



Math 3B – Calculus II – 40757
Fall 2020

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Office: C-110



Welcome to Calculus II !

Hi Everyone!

Welcome to Math 3B, Calculus II. I am very excited to help you on your educational journey in learning math this semester. It was always a struggle for me as a student learning math and I have many stories on why. But learning math can be fun and fulfilling if you give it a chance! ☺

It is from my own learning experiences that I try to base my teaching style to be more helpful in guiding students so that it is not so much a struggle learning math, but more a fun and productive challenge.

This course is a continuation of MATH-3A. Techniques and applications of integration in geometry, science and engineering will be explored. Work with algebraic and transcendental functions will be continued. Other topics will include numerical methods in evaluation of the integral, infinite series, solving differential equations, applications of differential equations, polar coordinates, parametric equations and conic sections.

Math can be challenging, but with regular practice and hard work, everyone can be successful! ☺

Please feel free to drop by my office in C-110 if you need anything.

You can also schedule a virtual meeting with me if you like. Just send me an email to set up a day and time. Then I will respond with a confirmation and you just have to visit this link
<https://cccconfer.zoom.us/j/7127161669>

This link is also on CANVAS. ☺



Calculus II

• Class Meetings

ONLINE

- Note: There will be a few optional in person meetings for Checkpoints (See Checkpoint section)

• Office and Office hours

Office Hours Online(via zoom):

Mondays: 9a – 10a, 6p – 7p

Tuesdays: 9a – 10a, 6p – 7p

Wednesdays: 9a – 10a, 6p – 7p

Thursdays: 9a – 10a, 6p – 7p

You can also schedule an appointment as well, just email me.

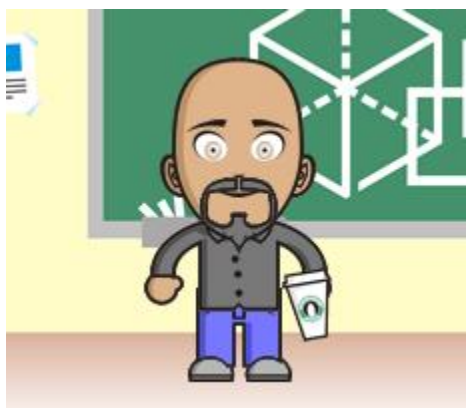
- To get the most out of this class students will want to have:

Pencil, pen, & eraser

Paper for Homework

Binder for organizing handouts

Scientific Calculator (these can be checked out at the library as well)



Calculus II

Student Learning Outcomes

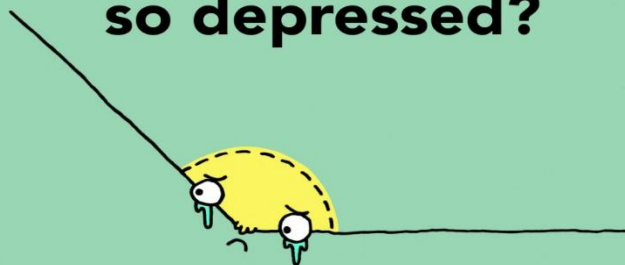
- A. Use integration by parts and partial fraction decomposition.
- B. Analyze real world applications using Taylor polynomials.
- C. Formulate integrals for lengths of curves, areas, and volumes.



Discussions (75 points)

Since this is an online course, there is minimal contact with other students. But it is always recommended for students to discuss with their peers in any class. So to encourage this in an online setting, there will be discussions on each packet of notes of which you will get points for. Posting regularly can help students clear up many questions you may have and possibly help you have a deeper understanding of the math we are doing in the class, as well as getting to know some of your peers in the class. Remember, you are all in this together and it is okay (and highly recommended) to talk to each other and help each other out.

Why are obtuse angles so depressed?



Because they're never *right*.

Video Reflections (60 points)

Each week I will hand out packets with topics and problems on them. You will be expected to watch videos and take notes in the Packets. Part of your homework will be to take notes by watching the videos on CANVAS.

In order to receive points on taking notes and watching the videos, you will need to fill out a "video reflection" quiz on CANVAS.

It is **VERY** important to watch videos and take notes before their corresponding due dates, since we will be working on problems that relate to notes in class.

Note: The main purpose of the videos is to write ALL notes down. It is not expected to understand everything from the videos after watching them. So be sure to highlight and write down any questions you may have as I will briefly go over these packet notes in class.



PUNS
@ThePunnyWorld

There's a fine line between a numerator and a denominator.

Only a fraction of people will find this funny.

Homework (250 points)

All assignments will be done through CANVAS. To access these assignments, you just need to log into CANVAS and click on the “modules” tab. All the assignments and their due dates are located here. To receive full credit, all you need to complete is 70% of each assignment. It is very important to be on top of the HW assignments, but it is also unrealistic to assume that students can complete all the HW by the due date. So you will be able to work on assignments after the due dates, but know that all assignments should at least be attempted by the due date. I would recommend trying to finish 50% by the actual due dates, then save the rest to practice before the final exam about a month before our final exam. Below is how I would suggest students to approach the HW.

Homework suggestions:

- 1) As soon as you get notes, or even better, before you even take notes on the topic on a certain topic, make sure to read through the HW on that particular topic and attempt any that may seem pretty simple.
- 2) Before the exam on that topic, go over the HW again and focus on the ones that you didn't get right. You can always do problems over whether you get them right or wrong.
- 3) When it is time to start studying for the final exam (about a month before), go over the HW again and try and finish any other problems up.

Doing the homework in this way will increase the likelihood that you will get the needed 70% or higher needed to get full credit. 😊

In order to be on track with class, make sure you are regularly/daily working on math. Students are expected to work on math outside of class two hours for every hour spent in class. Which means at least 10 hours of math outside of class.

TEXT

Calculus, Volume 2 from Openstax <https://openstax.org/subjects/math>

Note: An actual book is not required for purchase, once you enroll in CANVAS, you automatically have access to all the necessary materials for the class. You can also order a hard copy of the book from the above website.

HOLY SHIFT! LOOK AT THE

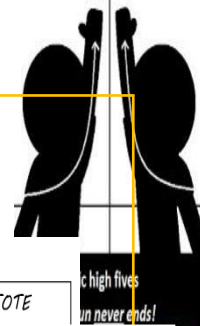
DISABILITY SUPPORT SERVICES

As much as I love math and hope that students do too, I do understand that there are many anxieties surrounding the subject that can make it more difficult to learn. It is a real thing and we can accommodate to anyone who has this issue.

Any student with a documented disability is encouraged to contact DSPS as early in the semester as possible so that we may arrange reasonable accommodations. I am more than happy to show anyone where this is as well. Everyone at the DSPS office is friendly and willing to help. As part of this process, please be in touch with DSPS. DSPS is located in D-117; their phone number is (510)748-2328.

ALL YOU NEED IS

$$y = \frac{1}{x}$$



STORIES

ASYMPTOTE



Always getting closer, but will never be together

SINE & COSINE



I SEE YOU HAVE
GRAPH PAPER

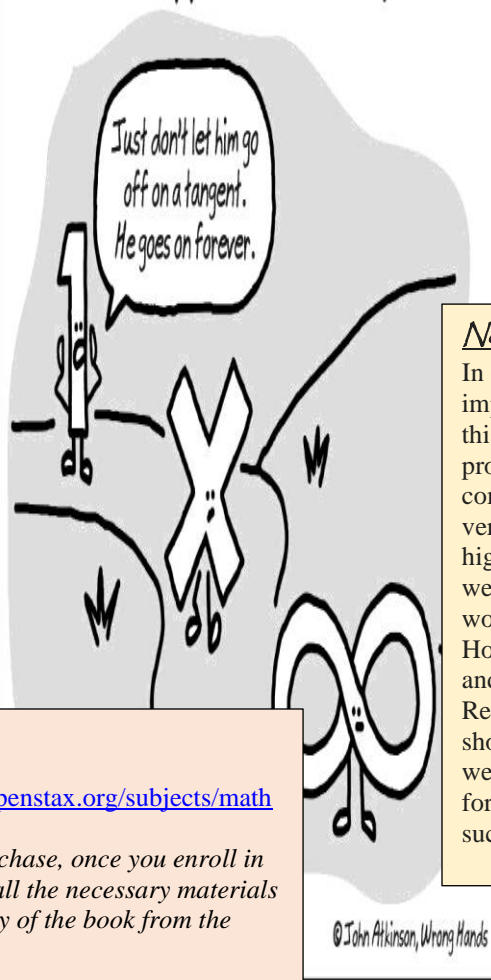
You must be plotting something.

To be together once, then drift apart forever

Keep falling in love, Forever

Math love stories [

as x approaches infinity



Note on regularity

In order to succeed in any course, it is important to keep up with everything. Since this is an online class, it is easy to procrastinate and wait until the last minute to complete work. This can potentially create a very stressful situation in the class. So I highly recommend that students create a weekly schedule for doing the work, and by work I mean Video Notes, Online Homework, Video Reflections, Discussions, and time for preparing for each Checkpoint. Remember, it is estimated that students should spend about 8 (maybe more) hours per week on this class. Keeping a set schedule for yourself will highly improve chances for success in the class. 😊

©John Atkinson, Wrong Hands

Checkpoints (500 points)

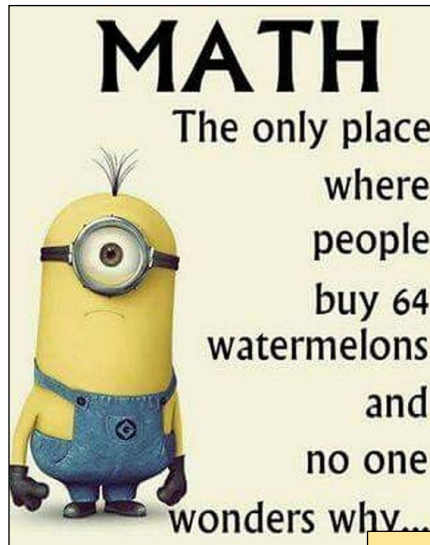
In order to see where students are at during the semester, there will be 4 checkpoints, worth 100 points each. These checkpoints are great learning points in the class. This is where you can learn how well you know certain topics in the class at a certain point. Also, this is an opportunity to reflect on your mistakes and review those mistakes. As well as reflect on your own study habits and possibly how to improve those study habits. I will post solutions on CANVAS for each of these checkpoints.

With these checkpoints, do not think you need to get everything correct. I expect mistakes, students learn by making mistakes and reflecting on those mistakes. Please see the checkpoint guidelines to see how to interpret results.

Checkpoints will be given about every three weeks. Please note that dates may change, but I will let you know ahead of time if they do.

Make-ups for Checkpoints are very unlikely, and are at my discretion.

Since this course is fully online, there are a few options and requirements for taking each checkpoint. Please see "Options for Online Checkpoints Using Zoom" in the Student Orientation section on CANVAS.



Tentative Checkpoint Dates:

Checkpoint 1: Thursday, September 10
Checkpoint 2: Thursday, October 1
Checkpoint 3: Thursday, October 22
Checkpoint 4: Thursday, November 12
Checkpoint 5: Thursday, December 3

Note: It is important to attend all of these dates. If you have a conflict with one or more of these dates, please let me know ASAP. The earlier I know about a potential conflict, the more likely I can accommodate.

Checkpoint Guidelines:

88 – 100 points (Well prepared and understands material)

76 – 87 points (prepared and understands material)

64 – 75 points (understands material, but probably could improve on little mistakes and study habits)

50 – 63 points (can improve on study habits, but understands material)

Below 50 points (need to improve study habits)

Point Breakdown

Total Homework Points = 250 (6.5 points each)

Total In Discussion = 40 (2 points each)

Video Reflection Points = 60 (3 points each)

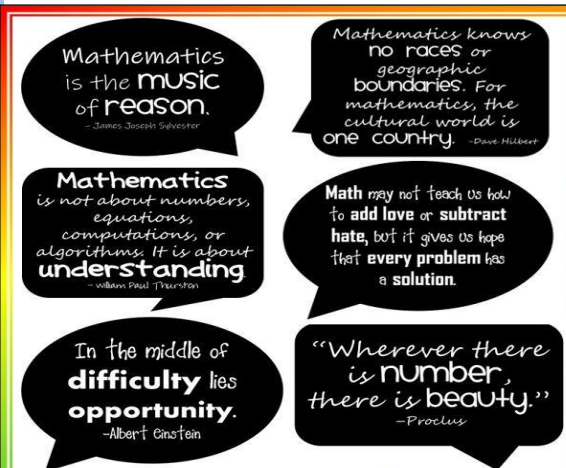
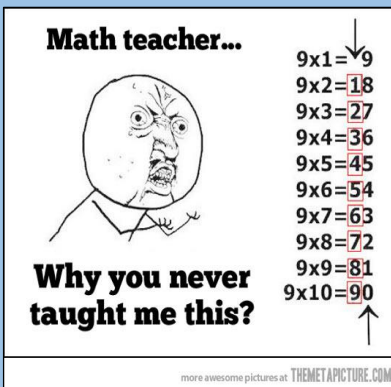
Total Checkpoint Points = 500 (100 points each)

Final Exam = 150

Total Possible Points = 1000

Grading:

895 points – 1000 points : A
795 points – 894 points : B
695 points – 794 points : C
595 points – 694 points : D
Below 595 points : F



Final Exam (150 points)

The final exam is on Thursday, December 17, and students will have a window of logging into CANVAS to take it from 10am – 6pm. If you have a conflict with this day/time, let me know ASAP so we may discuss other options. The final is cumulative. You should keep all your checkpoints and use them as a study tool.

Note: The final exam is a way for students to show me what they have learned. At this point, students

