

Calculus I
AMAT 112

Full Year
Room 248 daily

Mrs. Anita Wheeler awheeler@unatego.stier.org 607-988-5098

Office Hours: 7:30-8:00am OR 3:00-3:30pm

Course Description: This class will introduce you to the three basic concepts in Calculus of One Variable (limits, derivatives, and integrals). You will have the opportunity to learn where they came from, how to calculate them, and some of their applications. To facilitate your learning, there will be work days included in our schedule so you may work together to help each other be successful.

<u>Unit</u>	<u>Approximate Number of Days</u>
1. Background Basics	8
2. Limits	14
3. Derivatives	20
4. Applications of Derivatives	42
5. Integrals	23
6. Applications of Integrals	23
*** Final Exam***	14
7. Sequences and Series	17

Each unit will have a quiz and a test. Unit 7 will carry us through the end of the year. There will be no time off in June. All evaluations will be announced in advance. The day-count above will give you a rough idea of timing for the year.

Objective: Your goal is to maintain a 70% in this class to receive a minimum letter grade of C- on your college transcript for this class. There is no pass/fail option, only letter grades A - E.

<u>Grade Scale:</u> 95-100 = A	90-94 = A-	87-89 = B+
84-86 = B	80-83 = B-	77-79 = C+
74-76 = C	70-73 = C-	65-69 = D
<65 = E		

Prerequisites: Successful completion of Pre-Calculus **or** Senior status plus recommendation by Mr. Hamilton, and my approval.

Grading: 20% Final Exam, 44% Tests, 32% Quizzes, 4% Homework

Materials: You will be provided a copy of Calculus: Single Variable by Hughes-Hallett. If the book is not returned at the

end of the year, or if it is ruined, you will be charged \$100 for its replacement. You will need a scientific calculator. A graphing calculator is optional, for we have a classroom set that we will be using.

Attendance: A maximum of 20 absences will be allowed for a full year course. 2 points will be deducted from your final grade for every absence above 20.

Standards of Academic Integrity: The University at Albany expects all members of its community to conduct themselves in a manner befitting its tradition of honor and integrity. Members are expected to assist the University by reporting suspected violations of academic integrity to appropriate faculty and/or administrative offices. Behavior that is detrimental to the University's role as an educational institution is unacceptable. Claims of ignorance, of unintentional error, or of academic or personal pressures are not sufficient reasons for violations of academic integrity.

The following are examples of the types of behaviors that are defined as academic dishonesty and are therefore unacceptable:

Plagiarism: Presenting as one's own work the work of another person. Plagiarism includes paraphrasing or summarizing without acknowledgment, submission of another student's work as one's own, the purchase of prepared research or completed papers or projects, and the unacknowledged use of research sources gathered by someone else;

Cheating on Examinations: Giving or receiving unauthorized help before, during, or after an examination;

Multiple Submission: Submitting substantial portions of the same work for credit more than once;

Sabotage: Destroying, damaging, or stealing of another's work or working materials;

Unauthorized Collaboration: Collaborating on projects, papers, or other academic exercises that is regarded as inappropriate by the instructor(s);

Falsification: Misrepresenting material or fabricating information in an academic exercise or assignment; and

Bribery: Offering or giving any article of value or service to an instructor in an attempt to receive a grade or other benefits not legitimately earned or not available to other students in the class.

Circumventing Security: Users are prohibited from attempting to circumvent or subvert any system's security measures. Users are prohibited from using any computer program or device to intercept or decode passwords or similar access control information..

The violations listed above should be reported to the UHS Program Office immediately. All parties involved will be directed accordingly.

Calculus I is a General Education course in the category of *Mathematics and Statistics* at the University at Albany. The following information is taken from their web site to let you know just what that means.

Rationale

The General Education Program at the University at Albany proposes a set of knowledge areas, perspectives, and competencies considered by the University to be central to the intellectual development of every undergraduate. Taken together, the coursework is intended to provide students with a foundation that both prepares them for continued work within their chosen major and minor fields and gives them the intellectual habits that will enable them to become lifelong learners. Courses within the program are designed not only to enhance students' knowledge, but to provide them as well with new ways of thinking and with the ability to engage in critical analysis and creative activity.

Courses in the area of *Disciplinary Perspectives* emphasize multiple perspectives, enabling students to understand that subjects may be approached in a variety of ways and that different disciplines approach subjects in different ways. Courses in the area of *Cultural and Historical Perspectives* are designed to help students develop an understanding of their own identity and of their relation to various communities, and to increase their ability to interact effectively with persons from different cultural and regional backgrounds. The *Foreign Language* requirement is also designed to enhance students' global awareness and to expand their knowledge of different cultures. Finally, courses in the area of *Communication and Reasoning Competencies* are designed to provide students with an enhanced ability to communicate with others, both through the written and spoken word, to enable them to take advantage of computing technology as a medium of communication. Courses in this area are also designed to develop students' ability to reason in a variety of symbolic systems and contexts included in the *Mathematics and Statistics* requirement.

Learning Objectives for Mathematics and Statistics

Courses in Mathematics and Statistics enable students to demonstrate:

1. knowledge of concepts, terms, and symbols used to analyze data
2. an ability to formulate problems in abstract form amenable to mathematical, statistical, or logical analysis
3. an ability to perform appropriate operations to draw conclusions from data
4. an ability to interpret and communicate quantitative information