Wallenpaupack Area School District

Wallenpaupack Area High School
Mathematics Department – Honors Level
Course Title: Calculus II
Length of Course: 1 semester

District Policies:

Academic Integrity:
Academic integrity is essential to the success of an educational community. Students are responsible for learning and upholding professional standards of research, writing, assessment, and ethics in their areas of study. Written or other work which students submit must be the product of their own efforts and must be consistent with appropriate standards of professional ethics. Academic dishonesty, which includes cheating, plagiarism, multiple submissions and other forms of dishonest or unethical behavior, is prohibited.

Assessment:
The goal of grading is to report student progress and achievement to the parents to strengthen the home-school connection. The grade should accurately reflect the student's performance in mastering the PA Standards and the WASD curriculum.

Attendance:
Regular school attendance is vitally important to academic success. Not only does attendance reinforce and enrich the learning process; it also establishes patterns and attitudes that will carry forward into adult work habits. Regular, consistent attendance is a prerequisite to successful school life. Children should be absent only in cases of illness or emergency.

Special Education:
Our commitment to each student is to ensure a free appropriate public education which begins with the general education setting, with the use of Supplementary Aids and Services. Inclusive education describes the successful education of all students with the appropriate supports and services to participate in and benefit from the general classroom settings and other educational environments.

Course Description:

1 Credit	Pathway: All Grade: 12	Prerequisites: Passing grade in AP Calculus, Probability and Statistics and Math Dept approval
Description:	Calculus II is offered as a dual enrollment class. It is a rigorous college level course and requires a sound AP Calculus background. The student who enrolls is expected to prepare seriously for an AP Calculus BC exam. The student will be required to take the exam at district expense. The student may register and apply to college with the intent of earning college credit.	

Pennsylvania State Standards: All WAHS courses are aligned to the PA State Standards and Common Core Standards, where applicable.

Major Activities: Homework, Tests and Quizzes

Student Responsibilities:

Attendance expectations: *Students are expected to be in class each day on time with book, notebook and pencil. (Pencil rather than pen is recommended because of ease in making corrections.)*

Homework expectations: *Homework is a very important part of this course. It will be assigned almost every night. Homework must be completed on time with very limited opportunity to make up work depending on special circumstances. Problems not attempted at all or without showing work will not be considered completed. However, problems done incorrectly can and should be corrected by the following class period. Copying homework is cheating and may earn a zero, as does homework not attempted or cheating on a test or quiz. Working together on homework is not cheating.*

Students are expected to keep a notebook containing all notes, worksheets and homework assignments.

Math Lab is available certain periods during the day, one night each week after school and one morning each week before school. Details are announced regularly.

Make-up work: Students have the same number of days as the number of days they were absent to make up missed homework, tests and quizzes. It is the student's responsibility to ask for missed assignments, to submit assignments upon completion, and to schedule make-up test and quizzes.

Late work: See Homework Expectations. Due dates are announced for each course.

Assessment:

Grading components: *Honors Level Quarter Grading - 55% for tests, 25% for quizzes and 20% for homework, class work and participation. Final Grade = 3/7 of Quarter 1 Average, 3/7 of Quarter 2 Average and 1/7 Final Exam Grade.*

Content Pacing Guide:

Topic	Major Assignments	Estimated Time
Derivatives Review Rules Trigonometric Derivatives Inverse Trigonometric Derivatives		3
Hyperbolic Functions Derivatives Inverses	Quiz	3
Anti-derivatives Indefinites Integrals and U-substitution	Quiz	3
Integration Sigma Notation Limits of Finite Sums Riemann Sums & the Definite Integral		4
Fundamental Theorem of Calculus Mean Value Theorem Total Area – Real life examples	Quiz	2
Substitution and Area between curves		2
Logarithm defined as an Integral		1
Integration of Hyperbolic Functions		1
Applications of Integration Volumes by Slicing - Disk, Washer and Shell Methods		4
TEST		1
Lengths of Plane Curves Parametrically		3
Areas of Surface Revolutions	Quiz	3
Integration by Parts		2
Trigonometric Integrals Trig Substitution Products and Powers of cosine and sine Products and Powers of tangent and secant		5
Partial Fraction Integration		2
TEST		1
Integration Tables	Short lesson	
Improper Integrals		5
Sequences		2
Infinite Series	Quiz	2
Integral Test		2
Comparison Test		2

Ratio and Root Test		2
Mixed Review for All Tests	Quiz	3
TEST		1
Alternating Series Absolute and Conditional Convergence		3
Power Series		4
Taylor and Maclaurin Series		4
Binomial Series		2
TEST		1
Polar Coordinates		1
Polar Graphing		1
Area and Length in Polar	Quiz	2
Review for Final		3
FINAL		1