***Website***

*Where you can find unit plans, power points, handouts and answer keys.*

j[mackeymath.weebly.com](http://jmackeymath.weebly.com/%22%20%5Ct%20%22_blank)

***Email address:***

*jmackey@wcpss.net*

*Students are provided an email account on the WCPSS email system. All communication with the teacher is to be done through that email.*

***AP Exam***

*This is an AP course, so all students are encouraged to take the AP Exam in May. The BC exam is comprehensive and includes material from the AB course. There is no need to take the AB exam if you take the BC exam. That one test can earn you credit for both courses.*

***Final Exam***

*The final exam is teacher-made and will count 20% of the final course grade. AP Exam grades are released in July, so do not affect the course grade.*

***Senior Exemption***

*For seniors to be exempt they must have no more than 3 excused absences and an A, no more than 2 absences and a B, or no more than 1 absence and a C for the semester.*

*AP Calculus AB*

 *Fall 2016*

 Course Overview

Prerequisite: Pre-Calculus

Four major themes are developed throughout Calculus: limits, derivatives, indefinite integrals, and definite integrals. Each topic or concept taught is presented numerically, geometrically, symbolically, and verbally. Appropriate mathematical communication is a major goal of the course. Students are expected to explain problems using proper terminology and mathematical notation. The graphing calculator serves as an exploration tool and time saver, not as a substitute for knowledge. At times, calculators will not be allowed on assessments.

Calculus is more than just “getting the answer” and repeating procedures seen in class. Students are expected to demonstrate understanding of underlying principles by applying concepts to unfamiliar situations and problems not seen in class or homework.

Many students who succeeded with ease in prior courses will need to invest more time and effort for success in Calculus.

Quotes from former students

“Always do your homework and ask for help if you don’t understand something.”

 “An emotionally stimulating experience which intellectually challenged me whilst inducing enjoyment during class.”

 “You can’t be lazy” “ The class is a lot of fun” “Challenging but rewarding”

**Evaluation**

Tests/Projects 60%

Quizzes/Labs/Problem Sets 30%

Homework Checks 10%

Grades may be viewed online through PowerSchools.

**Homework Checks**

Homework will be checked randomly for completion.

**Problem Sets**

A Problem Set will be assigned each unit.

The problems are designed as AP Exam practice and will be graded for accuracy.

**Units to be covered**

Pre-calculus review

Limits

Derivatives

More Derivatives

Curve Sketching

Application of Derivatives

Integrals and Area

Integration and Differential Equations

Area and Volume

More Integration Techniques

**Required Materials**

Textbook: “Single Variable Calculus” fifth edition by James Stewart

Notebook – large spiral or 3-ring binder

Graph paper

Colored pencils or highlighter

Graphing Calculator – TI-84 preferred, but any is acceptable

**Supplemental Text**

It is not required, but highly recommended to purchase a supplemental text for extra explanations, practice and review for the AP Exam. Baron’s, Kaplan, Princeton Review and 5 Steps to a 5 are all good.

**Attendance**

You are expected to attend class every day. You have two days for every day absent to turn in missed assignments and make up assessments.

**Extra Help**

Ms. Mackey is available during B-lunch and after school on Wednesday – Friday.