

Math 4366.01 (CRN 21350)
Elementary Analysis
Spring 2018
3 undergraduate credits

- **Class meeting information:** 205 LDB from 11:00 - 12:20 MW

- **Professor:** Dr. Brian Loft

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All course materials will be available via **Slack**:

<https://join.slack.com/t/math4366shsu/signup>

To create an account on **Slack**, you must use your ...@shsu.edu email address.

Ask to join “math4366shsu”

- **Office Hours:** Monday & Wednesday 9:30 - 10:30; Tuesday 11:00 - 12:00; and by appointment.

- **Course Description:**

Topics include limits, continuity, differentiation, Riemann integration, infinite series and sequences and series of functions. Normally offered in the Spring. Credit 3. Prerequisite: MATH 4361 with a grade of C or better. Normally offered in the Spring.

- **Course Objectives:**

This course is a continuation of MATH 4361 offered in Fall 2017. Students completing this course should have mastery of the following major concepts. Other techniques and ideas will also be covered.

- a rigorous development of the derivative
- a rigorous development of the integral
- series of real numbers and their convergence
- series of real-valued functions and their convergence

- **Structure of course:**

There is no textbook and there will be very few lectures. Course notes will be distributed at the beginning of the semester via **Slack**. These notes will include definitions, remarks, examples, problems, questions, and theorems.

Each student should read and understand all of the definitions, remarks and examples followed by an *attempt* to answer **all** of the questions, solve **all** of the problems, and prove **all** of the theorems.

Each attempted answer, solution, or proof should be written up neatly, completely and concisely. It may be useful to have each on its own sheet (or sheets) of paper. **All submitted work must be legible and consist of complete sentences.** (Note: an equation is considered a complete sentence.)

- **Components:** There are four integrated components within this course. A description of each and its weight is below.

1. **Class presentations – 20 points** – Each day I will call on several students (or ask for volunteers) to present their work on the board. Student progress will be determined by two factors: (1) performance at the board presenting complete, correct work and answering questions from the class pertaining to this presentation and (2) performance when others are at the board, i.e. paying close attention to their presentation and, if necessary, politely questioning their work.
2. **Written work – 30 points** – Each day written work will be collected. Every time a student goes to the front of the room to present her work on a particular problem, written solutions to that problem will be collected from the rest of the class. I will read these and return them the next day, marked either as “correct” or “rework.” You are permitted to rework any solutions until they are deemed correct. Your written work grade will be determined by the number of points earned on “correct” solutions.

If a correct solution is turned in *before* that problem is presented, **6 points** will be earned. If turned in after the presentation, **2 points** will be earned.
3. **Class participation – 10 points** – Each student will be expected to attend each class and participate in a professional manner. Polite questions and comments are expected on a regular basis.
4. **Exams – 20 pts each** – One midterm and a final exam on Wednesday, May 9, 12:00 - 2:00.

- **Important Rules:**

1. **Academic Integrity:** I assume that all work handed in to me or presented in class by you is **entirely** your own work. ***You must hand in your own original work.*** There are **no** accepted references for this class. You **may not** consult other people who are not in this class for help. You **may not** consult any textbooks for help. Doing so will be considered the worst possible form of plagiarism.
2. **Attendance:** Since a significant part of your grade is class participation, and since you cannot participate if you are not present, it will be impossible to succeed (*i.e.* not fail the course) if class is missed.
3. **Focus:** Since this class is almost entirely driven by the students, it is vitally important that during class time we stay focused on the presentations at the board. If you need to check Instagram, read notes from other classes, send a text message, or have a conversation on your phone or with a classmate do so outside of this class.
4. **Etiquette:** We will spend a large portion of time during the semester with another student (or you) at the board in front of the class. When a student is presenting a proof that observers politely question, it is important that each member of the class *ask a question* about the proof, rather than offer a correction. And remember the most important rule: **Be Polite.**

- **Academic Dishonesty:** All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see the Dean of Student's Office.
- **Classroom Rules of Conduct:** Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students are to treat faculty and students with respect. Students are to turn off all cell phones while in the classroom. Under no circumstances are cell phones or any electronic devices to be used or seen during times of examination. Students may tape record lectures provided they do not disturb other students in the process.
- **Visitors in the Classroom:** Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.
- **Student Absences on Religious Holy Days Policy:** Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Section 51.911 (a) (2) defines a religious holy day as: "a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20..." A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed..

- **Disabled Student Policy:** It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities.

For more information on these policies, please visit the site

<http://www.shsu.edu/syllabus/>