



WACO, TEXAS

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**COURSE SYLLABUS  
AND  
INSTRUCTOR PLAN**

**Calculus II  
Math 2414. 05**

**Peter Blaskiewicz**

**NOTE: This is a 6-week (Summer I session) course.**

**NOTE: This is an online course, with class meetings using Zoom.**

Calculus II  
MATH 2414.05

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**Course Description:**

Building on the Calculus I background, additional differentiation and integration techniques and more advanced applications of the definite integral are presented. Other topics are introduced and their applications investigated, including improper integrals, parametric equations, polar coordinates, and infinite sequences and series. Graphing calculator required.

**Prerequisites:**

Math 2413 (Calculus II with a grade of C or better)

**Course Notes and Instructor Recommendations:**

*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.

**\*\*\* Note about this summer version of the class \*\*\***

I will be holding class sessions in Zoom each morning, MTWTh, from 11:00 a.m. till 1:45 p.m. The URL will be posted in this course's Brightspace shell. I strongly encourage you to attend and be an interactive class, for several reasons. For one thing, it will help make the material more immediate and relevant, and you can get your questions resolved right away if you are there 'as it happens.' Also, I will be able to tailor the lessons to your level of understanding if I have an audience to 'read.'

A few of you have let me know that you have to work at that time. The Zoom sessions will be recorded, and links to each video will be posted in Brightspace soon after the class meeting is over (hopefully within 15 minutes or so, but in any case by mid-afternoon). If you miss a class meeting, it is expected that you will watch the video later that day and try your hand at the homework assignment, so that you are ready for the next lesson and don't get behind. (The material does build on itself.)

I will be available for individual Zoom chat sessions / 'office hour' by arrangement, especially if you cannot come to one of the regular class sessions. I request that you first watch the video over the missed class, so that we are not reinventing the wheel. The best way to arrange a Zoom meeting is by emailing me with a suggestion of a time or two that would work for you; if you call me, a voice message would go to my email box anyway. If you are someone whose work schedule seldom or never allows you to attend the Zoom classes, I will expect you to meet with me occasionally in Zoom at other times so that I can know who my students are.

**Instructor Information:**

Instructor Name: Peter Blaskiewicz  
MCC E-mail: [pblaskiewicz@mclennan.edu](mailto:pblaskiewicz@mclennan.edu)  
Office Phone Number: (254) 299-8869  
Office Location: MATH 213  
Office/Teacher Conference Hours: MTWTh after 2:30 p.m. by arrangement via email  
( Office Zoom: <https://mclennan.zoom.us/j/2542998869> by prior email arrangement

**Required Text & Materials:**

MyMathLab electronic access from the publisher (Pearson) using the textbook listed below (or a code to obtain access if you do not have access linked to this text). The course ID will be given to you in Brightspace, or you may email the instructor after you have registered for the course.

The printed version of the text is optional:

Title: Thomas' Calculus - Early Transcendentals (14th Edition)  
Author: George Thomas, Maurice Weir, Joel Hass  
Edition: Fourteenth (2018)  
Publisher: Pearson – AddisonWesley  
ISBN: 978-0-13-443902-0 (for optional printed text)

A graphing calculator. The TI-84 or TI-83. (The TI-89 or TI Nspire or any other calculating device with a computer algebra system will **not** be allowed in this course.)

**MCC Bookstore Website:** <http://www.mclennan.edu/bookstore/>

**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/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources, we encourage you to contact a success coach by calling (254) 299-8226. Students can visit the Completion Center Monday-Friday from 8:00 a.m.-5:00 p.m. to meet with a success coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) is open 12:00 p.m.-1:00 p.m., Monday-Friday, without an appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

**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 contacted/notified through 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.

\* [Click Here for the Minimum System Requirements to Utilize MCC's D2L/Brightspace](https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html)  
(<https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html>)

Click on the link above for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

### **Methods of Teaching and Learning:**

Lecture online using Zoom with 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 this course, students will be able to:

1. Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.
2. Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of antiderivatives to evaluate definite and indefinite integrals.
3. Define an improper integral.
4. Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.
5. Determine convergence or divergence of sequences and series.
6. Use Taylor and MacLaurin series to represent functions.
7. Use Taylor or MacLaurin series to integrate functions not integrable by conventional methods.
8. Use the concept of polar coordinates to find area, lengths of curves, and representations of conic sections.

### **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.*

Date	Section	Topic
July 8 (W)	6.1 – 6.2	Review of Integration; Volumes Using Cross-Sections; Volumes Using Cylindrical Shells
July 9 (Th)	6.3 – 6.5	Arc Length; Areas of Surfaces of Revolution; Work and Fluid Forces
July 13 (M)	6.6	Moments and Centers of Mass
July 14 (T)	7.1	Test 1 (Ch 6) The Logarithm Defined as an Integral
July 15 (W)	7.2 – 7.3	Exponential Change and Separable Differential Equations; Hyperbolic Functions
July 16 (Th)	7.4; 9.1	Relative Rates of Growth; FOLDE Solutions, Slope Fields, and Euler's Method

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July 20 (M)	9.2 – 9.4	First-Order Linear Equations; Applications; Graphical Solutions of Autonomous Equations
July 21 (T)	8.1 – 8.3	Test 2 (Ch 7 and 9); Integration by Parts; Trigonometric Integrals
July 22 (W)	8.4	Trigonometric Substitution; Integration of Rational Functions by Partial Fractions
July 23 (Th)	8.5 – 8.7	Integration of Rational Functions by Partial Fractions; Integral Tables and Computer Algebra Systems; Numerical Integration
July 27 (M)	8.8	Improper Integrals
July 28 (T)	10.1	Test 3 (Ch 8); Sequences
July 29 (W)	10.1 – 10.2	Sequences; Infinite Series
July 30 (Th)	10.3 – 10.5	The Integral Test; Comparison Tests; The Ratio and Root Tests
August 3 (M)	10.6 – 10.7	Alternating Series, Absolute and Conditional Convergence; Power Series
August 4 (T)		Test 4 (Ch 10.1 – 10.6)
August 5 (W)	10.8 -- 10.9	Taylor and Maclaurin Series; Convergence of Taylor Series
August 6 (Th)	11.1 – 11.2	Parametrizations of Plane Curves; Calculus with Parametric Curves
August 10 (M)	11.3 – 11.5	Polar Coordinates; Graphing in Polar Coordinates; Areas and Lengths in Polar Coordinates Review for Final Exam
August 11 (T)		Final Exam – cumulative

### **Course Grading Information:**

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

Homework	20%
Classwork and Participation	5%
Tests        projected 4 @ 15% (if other, the weights will total 60%)	60%
Final Exam (cumulative)	15%

Homework will be assigned and worked online using MyMathLab (<http://www.mymathlab.com/>). The deadline for each set of homework will be the scheduled time of the test over the sections covered by the homework.

We will be covering chapters 6 through 11 of the text. There will be a test over approximately each chapter. They will have a time limit, and they must be completed within a specified window (a day or a couple of days). The tests will all be weighted equally, with all the test weights equal to 60% of the course grade.

**NOTE:** In order **to take a test** (or the final), 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. Deadlines for tests will not be extended for those who can't access the test due to unfinished homework.

The final exam will be cumulative. It is scheduled for Tuesday, August 11. Please plan accordingly. Your grade on the final may also count in place of your one lowest test grade, if that 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 'classwork and participation' part of your grade is a bit subjective, but it will generally be either 5 or 0. You earn these points by being present and interacting in the Zoom lessons or meeting with me in Zoom office time. If at the end of the semester the only thing I know about you is that your name showed up in a silent black box in Zoom, then no participation credit is due you. Please come, please have your webcam on, and please be ready to unmute your mic and comment or ask questions as appropriate. Be an active member of the class.

The letter grade received in this 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 Zoom class sessions or 'office meetings' with the instructor. 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 chapter test during its announced window, 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. (Please do not miss the final!)

### **Student Behavioral Expectations:**

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:

- 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 more information, [click here for the MCC Academic Integrity Statement](http://www.mclennan.edu/academic-integrity) ([www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity))

### **Academic Integrity Statement addendum:**

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.

### **MCC Attendance Policy:**

Regular and punctual attendance is expected of all students, and each instructor will maintain a complete record of attendance for the entire length of each course, including online and hybrid courses. Students will be counted absent from class meetings missed, beginning with the first official day of classes. Students, whether present or absent, are responsible for all material presented or assigned for a course and will be held accountable for such materials in the determination of course grades.

Please [click here for the MCC Attendance/Absences Policy](#)  
([www.mclennan.edu/highlander-guide/policies](http://www.mclennan.edu/highlander-guide/policies)) for the complete policy.

### **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. Instructors should not provide accommodations unless approved by the Accommodations Coordinator. For additional information, please visit [mclennan.edu/disability](http://mclennan.edu/disability).

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

[disabilities@mclennan.edu](mailto:disabilities@mclennan.edu)

254-299-8122

Room 319, Student Services Center

### **\* [Click Here for more information about Title IX](#)**

([www.mclennan.edu/titleix](http://www.mclennan.edu/titleix))

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 unwelcome behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at [titleix@mclennan.edu](mailto:titleix@mclennan.edu) or by calling Dr. Drew Canham (Vice President for Student Success) at 254-299-8645. Individuals also may contact the MCC Police Department at 254-299-8911 or the MCC Student Counseling Center by calling 254-299-8210. The MCC Student Counseling Center is a confidential resource for students.

McLennan's Title IX webpage (<http://www.mclennan.edu/titleix/>) 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.