be held on Tues., Dec. 10, 2019, 12:30–2:30 pm.

Academic Dishonesty Policy: Academic dishonesty is a very serious offense and will not be tolerated. Any student caught cheating is subject to a grade of "F" for the assignment and will be reported to the University Judicial Officer. For more information, visit the Student Guide at http://deanofstudents.georgiasouthern.edu/conduct/.

Disability Policy: If you have a physical, psychological, and/or learning disability, which may affect your performance in this class, please contact the Student Accessibility Resource Center as soon as possible. See their website at http://studentsupport.georgiasouthern.edu/sarc/.

Additional Help: **FREE** tutoring is offered in the Math Department computer lab (MASTER, Math/Physics 3000) and at the Academic Success Center (http://studentsupport.georgiasouthern.edu/asc/). Check for hours.

Civility Statement: Each student is expected to follow the Student Conduct Code with regard to appropriate behavior in the classroom. Appropriate behavior includes attentively listening, participating in class and group tasks & discussions, getting to class on time, participating but not dominating, and avoid off-task use of devices. Inappropriate behavior includes any activity that interferes with your classmates' learning experience. Some of these activities include sleeping in class, arriving late, leaving early, repeatedly off-task talking, dominating class discussion, and off-task use of devices. Please respect your peers by not being disruptive in class. **Any student disrupting the learning environment will be informed and counted absent for the day.**

Important Dates:
- Classes begin: August 19
- Labor Day (Administrative Holiday): September 2
- Last day to withdraw without academic penalty: October 14
- Thanksgiving Holiday: November 25-29
- Last day of class: December 6

Tentative Exam Dates:

Exam 1	~~September 17~~ **postponed due to Dorian to Sept. 24**
Exam 2	**October 24**
Exam 3	**November 19**
Final Exam	**Tuesday, December 10; 12:30 - 2:30 pm**

Final Exams must be taken at the scheduled time. A student must have permission from the instructor, Mathematics Department Chair and Dean of COSM to reschedule a final exam. Please notify me as soon as possible if you have a conflict.

Tentative Dates	Tentative Course Calendar: Changes will be announced in class & updated in syllabus on Folio
	Unit 1: Functions
Tues., Aug. 20	** Read Syllabus and Visit Course Folio & MyLabsPlus Sites before class §R-2 Functions and Models (Read pp 13-20)
Thurs., Aug. 22	§R-3 Finding Domain and Range (Read pp 24-31)
Tues., Aug. 27	§R-4 Slope and Linear Functions (Read pp 34-43)
Thurs., Aug. 29	§R-5 Nonlinear Functions and Models (Read pp 49-59)
Tues., Sep. 3	<<Class cancelled due to hurricane - out-of-class make-up sessions listed below>>
Thurs., Sep. 5	<<Class cancelled due to hurricane - out-of-class make-up sessions listed below>>
Tues., Sep. 10	§2-1 Exponential and Logarithmic Functions of the Natural Base, e (Read pp 195-203) §6-1 Amortization / Functions of Several Variables (Read pp 551-557)
Thurs., Sep. 12	§1-1 Limits: A Numerical and Graphical Approach (Read pp 101-112) §1-2 Algebraic Limits and Continuity (Read pp 116-123)
Tues., Sep. 17	§1-3 Average Rates of Change (Read pp 127-133) §1-4 Differentiation using Limits of Difference Quotients (Read pp 137-144) (Dfn of Deriv. using Diff. Quotients)
Thurs., Sep. 19	**Review: Summary pages on pp. 20, 31, 43, 59, 203, 557, 112, 123, 133, 144**
Tues., Sep. 24	**Exam 1 (on sections R-2 -- R-5, 2-1, 6-1, 1-1 -- 1-4)**
	Unit 2: Differentiation
Thurs., Sep. 26	§1-5 Liebniz Notation and the Power and Sum-Difference Rule (Read pp 146-154)
Tues., Oct. 1	§1-6 The Product and Quotient Rules (Read pp 158-162) §1-7 The Chain Rule (Read pp 166-171)
Thurs., Oct. 3	§1-8 Higher-Order Derivatives (Read pp 174-178)
Tues., Oct. 8	§2-2 Derivatives of Exponential (Base e) Functions (Read pp 206-210) §2-3 Derivatives of Natural Logarithmic Functions (Read pp 212-216)
online make-up session	§3-1 Using First Derivatives to Classify Maximum and Minimum Values and Sketch Graphs (Read pp 263-276)
online make-up session	§3-2 Using Second Derivatives to Classify Maximum and Minimum Values and Sketch Graphs (Read pp 279-290)
Thurs., Oct. 10	§3-4 Optimization: Finding Absolute Maximum and Minimum Values (Read pp 308-313)
Tues., Oct. 15	§3-5 Optimization: Business, Economics, and General Applications (Read pp 316-328) §3-6 Marginals, Differentials, and Linearization (Read pp 333-341)
Thurs., Oct. 17	§3-7 Elasticity of Demand (Read pp 345-351)
Tues., Oct. 22	**Review: Summary pages on pp. 154, 162, 171, 178, 210, 216, 276, 290, 313, 328, 341, 351**
Thurs., Oct. 24	**Exam 2 (on sections 1-5 -- 1-8, 2-2, 2-3, 3-1 -- 3-7)**
	Unit 3: Integration
Tues., Oct. 29	§4-1 Antidifferentiation (Read pp 385-391)
Thurs., Oct. 31	§4-2 / 4-3 Areas and Anti-Derivatives + Fundamental Theorem of Calculus (Read pp. 395-401; 405-412)
Tues., Nov. 5	§4-5 Integration Techniques: Substitution (Read pp 429-434)
Thurs., Nov. 7	§5-1 Consumer and Producer Surplus (Read pp 471-479)
Tues., Nov. 12	§6-2 Partial Derivatives (Read pp 560-566)
Thurs., Nov. 14	**Review: Summary pages on pp. 391, 401, 412, 434, 479, 566**
Tues., Nov. 19	**Exam 3 (on sections 4-1 -- 4-5, 5-1, 6-2)**
Thurs., Nov. 21	§5-2 Integ. Growth & Decay Models (Read pp 481-489) (Accum. Future/Present Value of Cont. Income Stream)
	Thanksgiving Week (Nov. 25 - Nov. 29) No Class
Tues., Dec. 3	§6-1 Amortization / Functions of Several Variables (Read pp 551-557) (revisited)
Thurs., Dec. 5	**Review: Chapter summaries on pp. 86, 183, 251, 368, 456, 538, 602**
	Tues., Dec. 10 12:30 - 2:30 pm *Final Exam (comprehensive across all chapters incl. 5-2 & 6-1)*