

Honors Calculus Syllabus
2023-24

Instructor: Mrs. Thompson

Room: Price Hall 108 A

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Course Overview: Calculus is the study of change. We will study functions, limits, continuity, differentiation of algebraic and trigonometric functions, applications of the derivative, definite and indefinite integrals with applications. This course is intended to provide a solid foundation for college mathematics courses. It is NOT intended to prepare you for the AP Calculus exam.

Course Expectations: Students are expected to complete all homework problems to the best of their ability. If they need additional support, they can refer to the additional resources listed below.

Students will take quizzes. These quizzes are short and are intended to check for understanding of concepts and skills that were recently taught. Students are required to make all corrections when the quizzes are returned to them.

Technology Requirement: Students should have a TI-84 graphing calculator. There is a classroom set that must remain in the room. Some problems throughout the course will require them to use their graphing calculators.

Additional Resources:

- Students have the option of coming to me for help before school, during lunch or on Wednesday evening after school (4:30 – 5:30 pm).

Course Topics:

- * Prerequisite Topics (Domain, Range, Even, Odd, Trigonometric, Efficient use of the graphing calculator)
- * Limits and Continuity (Algebraically, Numerically, Geometrically, Infinite Limits, Limits at Infinity, Def'n of Continuity, Intermediate Value Theorem)
- * Derivatives (by use of limit notation, L'Hopital's Rule, Algebraically, Numerically, Geometrically, Basic Rules, Products, Quotients, Chain Rule, Logarithmic and Exponential, Inverse Trig, Implicit Differentiation, Mean Value Theorem, Newton's Method, Local Linear Approximation)
- * Applications of the Derivative : (Related Rates, Optimization, Increasing/Decreasing, Concavity, Position, Velocity, Acceleration, Extreme Value Theorem)

Grading Scale:

A 100-90 B 89-80 C 79-70 D 69-60 F 59 and below

Grading Policy:

50% - Major Assessments (Unit tests)
30% - Minor Assessments (Quizzes)
10% - Homework
10% - Classwork

Assignment Policy:

1. Tests will be given at the end of each unit and sometimes halfway through the unit if it is a big unit. When absent on a test day, the test must be made up ASAP.
2. Quizzes may be given once per week. When absent on a quiz day, the quiz must be made up ASAP!
3. Classwork may be assigned daily and must be completed before leaving.

Tutorial Schedule:

*Wednesdays 4:30 – 5:30 pm

*During lunch.

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