

WACO, TEXAS

COURSE SYLLABUS AND INSTRUCTOR PLAN

Calculus for Business & Social Sciences

MATH 1325.01

Peter Blaskiewicz

NOTE: This is a Face-to-Face course.

NOTE: This is a 6-week Summer course.

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SUMMER 1 2023

Course Description:

MATH 1325 Calculus for Business & Social Sciences Presents the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. Topics include optimization of functions, curve sketching, definite and indefinite integrals, differential equations, partial derivatives, and Lagrange multipliers.

Prerequisite:

Math 1324 (Mathematics for Business & Social Sciences) or Math 1314 (College Algebra) with a minimum grade of C, or pass college algebra placement test, or consent of division director.

Course Notes and Instructor Recommendations:

Success in this course requires a prior working knowledge of basic algebra concepts, obtained in the prerequisite courses. These basic skills are not retaught in this class, but they are applied to business-specific problems and processes. If it has been more than three years since the prereqs were completed, or if the student knows that his/her basic algebra skills are weak, the student is strongly encouraged to take a College Algebra refresher.

MyMathLab (*MML*) will be used extensively for posting course notes, assignments, grades, testing, and other communications. Students are expected to check their *MML* and MCC email accounts often.

Instructor Information:

Instructor Name:	Peter Blaskiewicz	
MCC Email:	<u>pblaskiewicz@mclennan.edu</u>	
Office Phone Number:	254.299.8869	
Office Location:	MATH 213	
Office/Teacher Conference Hours:	MTWTh 1:30 – 2:30 p.m.	
	Other times by arrangement via email	
Zoom Office Meeting ID:	254 299 8869 (https://mclennan.zoom.us/j/2542998869)	
Other Instruction Information:	If you are calling from a number that is not 'local' to Waco,	
and I am out of office, please email instead of leaving a voice-mail; I would not be able		
to return a 'long-distance' ca	.11.	

<u>Required Text & Materials:</u>

Title:	Finite Mathematics and Calculus with Applications (MyMathLab access
	required; text is optional. MML Course ID will be announced in Brightspace.
Author:	Lial, Greenwell, and Ritchey
Edition:	10^{th} ed.
Publisher:	Pearson/Addison Wesley
ISBN:	978-0-321-19991-1 (for MML if not purchasing through Pearson website)
	978-0-321-97940-7 (for optional printed hardback)

MCC Bookstore Website: http://www.mclennan.edu/bookstore/

Methods of Teaching and Learning:

Lecture with face-to-face classroom meetings, with Zoom running; student participation in example problems; homework submitted online through MyMathLab; tests and a final exam in MyMathLab.

Course Objectives and/or Competencies:

Upon successful completion of Math 1325, the student will be able to:

- recall the limit definition of derivative and use it to derive simple functions.
- recall and use the polynomial, product, quotient, chain, exponential, logarithmic, and implicit rules/techniques for calculating derivatives.
- use derivatives to write equations of tangent lines, calculate rates of change, optimize functions, evaluate marginal functions, and to analyze functions and their graphs for increase/decrease, relative and absolute extrema, concavity, and inflection.
- solve a variety of business and economics applications involving optimization, extrema, and concavity, with and without a graphing calculator.
- calculate antiderivatives, definite integrals, and improper integrals.
- apply antiderivatives to solve elementary differential equations.
- apply definite integrals to calculate areas under and between curves, volumes of solids of revolution, and average value of functions, using a graphing calculator when appropriate.
- calculate first- and second-order partial derivatives of functions in several variables.
- test functions in two variables for relative maxima/minima and saddle points.
- apply Lagrange multipliers to optimize two-variable functions with constraints.
- evaluate double integrals and use them to calculate volumes beneath surfaces and over rectangular regions.

Course Outline or Schedule:

The schedule is subject to change. Should a change become necessary, students will be notified about changes verbally, during class. In the event unforeseen circumstances prevent a class from occurring as scheduled, either make-up lecture material will be posted in Brightspace or the calendar schedule will be adjusted and announced. If something on the school's end or the publisher's end prevents a test from taking place as scheduled, the test window will be moved forward to the next available day.

<u>Date</u>	<u>Topics</u>
Tuesday, May 30	Introduction; $11.1 - 11.4$ briefly
Wednesday, May 31	12.1; 12.2; 12.3
Thursday, June 1	12.4; 12.5
Monday, June 5	13.1; 13.2
Tuesday, June 6	Ch 12 Test
Wednesday, June 7	13.3; 13.4
Thursday, June 8	14.1; 14.2
Monday, June 12	Ch 13 Test
Tuesday, June 13	14.3; 14.4
Wednesday, June 14	Ch 14 Test
Thursday, June 15	15.1; 15.2
Tuesday, June 20	15.4; 15.5
Wednesday, June 21	16.2; 16.4
Thursday, June 22	16.5
Monday, June 26	Ch 15 & 16 Test
Tuesday, June 27	17.1; 17.2
Wednesday, June 28	17.3; 17.4
Thursday, June 29	17.6
Monday, July 3	Ch 17 Test / Review
Wednesday, July 5	Final Exam

Course Grading Information:

Your course grade will be based on homework, chapter tests, and a final exam. All will be submitted online in MyMathLab. The relative weights of each of these factors are as follows:

Homework (online using MyMathLab)	20%
Chapter Tests (a projected total of 5; subject to change)	60%
Final Exam	20%

Work the online homework in MyMathLab. Homework over a section will be due at the time of the test over that section; late homework will be penalized 5% per day of the credit on the problems submitted late. (The penalty will not be applied to any problems in a set that are submitted on time, but only to problems in the set that are submitted late.) As students who have successfully completed other mathematics courses in the past, you should know the value and necessity of practicing these exercises outside of class time. Note: If the usual access to MyMathLab at http://www.mymathlab.com/ is down for any reason, try using this alternate URL to get directly to the homework: https://www.mathxl.com/login_mml.htm (No other functionality except homework access is available here, but at least you'll meet homework deadlines.)

The chapter tests will be in MyMathLab. They will have a time limit, and they must be completed within a specified window (usually, our class period; but occasionally, a day or so). The tests will all be weighted equally, with all the test weights equal to 60% of the course grade.

<u>NOTE</u>: In order to take a test, each of the homework sets covered on the test must be completed with a grade of at least 80%. Otherwise MyMathLab will not allow you to open the test. <u>Deadlines for tests will not be extended for those who can't access the test due to unfinished homework.</u>

The final exam is scheduled for Wednesday, July 5. The final will be cumulative. The grade on the final exam may also be used to replace your lowest chapter/unit test grade, if it is to your advantage.

Your course grade at any time may be found in MyMathLab, which will keep a running average of all your tests and the homework sections that you have attempted. Caution: since it is possible to work homework after the due date (for a penalty), the homework grade in MyMathLab will not include 0's for homework not yet attempted, until the very end of the course. If a student has past-due homework sets, the homework and course average will appear higher than they really will be if the work is not done by the semester's end.

The letter grade in the course will be based on the customary 90-80-70-60 scale.

Late Work, Attendance, and Make Up Work Policies:

Homework over a unit (chapter or group of chapters) is due the day of the test over those chapters. Since one of the primary purposes of the homework is to prepare you for the test, late homework will be penalized 5% per day of the credit on the problems submitted late. (The penalty will not be applied to any problems in a set that are submitted on time, but only to problems in the set that are submitted late.)

Your attendance will be based on your activity in MyMathLab and participation in face-to-face class meetings (and Zoom sessions, if applicable). If seven consecutive days elapse with no activity from a student, that student will be dropped from the course for non-attendance. If there is sporadic activity in MyMathLab, and the student falls more than a week behind in assignments, that will also be taken as an indication that the student does not intend to pursue the course to completion, and the student will be dropped for non-attendance. If a situation arises that requires you to be inactive for more than just a day or two, please contact the instructor and discuss the situation, so that you are not otherwise dropped for non-attendance.

If you miss taking one unit test during its window of availability, the grade on the final exam can count to replace that missing test grade. (It will also count as the final.) If you have missed more than one test, only one of those missing grades can be replaced by the final. If you miss the final, the course grade will be calculated with a 0 in its place. (There are no exemptions from the final. Please do not miss the final!)

Student Behavioral Expectations or Conduct Policy:

Students are expected to be courteous and respectful of their classmates and of instructors at all times. This includes, but is not limited to, the following.

For face-to-face meetings:

- Be respectful of the personal space of others
- If you are ill or have any symptoms of any illness (not limited to Covid), do not come to school.
- Arrive in the classroom on time; be as unobtrusive as possible if tardy.
- Silence or turn off cell phones and other communication devices during all regular class periods. (During tests, these devices should not be present at all. If you access your phone during a test, you are automatically finished with your test and must turn it in immediately.)
- Save private conversations with other students for before/after class lectures.
- Do not bring children to class nor leave them unattended on campus. To do so is contrary to school policy.

- Do not use excessive amounts of fragrance. Doing so is grounds for being required to leave.
- You may not share calculators on a test.

For Zoom meetings, if any occur:

- Familiarize yourself with Zoom's features
- Please do participate in the class meetings. It's fine to have your mic on and ready for interaction, but mute yourself if the dog or children or other background noise would disrupt us.

• Please use your webcam if you have one. Let me, as well as your fellow classmates, know who is in this course with us. But be mindful of your surroundings when your webcam is on. If necessary or desirable, use a non-distracting virtual background; Zoom provides that option.

- Dress appropriately for class.
- Once the lecture gets going, stick to the topic at hand, just as you would for a face-to-face lecture class. Avoid doing other tasks, checking email, being on the phone, or the like.

• Do not use coarse or foul or offensive language, nor offensive or questionable imagery. Violation of this would be grounds for disciplinary action, including (but not limited to) being dropped from the course.

• Remember that the session is being recorded.

MCC Academic Integrity Statement:

The Center for Academic Integrity defines academic integrity as "a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. From these values flow principles of behavior that enable academic communities to translate ideals into action." Individual faculty members determine their class policies and behavioral expectations for students. Students who commit violations of academic integrity should expect serious consequences. For further information about student responsibilities and rights, please consult the McLennan website and your Highlander Student Guide.

For more information, see https://www.mclennan.edu/academic-integrity

Collaboration on out-of-class assignments is encouraged, but at no time should work belonging to one student be in the possession of another student. Likewise, students are not to engage in cheating in any form during or in preparation for tests or the final exam. All students involved in a cheating incident, whether in providing or receiving assistance, will receive grades of 0 for that assignment, be reported to Student Development, and find their names placed in the MCC

database for cheating incidents. If there is a second incident, all students involved will be dropped from the course with grades of F and listed as repeat offenders in the database.

<u>Click Here for the MCC Attendance/Absences Policy</u> (https://www.mclennan.edu/highlander-guide/policies.html)

Click on the link above for the college policies on attendance and absences.

Updated 11/04/2022

COMMUNITY COLLEGE

ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu 254-2998122 Room 319, Student Services Center

<u>Title IX:</u>

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the acting Title IX Coordinator at <u>titleix@mclennan.edu</u> or by calling, Dr. Claudette

Jackson, (Diversity, Equity & Inclusion/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <u>http://www.lighthouse-services.com/mclennan/</u>.

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Go to McLennan's Title IX webpage at <u>www.mclennan.edu/titleix/</u>. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at http://www.mclennan.edu/campus-resource-guide/

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom from 7:30 am - 6:00 pm Monday through Thursday and 7:30 am - 5:00 pm on Friday. You can contact the Academic Support and Tutoring team via Zoom (https://mclennan.zoom.us/j/2542998500) or email (ast@mclennan.edu) during the above mentioned times.

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to <u>https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg</u>. Both the Completion Center and Paulanne's Pantry are located on the second floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to

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https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:

Go to <u>www.mclennan.edu/academic-integrity</u> for information about academic integrity, dishonesty, and cheating.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <u>https://www.mclennan.edu/center-for-teaching-and-</u> <u>learning/FacultyandStaffCommons/requirements.html</u> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<u>http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf</u>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to <u>www.mclennan.edu/studentemail</u>.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email <u>Helpdesk@mclennan.edu</u> for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

Email Setup for iPhones and

iPads •

Email Setup for Androids

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to <u>MCC's Tech Support</u> <u>Cheat Sheet</u> or email <u>helpdesk@mclennan.edu</u>.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.