





Calculus & Analytical Geometry II, MATH 2414, Fall 2022B

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1 Some Highlights

-  This file must be read on stand-alone Adobe reader, not in-browser, otherwise you will not see the included links. To get Adobe go to <https://get.adobe.com/reader> (uncheck bundled McAfee). Download this file. Go to download area. Right click and choose to open it in Adobe. You can search this file with CTRL+F.
- **Student-friendly policies:** We recognize that students face many challenges: all the traditional obstacles and now the new ones. Pandemic has made for a lost time, and has created educational deficiencies that are hard to compensate. Also taking online classes poses its own hardship. To make it possible for students to have a positive experience we instituted (a) “open notebook” exam policy (b) high percentage (50%) for homework as a curve (c) sectional exams similar to homework.
- **Course integrity policies:** To make sure students are rewarded for their hard work exams are monitored by HonorLock and streaming. Students stream their worktable using their phones and their computer using HonorLock and Blackboard Collaborate Ultra during exams.
- **“No Substitutions” policies:** Needless to say you are signing up for a mountain climbing expedition, and not for an Uber ride. This course has a speed factor of 2.5, and requires 180 hours of work. You need to make sure you are prepared for the upcoming challenges and are aware of all policies. This is a “No Substitutions” course and as such you want to ask all questions in advance. If a policy is not stated then do not “assume” it. Just to make sure we are on the same page, god rested after seven days but you need to work straight for thirty seven days before you rest. We have no holidays, either god or country! Items where more than a third of students fall short of the instructions are marked with a .



2 Contact Information, Emails, Appointments

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Office hours: I will respond to your emails asap during business hours. If you did not get a reply within 6 hours please resubmit. If you want to talk to me on Collaborate Ultra we can make an appointment.

For homework help also look at Tutoring.

⚠ When you send me email make sure to include your name and class name. Send it to Maesumi@Lamar.Edu only. Do not use reply button unless your email is related to the email you received.

Expect daily emails and announcements on WebAssign, Lamar, Blackboard.

3 Instructional Material: WebAssign, Videos, Text, Tutoring

- [WebAssign](#)

- WebAssign is required for this class. To gain access to your course material you need a WebAssign account and an access code. There, you get access to your text ebook, homework software, etc.
- Single-term access code is for one term. Multi-term access code is for several terms (usually two years). Most students take three semesters of calculus, i.e. I,II,III. However, not all instructors use WebAssign.
- There is a trial period so you can start on the first day. Cengage Refund Policy. This policy does not apply to third party sellers.
- If several courses in your schedule use Cengage Publications books then Cengage Unlimited Subscription Plan is likely to be to your advantage and may also offer a low-cost physical book rental.
- If you purchased a multi-term subscription for our calculus class recently then you may be able to continue using that.
- If you buy access code from a third-party seller make sure it is (1) unregistered (2) applicable to our textbook (3) for the duration you want. WebAssign Customer Service is not responsible for these access codes and WebAssign refund policy does not apply. Check access code search for textbooks .
- **WebAssign Registration Process**
Once class starts Go to WebAssign. (You can register early but the course shows once it starts.) Click on “ENTER CLASS KEY”, the gray box on upper right corner.
Enter “ lamar 4162 3406 ”, without the quotes, in the form.
Double check the response to make sure you are in “2414 (48F/10B), Fall 2022, Maesumi”.
Register only once, with name and ID number exactly matching your entry on class roll.
Turn on all notifications. Duplicate registration can lead to loss of points.
- Do a system check.



- Syntax help:
Familiarize yourself with WebAssign syntax. In particular inspect all elements of CalcPad. Some WebAssign tips are listed at Syntax Help 1 and Syntax Help 2.
- If you have a question about homework:
There is a button on WebAssign homework “Ask Your Instructor” next to each problem. Use it for asking questions instead of retyping the problem. If more input is needed then be prepared to email a PDF of your current solution to Maesumi@Lamar.Edu. Also look at Tutoring.
- Extensions:
Once a deadline passes you may request for an extension. There is a button next to homework list that you may use for automatic extension. Read the reply you get carefully. There are restrictions and a penalty applies.
- **WebAssign Homework Numbering**
A WebAssign homework number like CT12-L6a means the 12th homework of Calculus Two, which is tied to the Lecture 6a on YouTube.
- Scores: Next to each question on WebAssign there is a small green plus sign, click it to see the score distribution and other information.
- **Proof of work/PDF upload**
Each WebAssign assignment is to be done on paper *first*, showing all steps, then its image is to be converted to a PDF file. The PDF file is to be uploaded to WebAssign. Students are encouraged to maintain an orderly and effectively searchable homework notebook, as all exams are open notebook. Initially you are to see a score of 10 after a successful upload (if you see a 1 instead of 10 let me know). The final scores for these are at the discretion of instructor. If the submitted file is not to specifications then the WebAssign grade of the original homework might be lowered substantially.

- **Video Lectures**

- These are on Calculus II, YouTube PlayList .
- **Video Numbering**
A homework number like CT12-L6a means the 12th homework of Calculus Two, which is tied to the Lecture 6a on YouTube.

- **Textbook:**

- Calculus Early Transcendental Functions, Larson and Edwards, 7th edition, Cengage Publications. The ebook is part of WebAssign access code.
- Cengage page for the text. In some drop-down menus it may be abbreviated to ETF 7e.
- Older editions have a slightly different numbering but are perfectly good to have as a reference for offline reading. 6e, 5e.
- Publisher’s site for students: 4e



- [Tutoring:](#)

- The Math Shop, run by the Department of Mathematics, Lucas L211
- STAR, run by Gray Library
- SmarThinking, run by Pearson Publications, Online tutoring
- CalcView, by Cengage, online videos for problem solving
- CalcChat, by Cengage, solutions for certain homework problems
- Practice Another, feature on WebAssign allowing students to practice certain homework problems
- Ask Your Teacher, feature on WebAssign allowing students to ask for help on a specific homework problem

It takes time to get used to any of these systems. You want to try all options early in the semester to see the procedure and check for fit. If you do use them let us know about your experience on the Course Evaluation.

- [Additional Resources](#)

For recommended software, additional online classes, and other demos see my website.



4 PHQs (Placeholder Questions) in WebAssign

A PHQ is a simple questions on a WebAssign homework or test used for a purpose other than the math question itself. A PHQ is always a question from elementary or middle school (as in “What is $2-4+3$?” or “Which one is the graph of $y=2x+5$?”) whose answer and/or space is used for certain administrative or educational purposes.

For example a PHQ could be used to do an attendance check. I may ask what $2+2$ is, and from the answer I will know who is attending.

A PHQ is a basic hack that allows us to use WebAssign as an LMS (learning management system) and add some basic functionality. This helps us by simplifying our tasks, and prevents tedious back and forth between WebAssign and Blackboard.

PHQs may be used for:

- Taking attendance in meetings or in exams. In this case just answer the simple question as soon as possible.
- Collecting documents such as: profiles, screenshots of evaluation acknowledgement forms, letters (from coaches, employers, court, hospitals, doctors), schedules of classes or work. If you want to upload a document open the related PHQ, answer the simple math question and then use the upload mechanism in the question to upload the document.
- Making announcements to class. This is so that they are visible in the homework stream. Answer the simple question to acknowledge the announcement.
- **Uploading the handwritten work for a homework or test** (This is the main application).

Each math assignment is to be done on paper first, then its image is to be converted to a PDF, then uploaded to a corresponding PHQ assignment.

Next to each assignment there is a corresponding upload assignment. For example you might see the calculus questions in a homework, named say XY17, and right after that there will be an assignment named UP17. The handwritten work for XY17 will be a PDF file uploaded in UP17.

- Size limits: For each PHQ question you may upload 10 files, each up to 10Mb. In the rare case of a file bigger than 10Mb it must be broken into smaller pieces. On certain phones you may have to opt for small file size for pictures.



5 Making and Uploading PDF Homework

- Exams are open notebook. Therefore do your best to make an effectively searchable notebook. The following policies are to help you in this regard. To encourage students, and as a grade curve, your homework counts for 50% of the total course grade.
- Each math homework or test must be handwritten on paper first, then an image of the work is to be converted to PDF and the uploaded to a PHQ assignment.
- Software/APP/Hardware: There are many phone apps for making a PDF file out of pictures. Search the App Store or Google Play with words like PDF or Scan. Some of these are Adobe Scan, Apple Notes, CamScanner, iPhone Notes, GeniusScan, and many others. Try a few. Some printers also are capable of scanning sheets into a PDF file.
- **The First Homework.** Your first assignment helps you to practice this process.
 - Here is a first draft of a homework, Sample-PDF. Rewrite the file in your own handwriting with your name on top.
 - Use your app or scanner to make a single PDF file out of your handwritten work.
 - Name it with your name and assignment name, as in Smith-Jane-Up0.pdf, (for long names the first five letters of each name is enough)
 - Upload it to WebAssign under the PHQ assignment named “Up0”.
 - During an exam you must be able to do this for a 10-page document in less than 10 minutes. So practice several times.
 - Make sure your output looks clean.
 - Always include a Page 0 at the beginning, this is a table of content for your document. It includes a list of problem numbers, in order, and the page on which they appear on your work. For a problem you did not do put NA for its page number.
 - Write your name on each page of your work.
 - Write the software/hardware name used for making the PDF document on Page 0.
 - Avoid the following common issues:
 - file not in PDF form (Word, JPEG, HEIC, Text, PNG, etc. not acceptable for math upload)
 - small or hurried handwriting
 - missing Page 0, missing or duplicate pages
 - missing table of content on Page 0
 - dark pictures
 - shadows
 - weak or fuzzy pictures, blunt pencil
 - rotated pictures
 - trapezoidal pictures
 - out of sequence pages



reverse side visible (on some scanners the light is so strong that it seeps through the page and makes an imprint of the back side of the page. If this happens either use a blank page on back of the homework page, or write only on one side of page)

- Troubleshooting “Upload mechanism does not show”

This is usually due to your computer settings. Try the following and test again after each attempt:

Update all of your browsers; try all.


Do a hard reset on browsers “CTRL SHIFT R” or “CMD SHIFT R”.

Erase cache and cookies for all time.

If nothing worked then: Contact WebAssign Support 1-800-955-8275

To prove that you actually had the PDF file email it in time, however it must be uploaded to count and you need to resolve this issue before exams

- Mathematical Writing Requirements

- Solutions must show all steps similar to what is presented in the lectures or in the text.
- Copying final answers from WebAssign to PDF, instead of showing steps, is not acceptable and may lead to a grade of 0 .
- The practice homework above gives an indication of level of detail and the style that is expected.
- If you want to use a solution method different from the ones used in lectures call me first.



6 Student Profile

Students are required to make a profile and submit it to WebAssign assignment named “Profile”.

- Copy the entire text of this questionnaire (all the text between the lines below),
- Paste it in Word.
- Answer each question as best as you can,
- make a blank line between successive questions,
- Convert your reply to PDF,
- Submit to WebAssign assignment “Profile”,
- Check WebAssign for the submission deadline.

Start of Profile questionnaire

I Identity Information (required)

You are being asked to identify yourself because you are accessing our network and getting credit for the work performed. All of this information is collected during tests. Here you are confirming that information. Incorrect, misleading, incomplete, missing, or late identity information may result in disciplinary action. You may be asked to go through additional identity screenings.

- 1 First name
- 2 Last name
- 3 Lamar University L number
- 4 Lamar email
- 5 Secondary email (optional)
- 6 City, State, Country, Zip code of location of EACH computer you will use for this course. In case you have more than one address send an email and explain.
- 7 Do you plan to travel during this course? In that case update address information by email prior to usage and explain.
- 8 A clear copy of Lamar ID or Driver License. Only show name, picture and logo. All other personal info must be covered.
- 9 Two large clear ID-type pictures (about 6 by 4 inches, or half a page) showing your face from front and side. Do not wear hats or sunglasses or any head covering. Picture should be similar to what you would take for an ID at DMV. A clear non-distorted selfie is fine.

II Education Information

- 10 Declared field of study, (major/minor)



- 11 Details of the last three math classes you have taken (where, when, how well did you do, was it online?)
- 12 Why are you taking this course? Why this section? This section is accelerated, online, WebAssign-based, and asynchronous. These are major challenges in themselves. Explain to me that you understand the requirements and your readiness for it. (On-campus classes are like taking your bike out for a ride. On-line classes are like making reservations for air-hotel-car six months in advance. Different mindset and skill sets are required.)
- 13 This course requires satisfactory completion of Math 2413 through Chapter 5, Integration, and Chapter 7, Applications. Do you have a solid and recent preparation in Calculus I?
- 14 What future math classes do you plan to take? Coming up are: Calculus III, Linear Algebra, Differential Equations, and Statistics. Then there are the optional applied math courses: Numerical Analysis 4315, Partial Differential Equations 4302, and Complex Analysis 4310.

III Exam Window, Hardware Requirements, HonorLock

- 15 Exams usually have a limited window (e.g. 8 am - Noon, 2-4pm). Will you be able to take a test in such a window? If not then you must submit schedule of activities that interfere with the exam schedule. Submit a timely email and upload your schedule to “Documents” on WebAssign.
- 16 Do you have a solid computer, good online connectivity (5+ Mbps upload), a webcam, a microphone, a smart phone, phone holder, charger, long extension cord, WiFi, and an uncluttered, private, quiet, glare-free study area?
(Certain setups may not be compatible with exam requirements, these include use of tablets or phones in place of computers, custom-made computers, hotspots. Students are responsible for their own IT setup and doing a regular system check. The Practice Test will alert you about your system issues.)
- 17 What is your back-up computer system in case your main setup is disabled? Students are responsible for their own backup setup.
- 18 During tests you will be asked to use the webcam and phone to show your ID, your face, your hands, and your worktable to ensure that standards of HonorLock/Ultra-based tests are met. We apologize in advance for the intrusion and the inconvenience, but there is no other way of taking a secure test.
HonorLock/Ultra will record all events. If the proctoring standards are not met student will be subject to disciplinary action. Do you agree with this requirement?
- 19 To recap here are some general policies for this course:
 - * You are signing up for a mountain climbing expedition, and not for an Uber ride.
 - * This is a “No Substitutions” course. Read this file to make sure it is a good match for you before finalizing your courses. Do not “assume” anything that is not explicitly stated.
 - * All assignments are subject to random oral exam audit.
 - * All interactions are gradable events.
 - * The lack of a policy or knowledge of a policy does not constitute privilege.
 - * All claims of exception require verifiable proof uploaded to WebAssign and emailed in a timely manner. Student waves confidentiality for verification.



- * Exams are monitored by HonorLock and Streaming via smartphone and Chat line using Blackboard Ultra.
- * If the monitoring setup is not according to specifications exams will be subject to investigation.
- * Bonus points will be forfeited or negative points may apply for policy violations.
- * Students are responsible for their own IT/email address/WebAssign syntax issues.
- * Misunderstanding the PHQ procedure will result in a grade of 0.
- * No late admissions. No provisions for late comers. No late entry into course.
- * Use of TI84 and similar graphing calculators or websites (other than WebAssign exam page) during exams will nullify the exam and initiate disciplinary action.
- * Computer with mic and webcam, smart phone, PDF generating app or scanner, WebAssign account, and WiFi are required.

In your profile you do need to type the following.

By submitting my Profile I pledge: “I have read and agreed with course policies as detailed on this file. I understand that I should make my best effort to uphold integrity standards of the course. I understand disciplinary actions, ranging from oral exams to a failing grade for the course, are a possibility when the standards are not met.”

IV Personal Information

20 As a part of your profile you may include optional items and information to let me know you, your educational goals, your career goals, responsibilities, current employment, what you expect from this course, and any details that you think might help what we intend to do in the course.

If you have not done well in math classes before, let me know what steps you are taking or willing to take, from the first day, to make sure you succeed this time.

End of Profile Questionnaire



7 Basic IT Troubleshooting

- These are the basic steps, beyond these you must contact customer support for WebAssign/Lamar Blackboard/HonorLock/Internet Service Provider/PC.
- Students are responsible for their own setup and IT issues. Have a backup plan just in case. For example a lab in Lamar. Check hours of availability, mic/webcam, and do a dry run to be sure.
- The 25% Rule: The last 25% of the time window of any assignment is the Red Time Zone. If a student is working on any assignment in the Red Time Zone and gets into any technical issue (PDF, WiFi, HonorLock, WebAssign, Phone, PC, electricity etc.) that cannot be resolved before the deadline the student accepts responsibility. In other words, do not procrastinate and do not wait until the last minute to take the tests or do the homework.
- It is suggested you go through these steps (except for erasing of cache and cookies) periodically and on the days before tests so that you do not start with the frustration of a computer incompatibility on the day of exam.
- General
 - Update operating system and browsers regularly, also update your phone and install Safari
 - Reboot your computer, WiFi, router
 - Erase cache and cookies for all time (Caution, this erases some settings, use only as an item of last resort)
- Student has multiple courses on WebAssign, when s/he attempts to enter in one class s/he ends up in another class
 - Update browsers, try all
 - Do a hard refresh on the browser, “Ctrl Shift R” or “Cmd Shift R”
 - Erase cache and cookies for all time (Caution, this erases some settings, use only as an item of last resort)
- Upload mechanism does not work or does not show on questions on WebAssign (PHQ)
 - Check that each upload file is smaller than 10 Mb. You may upload up to ten files. High resolution pictures set you above the limit (e.g. iPhone 14). Reduce resolution and upload them separately. If uploader complains that your filename has unrecognizable characters recreate the file and try again.
 - Update all browsers
 - Check WebAssign Availability Status
 - Erase cache and cookies for all time
 - Contact WebAssign



- For home WiFi issues
 - Reboot modem and router (disconnect power to both, reconnect after 1 min)
 - Use Ethernet wire direct to modem to improve speed
 - Contact your ISP (in Beaumont the old TWC setup should be converted to new Spectrum with a minimum 200/10Mbps speed, for free)
 - HotSpots might not give satisfactory performance, use a WiFi
- Phone (in case required for streaming during exams),
 - Update and install Safari
 - Must be on charge, on a sufficiently long extension cord
 - Must be on WiFi
 - Release screen lock, rest it on its long side (landscape) at about eye level, to give a full view of your worktable and monitor
 - Practice before test day. Make sure phone is secure!
 - HotSpots might not give satisfactory performance, use a WiFi
- Customer Support
 - WebAssign 1-800-354-9706
 - Blackboard/Ultra/Lamar 409-880-2222
 - ISP (Spectrum is 1-833-267-6094)
 - HonorLock 1-844-243-2500



8 How to take a Test

These instructions are subject to revisions, especially after the first practice test.

It is essential that students read this section carefully and completely before the practice test to become familiar with the mechanics and the environment of tests.

Trying to wing it on the day of exam or skipping the practice tests is not practical and creates a negative mark on the student's record. Try to imagine that two dozen students are taking the test at the same time as you. Each of them imagines to be the only one in the exam room. Many of them raise their hands at the start of the exam with questions as to how we are going to proceed. This can create a hectic environment. So I will have a positive/negative point system to encourage students to come to exam prepared and discourage requests for duplication of the information that is already listed here.

Exams are, for the most part, similar to the homework. You answer questions on WebAssign and show your work in a PDF file. There are some major differences of course. There are security measures to be followed, time is limited and the number of chances is also limited. You need an ID. To enter exams you need a password. The first part of password (like ABCD) is picked when you start HonorLock and the second part (like 1234) is given on Private Chat once your setup is approved. Then you open the WebAssign exam with ABCD1234. By the way, ABCD1234 is just an example, not an actual password.

You may bring your basic non-graphing scientific calculator and handwritten homework paper notebook. Digital archives, as in tablets or iPads, are not allowed on exams, nor are calculators like TI84 etc. If your notes are digital then you need to print them to bring them to exams.

Exams can be started any time in the announced time window. So long as you start any time in the given time window you will have the full exam time. However you are urged to start early as technical issues may arise that could eat into your time.

If announced exam schedule does not work for you then email the scheduling that conflicts with the exam (for example official work or printout of class schedule). Clearly indicate available time, and also upload all supporting documents go to "Document" assignment on WebAssign (near the bottom of list of assignments).

If you are registered with ARC contact me two days before each exam.

Familiarize yourself with the IT Troubleshooting file, and start the exam early to have the time to recover from technical issues.

Please show up on tests with same rules of dress as in a class. (Translation: do not come to test without a shirt!)

There are a number of exam integrity checks; namely Stream, Chat and HonorLock, they all start on Blackboard.

- HonorLock (on computer)/ Gateway Test

HonorLock is a software (Chrome extension) that you need to install on your computer. It will allow us to proctor your tests and quizzes. Your computer needs a webcam, mic, Chrome, WiFi, and 5+Mbps upload speed. You need an ID.



- If you still have the Proctorio extension go to *chrome://extensions/* to remove it. Otherwise HonorLock won't install.
- Install HonorLock, as a Chrome extension.
- On Blackboard you will see an announcement for a “New Test”. Once you follow the link you will see instructions from HonorLock. Follow the instructions.
- Next, there will be a Gateway Test. Once you open it all you see is an alphabetic password (e.g. ABCD). Write it down. You will need it to log into WebAssign exam.
- Do NOT click any submit buttons on Blackboard yet. Just leave it as is, once you are done with the entire test and have submitted your PDF come back to submit this.
- There are separate instructions for the Gateway Test and the WebAssign test.
For example typically Blackboard says you have unlimited attempts and as much as 7 hours to complete! This is for getting ready with ID/calculator/paper/pencil/checking or resetting WiFi/ etc., not for the actual math test. WebAssign test is 60-150 minutes, and you have limited attempts (typically one or two).

- Stream via smart phone/Ultra ⚠

Here you will be streaming your exam environment via Blackboard Collaborate Ultra on your phone. (This is similar to FaceTime.)

- Update phone and install Safari.
- Put phone on WiFi, on a long charging cord.
- Open a browser on your phone. Go to Blackboard then to Collaborate Ultra. You will see a session named “Streaming”. Click on it and join.
- Allow camera access. Turn audio off.
- Put the phone on landscape mode and rest it on its long side. (Phones have two modes: Portrait and Landscape. Find the key that releases the lock for this. It might be called something like Portrait Orientation Lock. Search online to see how to do this for your phone. This is to prevent your image from looking narrow/tilted with dark edges.) ⚠
- Put phone on a secure phone-holder at about eye level near to your side of table. Phone is to be aimed at your worktable.
- Phone is to show both hands at all times, notebook, calculator, keyboard, monitor, as well as an area one foot wide to each side of the monitor and keyboard. Phone is not to be far away and should not show anything else unless instructed by faculty. ⚠
- Practice by filming yourself while seated at your setup.
- Bonus points are forfeited if I have to intervene. Exam might become invalid. ⚠

- Chat on computer/Ultra

We will be using Blackboard Collaborate Ultra on your computer for chat (similar to texting).

- Go to your computer. Open a NEW window. (Right click Chrome, choose “new window”).



- Go to Blackboard, then Collaborate Ultra. Open the session named “Chat Line”.
 - Learn the difference between Private Chat and Public Chat.
 - Read the announcements on Public Chat. Most often you will use Private Chat to contact me.
 - Make the window narrow and place it on a side of your monitor. Do not cover it up with other windows. Check it occasionally for messages.
 - I may communicate with class using Public Chat, or communicate with you using Private Chat.
 - Once your Stream+HonorLock are set come to Private Chat. If I approve of your setup you get a numeric password (e.g. 1234) on your Private Chat. Write this down.
- Entering WebAssign Test
 - Once you log into your WebAssign account use the combo password (alphabetic then numeric, in our example ABCD1234) to log into WebAssign exam.
 - The first problem can be a PHQ question, (e.g. “what is 2-5?”). Answer it asap to indicate you are present.
 - Clicking on the green + sign next to any question gives score information. The number of choices is limited. Choose wisely and carefully. Track your time.
 - Some students keep most questions in open status without submitting any answer. This is a risky strategy as the time could expire without student having submitted answers.
 - When done with the WebAssign questions click the submit button at the bottom of exam.
 - Show your work papers to your computer webcam for 10 seconds each. Hold the paper steady.
 - Let me know on Private Chat that you are done on WebAssign part of exam. Make your PDF (if you need your phone it is OK to stop streaming and to use it for making the PDF file).
 - The PDF upload assignment has the same password as exam.
 - Submit the PDF. You have 10 min for this. Additional time costs 5 points per minute.
 - Go back to Blackboard and submit the Gateway Exam to terminate HonorLock. Also stop Stream and Chat. If you don’t want HonorLock on your computer you can remove it and re-install it for the next exam



9 Exams and Grading

- Approximate time and tentative exam dates :
 - Required Practice Test, 10-26
 - Exam #1, 10-28
 - Exam #2, 11-9
 - Exam #3, 11-21
 - Exam #4, 12-6
 - Exam start time window: 8 am - Noon, 2 pm - 4 pm
- If announced exam schedule does not work for you then contact me. Be prepared to substantiate your request. Email the documentation for events that conflicts with the exam (for example send official work schedule or printout of class schedule). Clearly indicate available time, and also upload all supporting documents go to “Document” assignment on WebAssign (near the bottom of list of assignments).
- Four exams, 12.5% each, total 50%. Homework counts as the remaining 50%.
Bonus points: +5 points per exam, for flawless exam setup, PHQ submission, following class policy.
- Each exam focuses mostly on the homework since the previous exam but knowledge of prior sections is assumed.
- All assignments (homework or exam) are to be handwritten on paper first, converted to PDF, uploaded to WebAssign through a PHQ, in addition to typing answers on WebAssign.
- You may use your paper handwritten homework-lecture notebook during exams. Restrictions apply. No print out of WebAssign pages or texts may be inserted in your notebook. You may hand write table of integration, differentiation, algebra/trig identities in your notebook.
- You may use a basic non-graphing scientific calculator on tests. If in doubt ask me. TI84 and similar graphing calculators are not allowed under any circumstances. During exams visiting any website other than the exam page on WebAssign will be considered an academic integrity violation.
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10 Course Topics

- Chapter 8 Integration Techniques and Improper Integrals
 - 8.2 Integration by Parts
 - 8.3 Trigonometric Integrals
 - (a) Integrals Involving Powers of Sine and Cosine
 - (b) Integrals Involving Powers of Secant and Tangent
 - (c) Integrals Involving Sine-Cosine Products
 - 8.4 Trigonometric Substitution
 - 8.5 Partial Fractions
 - (a) Linear Factors
 - (b) Quadratic Factors
 - 8.6 Numerical Integration
 - (a) The Trapezoidal Rule
 - (b) Simpson's Rule
 - (c) Error Analysis
 - 8.8 Improper Integrals
 - (a) Improper Integrals with Infinite Limits of
 - (b) Improper Integrals with Infinite Discontinuities
- Chapter 9 Infinite Series
 - 9.1 Sequences
 - (a) Limit of a Sequence
 - (b) Pattern Recognition for Sequences
 - (c) Monotonic Sequences and Bounded Sequences
 - 9.2 Series and Convergence
 - (a) Infinite Series
 - (b) Geometric Series
 - (c) n^{th} -Term Test for Divergence
 - 9.3 The Integral Test, p -Series, and Harmonic Series
 - 9.4 Comparisons of Series
 - (a) Direct Comparison Test
 - (b) Limit Comparison Test
 - 9.5 Alternating Series
 - (a) Alternating Series Remainder
 - (b) Absolute and Conditional Convergence
 - (c) Rearrangement of Series



- 9.6 The Ratio and Root Tests
- 9.7 Taylor Polynomials and Approximations
 - (a) Polynomial Approximations of Elementary Functions
 - (b) Taylor and Maclaurin Polynomials
 - (c) Remainder of a Taylor Polynomial
- 9.8 Power Series
 - (a) Radius and Interval of Convergence
 - (b) Endpoint Convergence
 - (c) Differentiation and Integration of Power Series
- 9.9 Representation of Functions by Power Series
 - (a) Geometric Power Series
 - (b) Operations with Power Series
- 9.10 Taylor and Maclaurin Series
 - (a) Taylor Series and Maclaurin Series
 - (b) Binomial Series
 - (c) Deriving Taylor Series from a Basic List
- Chapter 11 Vectors and Geometry of Space
 - 11.1 Vectors in the Plane
 - (a) Component Form of a Vector
 - (b) Vector Operations
 - (c) Standard Unit Vectors
 - 11.2 Space Coordinates and Vectors in Space
 - (a) Coordinates in Space
 - (b) Vectors in Space
 - 11.3 The Dot Product of Two Vectors
 - (a) Angle Between Two Vectors
 - (b) Direction Cosines
 - (c) Projections and Vector Components Work
 - 11.4 The Cross Product of Two Vectors in Space
 - (a) The Cross Product
 - (b) The Triple Scalar Product
 - 11.5 Lines and Planes in Space
 - (a) Sketching Planes in Space
 - (b) Distances Between Points, Planes, and Lines



- 11.6 Surfaces in Space (part of Calculus 3)
 - (a) Cylindrical Surfaces
 - (b) Quadratic Surfaces
 - (c) Surfaces of Revolution
- 11.7 Cylindrical and Spherical Coordinates (part of Calculus 3)
- Chapter 10 (if time permits) Conics, Parametric Equations, Polar Coordinates
 - 10.1 Conics and Calculus
 - (a) Conic Sections
 - (b) Parabolas
 - (c) Ellipses
 - (d) Hyperbolas
 - 10.2 Plane Curves and Parametric Equations
 - (a) Eliminating the Parameter
 - (b) Finding Parametric Equations
 - (c) The Tautochrone and Brachistochrone Problems
 - 10.3 Parametric Equations and Calculus
 - (a) Slope and Tangent Lines
 - (b) Arc Length
 - (c) Area of a Surface of Revolution
 - 10.4 Polar Coordinates and Polar Graphs
 - (a) Slope and Tangent Lines
 - (b) Special Polar Graphs
 - 10.5 Area and Arc Length in Polar Coordinates
 - (a) Points of Intersection of Polar Graphs
 - (b) Area of a Surface of Revolution
 - 10.6 Polar Equations of Conics and Kepler's Laws

