

## Lecture

Lee Drain Building (LDB) 218

Mon/Wed/Fri

12:30 pm – 1:50 pm

## Final Exam

Lee Drain Building (LDB) 218

Mon, May 7, 1:00 – 3:00 pm

## Instructor

**Sarah Fritsch**

**Office:** LDB 409

**E-mail:** sarah.fritsch@shsu.edu

**Phone:** 936-295-1562

*Preferred method of communication is e-mail. I make my best effort to reply within two business days.*

*When e-mailing please include: your name, course (Math 1420.08), and write professionally.*

## Office Hours

Lee Drain Building (LDB) 409

Monday 2:00 – 3:00 pm

Wednesday 10:00 – 11:00 am

Thursday 1:00 – 2:00 pm

or by appointment

## Textbook

Title: *Calculus, Early Transcendental Functions*

Author: Larson and Edwards

Edition: 6<sup>th</sup> Ed.

ISBN: 9781285774770

# Math 1420.08

## Calculus I Syllabus

This course is designed as an introduction to differential and integral calculus for students majoring in the sciences. This course is a prerequisite for many math and science courses as well as fulfilling the Component II (Mathematics) requirements of the core curriculum for students majoring in the sciences. Most students will take Math 1430 Calculus II or Math/Stat 3379 Statistical Methods in Practice depending on the requirements of their degree plan.

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*MATH 1420. Calculus I. 4 Hours.* Topics include limits and continuity, the derivative, techniques for differentiation of algebraic, logarithmic, exponential and trigonometric functions, applications of the derivative and anti-differentiation, definite integral, Fundamental Theorem of Calculus. Prerequisite: C or better in MATH 1410 or MATH 1314 and MATH 1316 with a grade of C or higher; or high school equivalent.

--SHSU Undergraduate Catalogue 2017 - 2018

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### Q. What topics will I learn about in this class?

A. Students leaving this course should be able to:

- Find limits of functions numerically, graphically, and analytically.
- Use the definition of derivative to find the derivatives of algebraic, logarithmic, exponential, and trigonometric functions.
- Use basic differentiation rules, the product rule, the quotient rule, the chain rule, and implicit differentiation to take derivatives.
- Use the first and second derivative test to analyze the behavior of graphs.
- Solve a variety of application problems, including but not limited to related rates and optimization, using differentiation.
- Compute indefinite and definite integrals of algebraic, logarithmic, exponential, and trigonometric functions using basic antiderivatives and integration by substitution.
- Use Riemann Sums and definite integration to solve problems related to finding the area under the curve.
- Apply the Squeeze Theorem, the Intermediate Value Theorem, Rolle's Theorem, the Mean Value Theorem, and the Fundamental Theorem of Calculus.

### Q. What can I do to go from being a good math student to a great math student?

A. Two words. Office hours. The expectation in this course is that all students come into office hours regularly. If you can't come into office hours other ideas are to utilize the Math Center, ALOT online tutoring, and study groups.

## Course Webpage

Can be found by logging onto your Blackboard account via [www.shsu.edu](http://www.shsu.edu)

- Homework Assignments & Due Dates
- Test & Quiz Dates
- Individualized Gradebook
- Lecture Handouts

## How to Study Math

- Look over what we have covered and divide the content into individual topics.
- Look at problems in each topic and determine how you can determine that a problem falls within a given topic.
- Determine the process for solving a particular type of problem.
- Spend time learning to accurately implement each process. Determine what different things can come up while implementing the process and learn how to deal with them.

Most students just study the last of these four things. When students just study the last thing they often become frustrated when taking tests because they have spent so much time working so hard only to not know when to do what on the test.

## Tests & Quizzes

### Q. What types of assessments will I complete this semester?

A. At the end of each unit you will take a test in class, and at the semester you will have a cumulative final exam. In the middle of each unit, you will take an in-class quiz. This quiz is designed to give you feedback about how well prepared you are for the unit test.

### Q. How can I know when the assessments are and what they will cover?

A. I will post the date for each assessment on the course Webpage on Blackboard as soon as I can confidently know when we will have the test or quiz. The sections that will be covered on each quiz or test will also be posted on Blackboard.

### Q. What do I do if I still have questions about how to work a problem after I get my quiz or test back?

A. After quizzes and tests, completely worked keys will be posted on Blackboard. Typically, looking over the key answers whatever questions students have. If you still have questions after looking over the key, please stop by my office hours to discuss any questions you have.

### Q. Can I use a calculator on tests and quizzes?

A. Generally no. While tests may contain some arithmetic, the computations required are carefully crafted so that they should be easily workable mentally or by hand.

### Q. Why are we not allowed to use a calculator on tests and quizzes?

A. While it is important for students to be able to use a calculator, it is also important that you genuinely learn to do mathematics without relying on calculator tricks. Also, studies show that arithmetic fluency is needed to be able to gain algebraic fluency. One key to being able to polish your algebraic skills is to strengthen your number sense again after what may have been years of slow atrophy.

### Q. Can I leave to use the restroom, etc. during a test?

A. Once you have started a test or quiz, you cannot leave the room until you have permanently turned in the test or quiz.

### Q. Does everyone take the final exam?

A. Yes.

### Q. Will there be a study guide for the final exam?

A. The quiz and test keys posted on Blackboard are your study guide for the final exam.

## How to Format Work

- All work must be completed on a separate piece of notebook paper.
- Put your name and course (1420.08) at the top of the page
- Start each section at the top of a new page.
- Title the first page of each section with the section number or title.
- Complete the problems in order. If you need to skip a problem, leave space and come back and work it in the space you left.
- Highlight each problem number and each final result.
- Work each problem beneath the problem before it.
- Work each problem vertically. Each step should be beneath the previous step.
- If you are working with functions or equations, line up the equal signs.
- If you are working with an expression, start each line with an equal sign.

Remember this is **not** your scratch work. This is **a professional product**. You, as the author, are not the person that you should have in mind. You should not think, "What do I need to write down to get to the answer?" The reader, your instructor, is the person that you should keep in mind. You should ask yourself, "What should I write down to demonstrate that I can accurately and thoroughly understand and can implement the procedures and principles that I have been learning?"

## Daily Assignments

### Q. What types of daily assignments will I complete this semester?

A. All students are expected to be actively involved during the lecture. We will periodically take breaks in the lecture where you will practice the skills we are learning. My goal as an instructor is to give you as a student as many opportunities as possible to internalize the material covered before you leave the room and begin to forget what we have discussed. Sometimes these problems may be picked up and graded.

You will also have homework to be completed outside of class. These assignments are selected to help you build on the skills that you started to develop in class and prepare you to be able to work independently on mathematics problems.

### Q. How do I find out what the homework is and when it is due?

A. Some homework assignments will come from our textbook. Other homework assignments will come from worksheets. The pages and problem numbers from the book and copies of the worksheets are posted on Blackboard.

Once I know for sure when we will cover material in class, I will add a due date for the assignment on Blackboard.

### Q. How will we turn in homework?

A. Homework will be due approximately weekly. You will need to write our name on your homework, staple together all of the homework that is due on that date in one packet, and put it in the homework stack in the front of the room.

### Q. Do you accept late homework?

A. Each student will be allowed one (1) homework extension during the semester. This means that they may turn in the packet of homework at the next class period.

### Q. What do I do if I have completed the homework but am not able to attend class the day it is due?

A. You can take pictures of each page of your homework and e-mail the photos to me (sarah.fritsch@shsu.edu). This will let me know that you completed the homework on time. Then turn in the original copy of the homework my office (LDB 409) or in class when you return to facilitate grading. This same policy applies if you miss class for an athletics event or other university approved reason.

## Lectures

### Q. What is expected from me during lectures?

A. You are expected to be actively engaged in taking notes, completing practice problems, and working with your peers as directed by the

## University Policies

For complete policies see  
<http://www.shsu.edu/syllabus/>

### Academic Dishonesty

It is considered cheating on a quiz or test to use an unauthorized calculator or other electronic device, to have access to said device, to use a device that is not cleared, or to share any device between students.

### Student Absences on Religious Holy Days

### Students with Disabilities

I cannot provide you any accommodations until I receive paperwork from the Office of Services for Students with Disabilities. They are located in the Lee Drain Annex (936-294-3512, [disability@shsu.edu](mailto:disability@shsu.edu))

### Visitors in the Classroom

If you need to bring your children to class because their school has a holiday when we are in session, please speak with me.

### Use of Telephones and Text Messagers

Policy can be found at:  
<http://www.shsu.edu/dotAsset/6d35c9c9-e3e9-4695-a1a1-11951b88bc63.pdf>

instructor. You should not be engaged in non-course-related activities such as sleeping or reading newspapers. You are expected to refrain from distracting or disruptive behavior.

#### Q. Can I use electronics during lectures?

A. No. Students should turn their phones off and put them away during the lecture. Students are expected to take notes on paper by hand during the lecture as well. I should not see any phones, tablets, computers, or wires during class.

#### Q. Can I take notes by taking photos?

A. No.

#### Q. What if I need more time to write something down?

A. If you need more time to write something down, raise your hand and let me know that you need more time. Occasionally, I may ask you to stay after class and write down what you missed then.

#### Q. What will happen if I don't conduct myself professionally during lectures?

A. If you are on your phone, otherwise not engaged in course work, or distracting your classmates, then you will be verbally corrected. If you do not correct your behavior, you may be asked to leave class for that day. Consistent disruptions may lead to a student being referred to university administration and being asked to not attend class for the remainder of the semester.

#### Q. What do I do if I need to use the restroom or get a drink of water, but class is not close to finished?

A. Leaving the room to use the restroom, get a drink of water, or engage in any other activities is something that should be reserved for emergencies only. While you should take care of personal activities before or after class, I do understand that true emergencies do exist. Still, they should be the exception rather than the rule. I am only asking you to uphold the same standard that I hold myself to, and I feel like this is very reasonable.

#### Q. What will happen if I miss class on a lecture day?

A. You will be marked absent. If any problems were worked and graded, you will not receive credit for them regardless of whether you missed class for a reason that is typically considered to be an excused absence or not.

#### Q. What should I do if I miss class on a lecture day?

A. Check with a peer to confirm which sections we got through that day. Get notes from a peer and make sure that you review the notes carefully. Come to office hours if you have any additional information. I would recommend that you plan ahead and get the contact information of a few classmates for this purpose.

## Grades

### Daily Average:

- This average includes homework, quizzes, and in-class assignments
- Each assignment is out of a determined number of points
- Add up the number of points earned and divide by the number of points possible
- 25% of semester score

### Test Average:

- Your lowest test is replaced by your final exam score
- 50% of semester score

### Final Exam:

- 25% of semester score
- Also, Replaces a low test grade

## Semester Score

Semester letter grades are assigned as described below:

- A is 90% - 100%
- B is 80% - 89.9%
- C is 70% - 79.9%
- D is 65% - 69.9%
- F is 0% - 64.9%

## Grading

### Q. How will my quiz grades affect my average?

A. You will take approximately five quizzes this semester. These quizzes will be part of your daily score. Each quiz will be weighted to be equal to about as much as a week's worth of homework.

### Q. How will my test grades affect my average?

A. You will take four tests which are weighted equally and together are worth 50% of your semester grade. Your lowest test is dropped and replaced with your score on the final exam if your final exam score is higher than your lowest test grade.

### Q. How will my final exam affect my average?

A. Your final exam is worth 25% of your course average. In addition to this it can replace a low test grade if the score on the final is higher than your lowest test grade.

### Q. What do I need to do if I miss a test or quiz?

A. If you miss a test or quiz and think that you may qualify to make it up, you must e-mail me within 24 hours. At my discretion, a student can make up one test or quiz missed for a documented and university-approved reason. I may ask you for alternate documentation, original copies of documentation, or to have a copy of the documentation to keep on file. I reserve the right to classify a situation as not an appropriate excuse, or to refuse to let you make up the test or quiz for any reason that would preclude a student from making up a test or quiz based on my professional judgment.

If are asking to be allowed to make-up a second test or quiz or have frequently missed class or other assignments, there is a good chance that you will not be allowed to make up the assessment.

If you are not able to come in to my office to take a make-up a quiz or test at a time when I am available within one week, then you forfeit the ability to make up that quiz or test.

### Q. Can I make up missed in-class daily assignments?

A. No. Any in-class assignments are by nature part of the learning process. If you miss the learning process because you missed class, regardless of the reason you missed class, there is no way to recreate the event that you missed. While I do not take off extra points when students miss class, they will not receive credit for and cannot make up any missed daily work.

### Q. When do I need to bring absence related documentation?

A. The only time that I need, or want, any sort of documentation is when you are hoping to make up a missed quiz or test.

## Office Hour Tips:

- Read over your notes after class, before working on homework, and as you study for the test. Write down questions in the margins.
- Work through as much of the homework as you can. Write down questions that you have in the margins.
- Come into office hours or the Math Center and use these questions as your guide for tutorials.

You will get more out of getting help if you come in having already done as much of the work as you can.

## Math Center

### Hours in Farrington 104:

- Mon – Thurs 8 am – 7 pm
- Fri 8 am – 3 pm
- Sat Closed
- Sun 2 pm – 7 pm

### Hours in the Library:

- TBA

## Ada Lovelace Online Tutoring (ALOT):

For more information e-mail [mathcenter@shsu.edu](mailto:mathcenter@shsu.edu) with MathCenter/ALOT in the subject line. You may need to e-mail them from your SAM Mail account.

### Q. How will leaving class early affect my grade?

A. If a student leaves class before it is dismissed, for any reason, any in-class daily work or quizzes will not be accepted or scored. Note: this is different than stepping into the hallway to use the restroom. I'm talking about someone up and leaving class.

### Q. Are any quiz grades dropped?

A. No, but your quiz grades are averaged with a large number of other types of assignments. This should make it so that one low quiz grade alone will not, by the end of the semester, have a huge negative impact on your daily average. If your daily average is low, that means that you have been earning low scores on many, many assignments of various types.

### Q. Are any test grades dropped?

A. Yes. One low test grade can be dropped and replaced by your score on the final exam.

### Q. Can I have my final exam score dropped?

A. No.

### Q. Is there any extra credit?

A. Each test will include a bonus. Beyond that there is no extra credit in the course.

If a student has not earned a particular score after replacing a test grade is replaced by the score from the final, then the student hasn't earned that grade. Grades are intended to, and will, reflect a student's demonstrated level of mastery of the course material. If you have not mastered the material, then you need to retake the class.

### Q. How can I get a grade check form filled out?

A. Please bring any grade check forms by office hours. Occasionally, I may have time after class to fill out grade check forms them.

### Q. Are there any options other than coming in for office hours?

A. Another good option is to use the Math Center. The Math Center has much broader availability than I can possibly have between classes. You can find the Math Center in the Farrington Building Room 104. They also have some hours in the Newton Gresham Library. You do not need an appointment but will need to bring your SAM ID to sign in. Bring your homework problems, textbook, and course notes as these will help the tutors help you.

Finally, the Math Center also provides Ada Lovelace Online Tutoring (ALOT) designed specifically for students who are unable to physically come into the Math Center. An appointment is required.