

MATH 1B SECTION 1 CRN 45429 MATH1BH SECTION 1 CRN 47461

Instructor: Dr. Zack Judson

Office Hours: TWThF 10:30-11:20

Prerequisite: Math 1A

Required Materials

- 1) "Calculus Early Transcendentals, 8th Edition" by James Stewart
- 2) Calculator: TI83/84 graphing calculator or similar

Accommodations

Those of you who need additional accommodations, due to disability, campus-related activities, or some other reason, please meet with me during the first two weeks of class to discuss your options.

Office Hours

My office hours will be held Tuesday through Friday from 10:30 to 11:20 am. Due to our current status, these office hours will be held online via Zoom.

Grading Scale

Due to the complexity of the material the grading scale we will use is as follows

A :90–100 B+: 80–84 C+: 67–69 D : 50–59 F : 0–49
A–: 85–89 B : 75–79 C : 60–66
B–: 70–74

Honors

If you are taking the honors section of this course you will be required to do the honors problems on the homework assignments. You will also complete an honors project. The honors project will be similar to a lab assignment except that you will complete it individually. Your grade on the honors assignments will replace your group work grade.

Midterms

Four exams will be given with no make-ups. Each exam will be worth 10% of your grade. These exams will be taken synchronously, that is to say they will take place during our class meeting time. The midterm will become available at 7:20. You will have until 8:20 to answer all of the questions, if you are unable to answer the question you must briefly state what you tried.

After you have finished the exam you will have until noon to upload a **pdf** of your solutions. If the work you upload does not match your answers you will score a zero for that problem. The bulk of your grade on the exam will be based on the work you show to justify your answers.

If an exam is missed under extreme circumstances and for a very valid reason, an equivalent of the final score will replace the missing exam score. If such extreme circumstances occur it is the students responsibility to inform me immediately and provide documentation of the circumstances.

Final Exam

A two-hour comprehensive final exam will be given on Monday, June 21 from 7 to 9 am. Like our midterms the final will take place synchronously. The final will follow the same format as our midterms. As with the midterms, you will have until noon to upload a **pdf** of your work. The final will represent 20% to 40% of your grade. (see quizzes below)

Quizzes

Quizzes will represent up to 20% of your grade. However, all points that are missed on quizzes will be replaced by your final. For example if you average a 60% across all quizzes and then score a 75% on the final, you will earn back 75% of the points you had missed on quizzes so that your final quiz score will be a 90%. In this way quizzes are designed to be a place where you can make mistakes and learn from them. As with your midterms, you are expected to do your own work on quizzes. However, unlike midterms, quizzes will be given asynchronously. On the day a quiz is assigned, you can click on the quiz at any time. The quizzes are designed to be completed in 20 minutes. You will have 40 minutes to answer the questions and upload a pdf of your solutions. You must upload your solutions before midnight. **Due to the fact that all missed points are covered by the final, quizzes will only be graded if they are submitted as a pdf through the CANVAS quiz.**

Labs

A half dozen times throughout the quarter we will have lab assignments. The intention behind lab assignments is to encourage students to think more deeply about the material. These labs will be worked on in groups of three or four. You will need to work on them outside of class to complete them. Although every student must turn in their own lab assignment, you will be graded as a group on the assignment. No late lab assignments will be accepted. Each Lab will be graded out of 100 points.

In addition each Lab will have a Lab discussion worth 10points where you will document your interactions with your group. This discussion will be graded both for the work you share with the group and for your responses to the posts of other group members. You are more than welcome (and even encouraged) to interact with your group in other ways; however, you need to make sure to document this interaction on your discussion board. This documentation needs to show what interactions are happening in your group. Bad example: "we met in zoom today and did the lab" Good example: attach a transcript of the meeting.

Approximately two days before the lab is due, we will have a lab check-in day. You must upload a rough draft of your lab to your discussion page prior to the check-in. The rough draft is worth 10 points and will only be graded on effort. Labs will represent 10% of your grade. Your lowest total lab score will be dropped.

Group Work.

In my experience, every calculus class understands the lecture right up until the point they have to work through a problem. To help facilitate this process, approximately once a week, we will separate into breakout rooms and work with our classmates on a worksheet. This is both a synchronous and asynchronous assignment. During class time you will discuss the problems with each other. For each group work assignment there will be a discussion board. You will have until noon the following day to complete the discussion board.

The discussion board will be the place for you to share your work with each other. This is a place to propose a solution, an idea about how to begin the problem or a specific question that is troubling them about the problem. The discussion board will be graded both for the work you share with the group and for your responses to the posts of other group members. The synchronous portion of the assignment will be graded out of 3 points and the discussion board will be graded out of 5 points. Group Work will account for 10% of your total grade.

Student Learning Outcome(s):

*Analyze the definite integral from a graphical, numerical, analytical, and verbal approach, using correct notation and mathematical precision.

*Formulate and use the Fundamental Theorem of Calculus.

*Apply the definite integral in solving problems in analytical geometry and the sciences.