S H

Classroom and Schedule: Tuesday and Thursday, 9:30am-10:50am; Room 415, Lee Drain Building (LDB)

INSTRUCTOR: Dr. Emma Bullock, PhD

Student-Instructor Communication Plan: I answer emails and phone messages within 24hrs Monday-Friday. On holidays and weekends, I take care of my family; so, I may, or may not, answer until Monday, or the next business day. I will never respond on a Sunday unless it is an emergency.

Office:	439G	**FAX:**	(936) 294-1182
Phone:	(936) 294-3816	**Office Hours:**	T, R 8:30-9:30am, 12:30-1:30pm
Email:	ebullock@shsu.edu		or by appointment
Homepage:	**https://www.shsu.edu/academics/mathematics-and-statistics/faculty/bullock.html**		
ResearchGate:	**https://www.researchgate.net/profile/Emma_Bullock5**		

Course Description: This course is an introduction to the concepts and applications of calculus to topics in middle school mathematics. Prerequisite: C or better in MATH 2384. (3 semester hours)

COURSE OBJECTIVES: Upon completion of this course, students will be able to:
- Understand and apply the conceptual foundations of calculus related to topics in middle school mathematics.
- Relate topics in middle school mathematics to the concept of limit in sequences and series.
- Relate the concept of average rate of change to the slope of a secant line and instantaneous rate of change to the slope of the tangent line.
- Relate topics in middle school mathematics to the area under a curve.
- Demonstrate an understanding of the use of calculus concepts to answer questions about rates of change, areas, volumes, and properties of functions and their graphs.
- Develop a broader understanding and appreciation of calculus as it relates to middle school mathematics.

Required Textbook: *Concepts and Applications of Calculus: Limits, Derivatives, and Integrals* by Dustin L. Jones. This book is currently in a draft form. Information about obtaining the book will be posted on Blackboard.

Required Technology:
- Handheld graphing calculator: TI-83/84/84+ or NSpire
- Spreadhseet—such as Microsoft Excel or Google Sheets, available through SHSU or online
- GeoGeobra – free download available from www.geogebra.org
- Desmos graphing calculator – freely available from www.desmos.com
- Blackboard Mobile App
- Access to Blackboard on a Computer

Required Supplies: Bring the following supplies to each class meeting.
- Colored pencils, crayons, or markers
- Graph Paper
- Folder to take notes (3-ring binder is recommended)
- Flat Folder to Turn-In Folder Checks
- Textbook (either in print or electronically)

BLACKBOARD: Up-to-date course information will be posted on Blackboard, including reading materials, deadlines, notes, and assignments. **Please check Blackboard regularly.**

Course Evaluation: Each student's grade will be based on the following:

In Class: 3 Unit Tests (each 100 points)	300
Blackboard: Daily Quick Checks (each 2 points—best 20 of 23)	40
Blackboard: Online Quizzes (5 at 12 points each)	60
Homework: Folder Checks (4 at 25 points each)	100
In Class: Final Exam	200
Total Points:	700

Grading Scale:

Points earned	630-700	560-629	490-559	420-489	less than 420
Course grade	A	B	C	D	F

DAILY QUICK CHECKS: Except for the first day of class and test days, there will be a daily quick check. This consists of 1 question from the previous night's homework. You will have only 3-5 minutes to complete the open-note (not open friend) quiz. It will generally be impossible for you to solve the problem and complete the quiz in two minutes. However, if you have done your homework, you should have no problem completing the quick check in the time allotted. Each Quick Check is worth **2 points**. Your **best 20 of 23** will be counted toward your final point total. Because you will drop your lowest 4 scores, **NO LATE WORK WILL BE ACCEPTED.**

FOLDER CHECKS: One of the indicators of the understanding of a concept is the ability "to state it in your own words". Communicating your understanding will be shown through your complete solutions to assigned homework problems and through classwork, written responses/reflections to readings, questions, situations, activities or other topics related to your study of mathematics. Folder checks will be collected 4 times over the course of the semester and be **worth 25 points** each. Points are awarded based on overall completeness, thought, and effort displayed in your work and in class. A rubric will be passed out in class explaining how points are earned. **NO LATE WORK WILL BE ACCEPTED.**

ONLINE QUIZZES: As an additional check on completion of HW assignments, assigned textbook readings, and other learning assignments given, there will be 5 online quizzes posted on Blackboard for your completion. Each quiz will be **worth 12 points**. You will have several days to access these open book (not open friend) quizzes and complete your answers and submit them for grading. You will have 3 attempts for each quiz. Once the deadline for response is past, no further access is available for that quiz. Further details will be shared at the time of the first quiz being posted. **NO LATE QUIZZES WILL BE ACCEPTED.**

UNIT TESTS: Tests will include problems that are similar to problems assigned and worked in class, in the homework, and on the quizzes. The exams are tentatively scheduled for **Tuesday, February 20, Tuesday, March 20** and **Tuesday, April 17.** You will have access to all the technology we use in class during the tests.

FINAL EXAM: The final exam is comprehensive and will be held on **Thursday, May 10, 9:30 - 11:30 a.m.** You will have access to all the technology we use in class during the final exam.

CLASS PARTICIPATION AND ATTENDANCE: Regular and punctual attendance is expected of every student. As a prospective teacher, you must demonstrate your reliability and conscientious attitude by your faithful attendance. Attendance will be taken every class. Any student who is more than 30 minutes late to class will be counted absent. Tardies will count against your attendance record (3 tardies - 1 absence). Unless approved by the instructor, leaving class early will count as an absence. **If absent or tardy, you are still responsible for all material covered in class.** If you are absent due to an emergency or serious illness, you will need to fill out an absence notification request form that you can get in the Dean of Students Office located in LSC215. You need to

complete it within 10 days of the absence. You can take the documentation to them personally. Or, you may email them at doso@shsu.edu or call them at (936) 294-1785 to take care of the paperwork. If your absence is approved, they will notify me. If your absence is not approved, NO LATE WORK WILL BE ACCEPTED. If you have **3 or fewer** absences (this includes non-excused and excused), your final exam percentage grade can be substituted for your lowest unit test grade in figuring your final course grade.

MISSED TEST POLICY: If you are unable to take a test due to an Official University excused absence, arrangements for taking the test must be made in advance of the scheduled test date. If you miss a test due to an unforeseeable emergency situation, contact Dr. Bullock as soon as possible but must be prior to the next class meeting for any possibility of taking a makeup test. If you miss a test and a makeup test is not possible, your final exam percentage grade will be used as a replacement.

EXTRA CREDIT and ADDITIONAL RESOURCES FOR SUCCESS: Extra credit will be given at Dr. Bullock's discretion. Please put forth your best effort all semester and attend office hours and online feedback/review sessions for additional help. **ALL** students will benefit from this. If Dr. Bullock determines you are putting forth your best efforts, you may be offered extra credit opportunities, such as test corrections or answering additional homework questions for points, etc. Students who earn a D or F on a Test will be required to meet with Dr. Bullock, one-on-one, before being allowed extra credit opportunities. This is intended to help each student understand what is hindering their success and come up with a remediation plan together. (I promise that I am not too scary. ☺). If you would like the recommendation of a tutor for this course, please email me, and I will put you in contact with one of my former students who did well in the course.

Course Schedule (I always reserve the right to take away from the schedule if I deem it necessary.)

Class Date	Class Agenda/Online Content	Classwork/Homework	Assignments DUE
R 1/18	Introduction/Getting Started 0.1 An interesting equation 0.2 Change 0.3 Area 1.1 Introduction & Technology Syllabus Scavenger Hunt Introduce Folder Check Rubric	PS1.1	
T 1/23	1.2 Sequence & Series 1.3 Infinite Geometric Series Discuss Folder Check Rubric In Detail	Online Quiz 1 (Ch. 1) PS1.2 PS1.3	PS1.1 Quick Check 1 (Syllabus)
R 1/25	1.4 Perimeter of a Circle 1.5 Location of a Hole in a Graph Blackboard: Answers for PS1.2 & 1.3	PS1.4 PS1.5	PS1.2 PS1.3 Quick Check 2 (PS1.2 & 1.3)
T 1/30	2.1 How Do We Measure Speed Blackboard: Answers for PS1.4 &1.5	Online Quiz 2 (Ch. 2) PS2.1	Online Quiz 1 (Ch. 1) PS1.4 PS1.5 Quick Check 3 (PS1.4 & 1.5)
R 2/1	2.2 Derivative at a Point Blackboard: Answers for PS2.1 Feedback for Online Quiz 1 (Ch.1)	PS2.2	PS2.1 Quick Check 4 (PS2.1)

T 2/6	2.3 The Derivative Function Blackboard: Answers for PS2.2	PS2.3	PS2.2 Quick Check 5 (PS2.2)
R 2/8	2.4 Interpretations of the Derivative Blackboard: Answers for PS2.3	PS2.4	PS2.3 Quick Check 6 (PS2.3)
T 2/13	2.5 The Second Derivative Blackboard: Answers for PS2.4	PS2.5	PS2.4 Quick Check 7 (PS2.4)
*R 2/15 Online Class	No Class Meeting—Blackboard: Review for Exam 1 Answers for PS2.5 Feedback for Online Quiz 2 (Ch. 2)		Online Quiz 2 (Ch. 2) PS2.5 Quick Check 8 (PS2.5)
T 2/20	Exam 1 (Chapters 1 and 2)		Folder Check 1 (Chs. 0-2)
R 2/22	3.1 How Do We Measure Distance Traveled Blackboard: Feedback for Exam 1 Feedback for Folder Check 1	Online Quiz 3 (Ch. 3) PS3.1	
T 2/27	3.2 The Definite Integral Blackboard: Answers for PS3.1	PS3.2	PS3.1 Quick Check 9 (PS3.1)
R 3/1	3.3 Area Between Curves Blackboard: Answers for PS3.2	PS3.3	PS3.2 Quick Check 10 (PS3.2)
	3.4 Interpretations of the Definite Integral Blackboard: Answers for PS3.3	PS3.4	PS3.3 Quick Check 11 (PS3.3)
T 3/6	3.5 Theorems about Definite Integrals Blackboard: Answers for PS3.4	PS3.5 Part 1	PS3.4 Quick Check 12 (PS3.4 Part 1)
R 3/8	3.5 Theorems about Definite Integrals Blackboard: Review for Exam 2 Answers for PS3.5 **Posted by 3/10:** Feedback for Online Quiz 3 (Ch. 3)	PS3.5 Part 2	PS3.5 Quick Check 13 (PS3.5) **DUE 3/9 by 11:59pm:** Online Quiz 3 (Ch.3)
T 3/20	Exam 2 (Chapter 3)		Folder Check 2 (Ch. 3)
R 3/22	4.1 Derivatives of Powers and Polynomials Blackboard: Feedback for Exam 2 Feedback for Folder Check 2	Online Quiz 4 (Ch. 4) PS4.1 Part 1	

T 3/27	4.1 Derivatives of Powers and Polynomials Continued 4.2 Derivatives of Exponential Functions	PS4.1 Part 2 PS4.2 Part 1	PS4.1 Part 1 Quick Check 14 (PS4.1 Part 1)
R 3/29	4.2 Derivatives of Exponential Functions Blackboard: Answers for PS4.1	PS4.2 Part 2	PS4.1 Part 2 PS4.2 Part 1 Quick Check 15 (PS4.1 Part 2 and PS4.2 Part 1)
T 4/3	4.3 The Derivative of a Composite Function Blackboard: Answers for PS4.2	PS4.3	PS4.2 Part 2 Quick Check 16 (PS4.2 Part 2)
R 4/5	4.4 Antiderivatives Blackboard: Answers for PS4.3	PS4.4	PS4.3 Quick Check 17 (PS4.3)
T 4/10	4.5 The Fundamental Theorem of Calculus Blackboard: Answers for PS4.4	PS4.5 Part 1	PS4.4 Quick Check 18 (PS4.4)
*R 4/12 Online Class	No Class Meeting— 4.5 The Fundamental Theorem of Calculus Blackboard: Review for Exam 3 Answers for PS4.5 **Posted by 4/14:** Feedback for Online Quiz 4 (Ch.4)	PS4.5 Part 2	PS4.5 Part 1 Quick Check 19 (PS4.5 Part 1 **DUE 4/13** Online Quiz 4 (Ch.4)
*T 4/17 Sub Today	Exam 3 (Chapter 4)		
R 4/19	5.1 Area of a Circle	Online Quiz 5 (Ch. 5) PS5.1	Folder Check 3 (Ch. 4)
T 4/24	5.2 Extrema Blackboard: Answers for PS5.1 Feedback for Exam 3 Feedback for Folder Check 3	PS5.2	PS5.1 Quick Check 20 (PS5.1)
R 4/26	5.3 Optimization Blackboard: Answers for PS5.2	PS5.3	PS5.2 Quick Check 21 (PS5.2)
T 5/1	5.4 Length of a Curve Blackboard: Answers for PS5.3	PS5.4	PS5.3 Quick Check 22 (PS5.3)
R 5/3	Review for Final Blackboard: Answers for 5.4		Online Quiz 5 (Ch. 5) PS5.4 Folder Check 4 (Ch. 5)

	Feedback from Online Quiz 5 (Ch. 5) **Posted 5/4:** Feedback for Folder Check 4		Quick Check 23 (PS5.4)
Finals Week	**Thursday, May 10, 9:30 - 11:30 am**		

CLASSROOM RULES OF CONDUCT

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

Use of Telephones and Text Messagers in Academic Classrooms and Facilities: The use by students of electronic devices that perform the function of a telephone or text messager during class-time may be prohibited if deemed disruptive by the instructor to the conduct of the class. Arrangements for handling potential emergency situations may be granted at the discretion of the instructor. Failure to comply with the instructor's policy could result in expulsion from the classroom or with multiple offenses, failure of the course. Any use of a telephone or text messager or any device that performs these functions during a test period is prohibited. These devices should not be present during a test or should be stored securely in such a way that they cannot be seen or used by the student. Even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty (see student code of conduct http://www.shsu.edu/students/guide/StudentGuidelines2010-2012.pdf#page=29).

VISITORS IN THE CLASSROOM

Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will provide the student with a written description of the deadline for the completion of missed assignments and/or tests.

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see:
http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf

ACADEMIC DISHONESTY POLICY
Academic dishonesty will prevent you from mastering the content and will result in you not only failing the course, but, even if you are not caught, will damage your future students which is immoral and unethical. If you feel you need to cheat, please do NOT become a teacher!
1. GENERAL
The subject of academic honesty is addressed in paragraph 5.3, Chapter VI, of the Rules and Regulations, Board of Regents, The Texas State University System, and Sam Houston State University Student Guidelines published by the Office of Student Life.
5.3 Academic Honesty. The University expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action.
5.31 The University and its official representatives, acting in accordance with Subsection 5.32 may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating, plagiarism, collusion, and the abuse of resource materials.

"**Cheating**" includes the following and similar actions:
(1) Copying from another student's test paper, laboratory report, other report, or computer files, data listings, and/or programs.
(2) Using, during a test, materials not authorized by the person giving the test.
(3) Collaborating, without authorization, with another student during an examination or in preparing academic work.
(4) Knowingly, and without authorization, using, buying, selling, stealing, transporting, soliciting, copying, or possessing, in whole or in part, the contents of an unadministered test.
(5) Substituting for another student, permitting any other person, or otherwise assisting any other person to substitute for oneself or for another student in the taking of an examination or test or the preparation of academic work to be submitted for academic credit.
(6) Bribing another person to obtain an unadministered test or information about an unadministered test.
(7) Purchasing, or otherwise acquiring and submitting as one's own work any research paper or other writing assignment prepared by an individual or firm. This section does not apply to the typing of the rough and/or final versions of an assignment by a professional typist.
5.32 "Plagiarism" means the appropriation and the unacknowledged incorporation of another's work or idea into one's own work offered for credit.
5.33 "Collusion" means the unauthorized collaboration with another person in preparing work offered for credit.
5.34 "Abuse of resource materials" means the mutilation, destruction, concealment, theft or alteration of materials provided to assist students in the mastery of course materials.
5.35 "Academic work" means the preparation of an essay, dissertation, thesis, report, problem, assignment, or other project that the student submits as a course requirement or for a grade.

2. PROCEDURES IN CASES OF ALLEGED ACADEMIC DISHONESTY
2.01 Procedures for discipline due to academic dishonesty shall be the same as in disciplinary actions specified in The Texas State University System Rules and Regulations and Sam Houston State University Student Guidelines except that all academic dishonesty actions shall be first considered and reviewed by the faculty member teaching the class. The faculty member may impose failure or reduction of a grade in a test or the course, and/or performing additional academic work not required of other students in the course. If the faculty member believes that additional

disciplinary action is necessary, as in the case of flagrant or repeated violations, the case may be referred to the Dean of Student Life or a designated appointee for further action. If the student involved does not accept the decision of the faculty member, the student may appeal to the chair of the appropriate academic department/school, seeking reversal of the faculty member's decision.

2.02 If the student does not accept the decision of the chair of the academic department/school, he/she may appeal to the appropriate academic dean. The chair of the academic department/school may also refer the case directly to the academic dean if the case so warrants.