High School Name

Instructor: Your Name Here Your phone number Your email address

This course is given in cooperation with the Early College Experience Program at the University of Connecticut, <u>ece@uconn.edu</u>, 860-486-1045

Meeting Times:

Current Semester

Office Hours:

MATH 1132Q

Calculus II

Text: Single Variable Calculus: Early Transcendentals, 8th edition, James Stewart, 2016, Cengage **Prerequisite:** A grade of C or better in Math 1131Q

Goals & Expectations: The goal for the semester is to learn, to understand, and to be able to work with the main concepts of Calculus II: applications of integration, techniques of integration, integral approximation, improper integrals, sequences and series (including power series and Taylor series), parametric curves, and polar coordinates. This does not mean that you should only be able to work through similar problems to those in the homework, but that you should have the ability to go beyond and to present your knowledge in a clear and coherent manner as well. You should be able to apply the theory and ideas of the course to general questions and problems.

Homework & Quizzes: Mathematics is best learned through practice, most of which will happen outside of the classroom. Homework will be assigned in class with a due date that will generally be the following class. Quizzes will be given periodically.

Exams: There will be three exams. Exam 1 will cover sections 7.1-7.4 and 7.7-7.8. Exam 2 will cover 6.4, 11.1-11.6. Exam 3 will cover 11.8-11.11, 9.1, 9.3, and 8.1. The final exam will be cumulative, covering all previously mentioned material and sections 10.1-10.4. The date of the final exam has not yet been determined and will be announced when it is known.

Late Work & Makeup Policy: Late work will be accepted at discretion of the instructor and may be accompanied by a penalty on the score. No makeups for quizzes or exams will be given unless there is a verifiable excuse. All issues with final exam rescheduling are handled by the Dean of Students office.

Grading: The final grade will be within one full letter grade of the final exam grade with adjustments made to ensure synchronicity with the UConn-Storrs grading standard. Within this framework, the grade for the course will be based as follows:

Homework (20%) Quizzes (15%) Exams 1, 2, 3 (13% each) Final Exam (26%)

Academic Integrity: A fundamental tenet of all educational institutions is academic honesty; academic work depends upon respect for and acknowledgement of the work and ideas of others. Misrepresenting someone else's work as one's own is a serious offense in any academic setting, and it will not be condoned. Sanctions shall include, but are not limited to, a letter sent to the Office of Community Standards of the University, a grade of 0 on the assignment, quiz, or exam, or a grade of F for the course.

Section	Торіс
7.2	Trigonometric Integrals
7.3	Trigonometric Substitution
7.1	Integration by Parts
7.4	Integration by Partial Fractions
7.7	Approximate Integration
7.8	Improper Integrals
6.4	Work
11.1	Sequences
11.2	Series
11.3	The Integral Test and Estimates of Sums
11.4	The Comparison Tests
11.5	Alternating Series
11.6	Absolute Convergence and the Ratio Test
11.8	Power Series
11.9	Representations of Functions as Power Series
11.10	Taylor and Maclaurin Series
11.11	Applications of Taylor Polynomials
9.1	Modeling with Differential Equations
9.3	Separable Equations
8.1	Arc Length
10.1	Curves Defined by Parametric Equations
10.2	Calculus with Parametric Curves
10.3	Polar Coordinates
10.4	Areas and Lengths in Polar Coordinates

Math 1132Q Outline (updated Fall 2018)