

New Paltz Central High School

**New Paltz Central School District 196 Main Street, New Paltz, New York 12561
Tel: 845-256-4000, Fax: 845-256-4009**

Instructor: Joseph M Haas
Phone: (845) 256-4175 ext. 69524

Mathematics Teacher
Email: jhaas@newpaltz.k12.ny.us

Welcome to Introduction to Calculus

In this course, we will begin with precalculus concepts and then move into learning calculus. Where possible, topics in this course are introduced graphically, numerically, analytically, and verbally. The intent is to move students beyond algebraic and symbolic aspects of calculus and give meaning and understanding through applications. Many problems in this course require graphical and numerical work in addition to algebraic manipulation. Written and verbal explanations are an essential part of the course.

Homework is often in the form of a short video lesson posted in Google Classroom. This “flipped classroom” model provides students with more class time for group work and for deeper and more complex problem-solving projects where they have the support of each other and the teacher.

The goal is to build mathematical reasoning, communication skills, conceptual understanding, procedural fluency, and to help us all appreciate and enjoy mathematics. This approach is directly aligned with New York’s Next Generation Learning Standards.

Course Topics:

- Functions and Average Rates of Change
- Linear Functions, Power Functions, Polynomial Functions, Rational Functions
- Conic Sections
- Exponential and Logarithmic Functions
- Trigonometric Functions
- Limits and Their Properties
- The Derivative
- Basic Differentiation Rules and Rates of Change
- Implicit Differentiation
- Applications of Differentiation

Please feel free to come after school (to room 214) or e-mail if you have questions.

Grading

Daily Quiz: 5 points

A short daily quiz will be given at the beginning of each class. The daily quiz will be based on the homework and/or material from the previous class. Each quarter, the lowest 3 daily quiz grades will be dropped. **If you miss a daily quiz you can make it up; however, you must do so before the next class.**

Unit Tests: 20 to 50 points

There are usually 3 or 4 tests per quarter. Each test will cover the material from a particular topic.

Class Work: 5 points

We will frequently work on problems during class time. Full participation in these activities will earn you a 5 out of 5 for the day.

Homework will be in the form of a video or a problem set handout. It will be given daily, and solutions will be posted online.

Your quarter average can be determined at any time by adding up the number of points earned and dividing it by the total number of possible points.

Other Important Information

Calculators:

Please note that students will NOT be using calculators in this course!

Missing Class:

If you miss class, you are expected to look on our Google Classroom (GC) to see the Classwork you missed and what Homework was assigned. You are also encouraged to come find me before the next class, either after school or during the day, to take the daily check you missed and to learn any new material we covered so you're prepared for the next daily quiz. Remember: If you plan to make up a missed daily quiz, you need to make it up before the next class.

After-School Help:

Please come after school anytime if you have questions or need help on anything. You can find me in the math office (room 214A) or in room 214 after school every day.

Cell Phone Policy:

Research clearly shows that cell phones interrupt learning, focus, and our ability to enjoy a learning community. For that reason, please refrain from using your cell phone during class time.

Google Classroom:

I will post all assignments, solutions to homework questions, video lessons, and announce upcoming tests and projects on our Google Classroom page, so check that regularly. In addition, I post test reviews with complete solutions and extra practice problems that can help you at home.