



Math192.001 Calculus II

COURSE SYLLABUS: Fall 2015

Instructor: Rebecca Dibbs, PhD

Office Location: 303 Binnion

Office Hours: M-R 7:30 -8:00 or by appointment

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COURSE INFORMATION

Materials

Textbook(s) Required: Calculus, 7th Edition, by James Stewart. We will study Chapters 5, 6, 7, 11 and parts of 8 and 10. We may occasionally cover enrichment activities not in the text.

Optional: How to Ace Calculus/How to Ace the Rest of Calculus by Adams et al. Calculus II is split between the two books, but used copies can generally be found for under \$5 on Amazon.com.

Course Description: This course examines integral calculus of functions of one variable, and some integral calculus of functions of two variables, as follows. Topics include techniques of integration; applications of the integral; improper integrals; limits involving indeterminate forms; sequences and series; some exposure to multiple integrals; and use of computer technology. Prerequisite: MATH2413, Calculus I

Student Learning Outcomes

1. Students will demonstrate proficiency in the use of mathematics to structure their understanding of and investigate questions in the world around them.
2. Students will demonstrate proficiency in treating mathematical content at an appropriate level.
3. Students will demonstrate competence in the use of numerical, graphical, and algebraic representations.
4. Students will demonstrate the ability to interpret data, analyze graphical information, and communicate solutions in written and oral form.
5. Students will demonstrate proficiency in the use of mathematics to formulate and solve problems.
6. Students will demonstrate proficiency in using technology such as handheld calculators and computers to support their use of mathematics.

Student Assessment Outcomes

1. Critical Thinking: The above learning objectives will be assessed for critical thinking in labs and other classroom activities.
2. Written, Oral, & Visual Communication: Students will be assessed on written, oral, and visual communication skills on their quizzes, exams, labs, and lab jigsaw activities.
3. Empirical and quantitative reasoning: All assessments in this course will contain a quantitative reasoning and empirical computation component.

COURSE REQUIREMENTS

Course Activities

Videos: This is a flipped class, which means class time will be used for working problems rather than lecture. You are expected to watch all of the posted videos before the class that covers those topics.

Video Check: To ensure that you are prepared for the lab, there will be an open note quiz from 8:00-8:15 am every day there is not a test. The quiz ends promptly at 8:15, and makeup quizzes are only permitted under the guidelines of the late work policy. Your lowest two grades will be dropped.

Teams: Calculus II is arguably the most difficult course in a math major, and this summer course is completed at triple the time of a normal course. In order to maximize your chances of success, you have been assigned to teams of 3-4 students. Where possible, you have been placed with other students in your major. Any requests to change initial teams must be made in writing by the end of the second day of class. The instructor reserves the right to rearrange teams, but will do so as little as possible. Your team will be expected to

Labs: Every day in class, we will be working on labs. Labs will consist of a mix of problem sets and activities to help you master the material. Labs are due the day after the day you work on them in class; however, labs will be almost if not entirely completed during class time. On each lab, one member of your team will be randomly selected to turn in their writeup; that write-up will be graded for the group. Ten random problems from each lab will be graded on a 2 point scale.

Quizzes: The day after each lab is due (So not Day 1, Day 2, Day 10 & Day 20), there will be a quiz over the material in the lab. These quizzes will occur in the last half hour of class or whenever your entire team completes the lab, whichever comes soonest. In order to begin a quiz early, your team must turn in that day's lab. This quiz will be an individual quiz.

Attendance: Attendance is mandatory and graded. If you are not in class, not an active group member, or leave early, you will be marked absent for the day. Excessive tardiness may also result in an absence.

There are no excused absences and no makeups of missed assignments. If for whatever reason you are unable to attend every scheduled class period of this class, you may wish to consider dropping the course. Missing 1 class in a summer session is the equivalent of missing a week of instruction during a regular semester.

Homework: Since this is a flipped classroom, all of the problems that would normally have been done as homework in a traditional class will be done as labs in class. Your responsibility outside of class is to watch the videos, take notes on the videos, and to finish any lab you do not complete in class.

The key to success in this course is regularly working with other students in the class and asking questions when you have them!!! We will discuss lab problems in class, but there will often not be enough time to discuss all of them. Please come to office hours or visit the math tutoring lab if you have additional questions about the lab.

Exams: There will be a midterm and a final in this class. See course calendar for dates.

Workload and Assistance: You should expect to spend a **minimum of TWO HOURS every day**, outside of class, on the course material. This includes watching the videos, labs, and studying for quizzes and exams. Some weeks (those in which an exam is scheduled, for instance) may require more of your time, other weeks may require less, but *on average*, budget 8 to 12 hours each week. **I can't stress enough that in order to be successful in this class you should spend much of this time working with other students in the**

class! Please ask questions and seek assistance as needed. You may email me at any time, and I encourage you to make use of my office hours

GRADING

This class will be graded on a total points system. 1300 points are possible in the class. Assignments are weighted in the following manner:

Assignment	Total Points Possible
Video Check (Best 16)	160
Quizzes	320
Labs	360
Midterm; Final	400; 500
Attendance/Participation/Professionalism	180
Final	1920

All point totals will be rounded to the nearest whole points before grades are assigned point ranges for final grades will be as follows:

A: 1728-1920 points

B: 1536-1727 points

C: 1344-1535 points

D: 1152-1343 points

F: 0-1151 points

TECHNOLOGY REQUIREMENTS

Use of a graphing calculator having at least the capabilities of the TI-83 will be helpful throughout the course. TI-89 is highly recommended. A computer algebra system will be used for some problem exploration, enhanced conceptual understanding, and to engage students as active participants in the learning process. **NOTE: There will be a portion of the midterm and final where no calculators will be permitted.**

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

My primary form of communication with the class will be through Email and Announcements. Any changes to the syllabus or other important information critical to the class will be disseminated to students in this way via your official University Email address available to me through MyLeo and in Announcements. It will be your responsibility to check your University Email and Announcements regularly.

Students who Email me outside of regular office hours can expect a reply within 24 hours M-F.

Students who Email me during holidays or over the weekend should expect a reply by the end of the next regularly scheduled business day.

myLeo Support

Your myLeo email address is required to send and receive all student correspondence. Please email helpdesk@tamuc.edu or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at <https://leo.tamuc.edu>.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures

Academic Honesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including (but not limited to) receiving a failing grade on the assignment, the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. In **ALL** instances, incidents of academic dishonesty will be reported to the Department Head. Please be aware that academic dishonesty includes (but is not limited to) cheating, plagiarism, and collusion.

Cheating is defined as:

- Copying another's test or assignment
- Communication with another during an exam or assignment (i.e. written, oral or otherwise)
- Giving or seeking aid from another when not permitted by the instructor
- Possessing or using unauthorized materials during the test
- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key

Plagiarism is defined as:

- Using someone else's work in your assignment without appropriate acknowledgement
- Making slight variations in the language and then failing to give credit to the source

Collusion is defined as:

- Collaborating with another, without authorization, when preparing an assignment

If you have any questions regarding academic dishonesty, ask. Otherwise, I will assume that you have full knowledge of the academic dishonesty policy and agree to the conditions as set forth in this syllabus.

Late Policy: Late work/Make-ups will not be accepted without a documentable and valid excuse, because the lowest grade(s) in each category is dropped. Examples of documentable and valid excuses include:

- *car accident w/ police report
- *illness w/ doctor's note (you or your child)
- *athletic or other mandatory extra-curricular travel
- *field trip for another class
- *being detained upon entering the country by Homeland Security

University Specific Procedures

ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct* from *Student Guide Handbook*).

COURSE OUTLINE / CALENDAR

Note: **BOLD** indicates an assignment that is due at the start of class

Monday	Tuesday	Wednesday	Thursday
Calc Review/5.1: LAB 1 VC 1	5.2/5.3: LAB 2 VC 2 LAB 1	5.4: LAB 3 VC 3 LAB 2 QUIZ 1	5.5/6.1/6.5: LAB 4 VC 4 LAB 3 QUIZ 2
6.6/6.8: LAB 5 VC 5 LAB 4 QUIZ 3	7.1/7.2: LAB 6 VC 6 LAB 5 QUIZ 4	7.3: LAB 7 VC 7 LAB 6 QUIZ 5	7.4/7.5/7.6: LAB 8 VC 8 LAB 7 QUIZ 6
7.7/7.8: LAB 9 VC 9 LAB 8 QUIZ 7	MIDTERM LAB 9	8.1/8.2: LAB 10 VC 10 QUIZ 8	10.1/10.2: LAB 11 VC 11 LAB 10 QUIZ 9
10.3/10.4: LAB 12 VC 12 LAB 11 QUIZ 10	11.1/11.2: LAB 13 VC 13 LAB 12 QUIZ 11	11.3/11.4: LAB 14 VC 14 LAB 13 QUIZ 12	11.5/11.6/11.7: LAB 15 VC 15 LAB 14 QUIZ 13
11.8: LAB 16 VC 16 LAB 15 QUIZ 14	11.9: LAB 17 VC 17 LAB 16 QUIZ 15	11.10/REVIEW: LAB 18 VC 18 LAB 17 QUIZ 16	FINAL EXAM LAB 18