SUFFOLK COUNTY COMMUNITY COLLEGE
MICHAEL J. GRANT CAMPUS
FALL 2009
MAT141 COURSE OUTLINE

COURSE:	Calculus with Analytic Geometry I
CRN:	MAT 141 CRN 93673
INSTRUCTOR:	Maria Teresa Alzugaray Rodriguez
PRE-REQUISITE:	C or better in MAT125 or MAT126
OFFICE:	HSEC A106
PHONE NUMBERS:	Office: (631) 851 – 6442 Math Secretary: (631) 851 - 6737
E-MAIL:	alzugam@sunysuffolk.edu
OFFICE HOURS:	Monday 10:00 – 11:15 am Tuesday 8:30 – 9:15 am; 2:00 – 3:15 pm Wednesday 12:30 – 1:30 pm Thursday 8:30 – 9:15 am
Webpage	http://www2.sunysuffolk.edu/alzugam

COLLEGEWIDE COURSE DESCRIPTION

Study of limits, continuity, theory and application of the derivative; related rate problems; maxima and minima; definite and indefinite integrals; and areas under curves.

OBJECTIVES

Upon successful completion of this course, students will be able to:

A. Use the definition of limits to calculate the value of limits; use technology to calculate the value of limits.

B. Apply the relationship between infinite limits and asymptotes to the sketching of graphs of functions; use technology to simulate asymptotic behavior numerically.

C. Apply the concept of continuity to polynomial, rational, composite, trigonometric, exponential, and logarithm functions.

D. Show and apply the relationship among the tangent to a graph of a function, the difference quotient, the two forms of the definition of the derivative, continuity, and differentiability.

E. Compute the derivative of polynomial, rational, trigonometric, exponential, and logarithmic functions. Compute derivatives using the product rule, the quotient rule, and the chain rule.

F. Apply the concept of derivatives to related rates, optimization problems, curve sketching, higher order derivatives, implicit differentiation.

G. Calculate the Taylor polynomial (degree 1,2, & 3) approximation to a function.

H. Use summation formulae to evaluate Riemann sums. Use Riemann sums to approximate the definite integral.

I. Find antiderivatives of polynomial functions and those functions whose derivatives are known.

J. State and apply the results of the Mean Value Theorem, the Fundamental Theorem of the Calculus, and the average value of a function.
K. Use definite integrals to calculate the area between curves.

PROCEDURES FOR ACCOMPLISHING THESE OBJECTIVES
The students are expected to participate in problem solving during classes, do the assigned homework and reading and get help during the instructor's office hours if they need it. There is also free tutoring available at the Center for Academic Excellence Annex in room HSEC A129 (hours are posted on door and at http://department.sunysuffolk.edu/AcademicSkillsCenter_G/index_1763.asp).

TEXTBOOK
Essential Calculus; Early Transcendental Functions, Custom edition, by Larson
ISBN-13: 978-0-547-13455-0, ISBN-10: 0-547-13455-X

GRADING PROCEDURE
There will be three tests (no make-ups) and a cumulative final exam. Test average will represent 70% and the final exam score 30%. Letter grades are assigned according to college guidelines: 90-99.9 "A", 85-89.99 "B+", 80-84.99 "B", 75-79.99 "C+", 70-74.99 "C", 65-69.99 "D+", 60-64.99 "D", below 60 "F". A grade of 'W' will be given only if the student withdraws officially by returning a withdrawal slip with the teacher's signature to the Registrar's Office prior to the college wide deadline.
The approximate timeline for the tests and final exam is the following:

Test # 1	September 29, 2009
Test # 2	October 27, 2009
Test # 3	December 15, 2009
FINAL EXAM	December 17, 2009

ATTENDANCE POLICY
Attendance is mandatory. In accordance with the school policy, all students are expected to attend every session for each course for which they are registered. Students are responsible for all that transpires in class whether or not they are in attendance. The College defines excessive absence or lateness as more than the equivalence of one week of class meetings during the semester. Excessive absence or lateness may lead to failure in a course or removal from the class roster.

IMPORTANT INFORMATION
A student with special needs or disabilities should get in touch with the instructor during the first week of the semester in order for the appropriate accommodations to be arranged. For more information on this matter please contact the Counseling Center at (631) 851-6250.
Any rude or disruptive behavior may be cause for dismissal from a class for one class meeting**.** In those cases where the continued presence of a student poses a substantial threat or would be disruptive to the class, the instructor can request that the Dean of Student Services impose an interim suspension pending a disciplinary hearing. Cell phones and beepers should be turned off at all times during class time.