

Brazosport College

COURSE SYLLABUS

Math 2413
Calculus I

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COURSE SYLLABUS

MATH 2413 – *Calculus I*

Course Description/Overview:

In this course the students will learn three major concepts: limits, derivatives and antiderivatives (integrals) and their applications. The limits and derivatives are point related concepts applied at functions antiderivatives are related with area problems applied at one function or more functions in the same time. This course is the first from a series of three Calculus classes offered at Brazosport College.

Textbook:

Thomas' Calculus 13th edition written by George Thomas and reviewed by M Weir and J Hass, ISBN:9780321878960.

Required course materials are available at the Brazosport College bookstore, on campus or online at <http://www.brazosport.edu/bookstore>. A student of this institution is not under any obligation to purchase a textbook from the college bookstore. The same textbook is/may also be available from an independent retailer, including an online retailer.

Required Material:

Graphing Calculator TI-83 or better is required. It is the student's responsibility to have basic knowledge about using his/her own calculator. Also some tutorials can be finding on the instructor webpage.

Course Outcomes:

Upon completion of the course, the student will be able to:

1. Find the limit of a function using limit theorems.
2. Compute left and right hand limits.
3. Calculate limits involving infinity.
4. Find intervals upon which a function is continuous.
5. Compute limits involving trigonometric functions.
6. Find the slope of a tangent line using the limit definition of the derivative.
7. Determine where a given function is not continuous, not differentiable, or both.
8. Use the product and quotient rules to find a derivative.
9. Apply the chain rule to find a derivative.
10. Find the derivative of a function implicitly.
11. Use implicit differentiation to solve related rates problems.
12. Use the derivative to locate and classify local extrema.
13. Use the second derivative to determine concavity.
14. Find the antiderivative of a function.
15. Use the Fundamental Theorem of Calculus to compute a definite integral.
16. Use the substitution method of compute a definite integral.
17. Compute the area between two curves

Assessments:

During the semester there will be Three (3) Tests and one Final Exam.

Any written open-answer assessment must contain all the steps performed in order to get the solution, and must be presented in a mathematical methodical manner. It is the student responsibility to turn in the assessment. If a student **fails to turn in the assessment** on time he/she will get a grade of zero for it.

Grading Policy/Evaluation:

The grades will be counted in the following way:

Test 1	25%
Test 2	25%
Test 3	25%
Final Exam:	25%

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Final Exam:

The Final Exam will contain open answer questions and/or multiple-choices exercises questions at instructor discretion. *The student must show all the work in appropriate manner, using mathematical symbol, in order to get full credits.* **The student cannot leave the classroom during the final exam unless he/she finish it.** No makeup is allowed!

Homework:

There will be homework assigned every meeting. The homework will **not** be collected and graded, regularly. It is the instructor discretion if will ask for a certain homework to be turned in. Quizzes from homework or similar exercises will be assigned frequently.

As part of the homework the students must read the lesson before coming to class.

Tests:

Three (3) Tests will be administrated in the regular class. They will be open-answer questions where the students are required to show all the work performed on the tests' paper in a methodical and mathematical manner. Some tests may have multiple-choice questions at instructor discretion. *The student must show all the work in appropriate manner, using mathematical symbol in order to get full credits.* **No makeup work is allowed unless extraordinary circumstances by providing official documents! The reason of missing a test day should be strong (very strong) in order to consider the official documents. Any make up must be complete in 3 working days from the initial test day.**

Grading Scale:

Unless an announced in changes is made, the following scale will be applied for this course:

- A: 90-100;
- B: 80-89;
- C: 70-79.
- D: 60-69
- F: < 60.

Attendance:

The students are strongly encouraged to attend every lecture class. Each class meeting is considering as an entity. **After 3 excused and unexcused absences the instructor will consider "excessive absences" and may fail or drop the student.** It is the instructor discretion what pathway will be chooses. Also, it is the student responsibility to drop from the course if he/she considered necessarily before or on the last day of withdrawing.

To avoid unnecessary class disruptions, the students are should arrive on time and remain seated until the class is dismissed. If a student is coming late in class or lives the class early without a prior notice and extraordinary circumstances, the instructor will consider the student absent for that meeting.

The time spent in the class, the student will follow the instructor's directives and will respect the School's student conduct (including academic honesty). The instructor may initialize attendance rules during the semester.

Dropping policy:

From Brazosport College Calendar you can find the last day when you can get a W for this course. After this date **no late withdraws form will be signed**, unless extraordinary circumstances official documented.

To be eligible for a reinstatement, the student must bring official documents and have an average of at least 70% in his/her class participation.

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Academic Honesty:

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately. Please refer to the Brazosport College Student Guide for more information. This is available online at <http://www.brazosport.edu>.

Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and may, at a minimum, result in getting a zero for the assessment if it is the first time, followed by failing grade in this course, if it is the second time. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.

Time requirement:

Taking into account the volume of the information and the homework assigned, a minimum of 8 hours a week outside of class is required for course preparation including: reading the lessons from the textbook, reviewing the class notes and complete the homework. A team of Tutors is available for you and you can contact them at **230-3527**.

Students with disabilities:

Brazosport College is committed to providing equal education opportunities to every student. Brazosport College offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. **Please contact Phil Robertson, Special Populations Counselor, 979-230-3236 for further information.**

Miscellaneous:

No **electronic recording device can be used in class**, unless Mr. Phil Robertson announces me prior. The students may only take written notes from the class.

No **cell phones are allowed to be used during the class, quizzes, tests or exam.** Please turn off any electronic device, which may disturb the class activity. During the lecture the cell phones must be turned off or silenced.

No **food / snack can be brought into the class and be consumed, at any time.** You may have a bottle of water.

No **other electronic devices, including laptop, palm, iPod, iPad, tablets, are allowed to be brought and used** in class, at any time unless a prior instructor notice and approval.

Important:

1. **NO CLASS will be hold during the Final Exam Week.**
2. There will be **NO OFFICE HOURS during the Final Exam Week.**
3. There will be **NO ASSESSMENTS** at the end of the semester to increase the grades. The students must perform the work during the all 15 weeks class period plus final exam week.
4. Extra copy of the syllabus, tentative schedule and announcements can be found at the web address: <http://www.brazosport.edu/sites/CurrentStudents/Faculty/JoanaAgut/Pages/default.aspx>
5. **Lecture notes may be available for students on the instructor webpage.**
6. **Any misbehavior leads to a withdraw form initiate by the instructor. Sleeping, talking, texting, and eating in class is considered misbehavior. Working to another assessment for another instructor is considered misbehavior too.**
7. **NO GRADE** will be provided over the e-mail or phone, family members or friends. You can find your class grade in person.

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Other Information:

Students Success Center: 979-230-3184: <http://www.brazosport.edu/StudentSuccessCenter/Pages/Welcom.aspx>

Learning Services: 979-230-3253: <http://www.brazosport.edu/learningservices/Pages/default.aspx>

Counseling and Advising: 979-230-3040: <http://www.brazosport.edu/counseling-testing/Pages/default.aspx>

Financial Aid: 979-230-3294

Student Activities: 979-230-3355

For any technical problems please contact:

Help Desk at 979-230-3266. <http://www.brazosport.edu/IT/Pages/default.aspx>