

CLARENDON COLLEGE
CLARENDON CAMPUS
FALL 2011//SRING 2012

Mary Margaret Nava, Instructor

Pampa High School, Mathematics Department
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Course title: Calculus I

Course number: 2413.835 and 2413L.835

Credits: 4 hours

Textbooks: Pearson/Prentice Hall: Calculus Graphical, Numerical, Algebraic 3rd Edition

OFFICE HOURS

M-F: 9:35 to 10:15 AM

Tutorials: Tuesday, Wednesday, Thursday, 3:45 –4:15

ATTENDANCE

Attendance policies conform to policies in the Pampa High School Student Handbook.

Course description: Limits and continuity of functions, techniques of differentiation, applications of the derivative and antidifferentiation.

Course Purpose: This course partially satisfies the requirements for the Associate degree at Clarendon College and is designed for transfer to a senior college or university.

Course objectives: Upon completion of this course students should be able to: *Work with functions represented in a variety of ways and understand the connections among these representations. *understand the meaning of the derivative and use derivatives to solve a variety of problems. *understand the meaning of the definite integral and be able to use integrals to solve a variety of problems. *understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.

Instructional procedures: The instructor will make use of lecture, computer program assisted visuals, question/answer, and projects to teach the material.

CLASSROOM CONDUCT

Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class, so please show the instructor and fellow classmates courtesy and consideration.

No personal communication devices of any kind are allowed in the classroom unless they are turned off completely. Possession of any such active device may be cause for expulsion from the class.

Cheating will not be tolerated and may be cause for expulsion from the class and/or receiving a grade of "F" for the class. In addition, the student will be reported to the principal of Pampa High School and the Dean of Students, and students who are reported as cheating to the Dean of Students more than once shall be disciplined by the Dean. Cheating violations include but are not limited to (1) obtaining an examination, classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination, classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination, classroom activity, laboratory exercise, or homework assignment; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory exercise; (9) plagiarism. Plagiarism is the using, stating, offering, or reporting as one's own an idea, expression, or production of another person without proper credit.

GRADING PROCEDURES

Quizzes: All quizzes during a 6 weeks period average to one test grade.

Tests: Each test will count equally with the quiz average counting as one test grade.

Final Exam: The final exam will count as $\frac{1}{4}$ of the semester average.

A=90 – 100 D=60 - 69

B=80 – 89 F=below 60

C=70 - 79

TURNING IN ASSIGNMENTS

Late assignments will not be accepted unless they are the result of an excused absence. However, if you are to be gone for a school activity, you should turn your assignments in before the excused absence. If you are ill or have an emergency, try to send the paper to class by someone. If you cannot, see me the **first class period** you are back in class. If circumstances warrant, the paper will be accepted. **It is your responsibility to contact me.**

ADA STATEMENT

Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, notify the Office of Student Services (806-874-3571 or 800-687-9737).

WITHDRAWAL FROM COLLEGE OR FROM CLASS

It is the responsibility of the student to read and understand the policies concerning withdrawal from college or from any individual course(s). Such policies may be found in the College Catalog or by contacting the Office of Student Services (806-874-3571 or 800-687-9737). A student who is enrolled in a developmental course for TSI purposes may not drop his/her only developmental course unless the student completely withdraws from the college. International students and students receiving financial aid or veteran's assistance should see the appropriate college official before dropping or withdrawing from any class. Any student who is considering dropping a course is encouraged to contact his/her teacher prior to initiating a drop or withdrawal.

Tentative Course Outline:

- I. Functions, Graphs, and Limits
 - A. Analysis of graphs.
 - B. Limits of functions (including one-sided limits).
 - C. Asymptotic and unbounded behavior.
 - D. Continuity as a property of functions.
- II. Derivatives
 - A. Concept of the derivative.
 - B. Derivative at a point.
 - C. Derivative as a function
 - D. Second derivatives.
 - E. Applications of derivatives.
 - F. Computation of derivatives.
- III. Integrals
 - A. Interpretations and properties of definite integrals.
 - B. Applications of integrals.

- C. Fundamental Theorem of Calculus.
- D. Techniques of antidifferentiation.
- E. Applications of antidifferentiation.
- F. Numerical approximations to definite integrals.

