

Mathematics

AP Calculus AB

2 Credits/Mathematics

Indexed

MAT1

Grade: 11, 12 **Laude Point:** 4 **Cost:** Class Fee – None, Exam Fee – See Page 4

Prerequisite: CAPP Pre-Calculus

Course Content: This is a college level course concerned with differentiation and integration of polynomial, trigonometric, exponential and logarithmic functions. This course is recommended for all business, science, mathematics, and engineering candidates.

**Class members may be eligible for college credit by satisfying the requirements of the Advanced Placement Exam.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad) and a 3-ring binder.

AP Calculus BC

1 Credit/Mathematics

Indexed

MAT2

Grade: 11, 12 **Laude Point:** 2 **Cost:** Class Fee – None, Exam Fee – See Page 4

Prerequisite: AP Calculus AB

Course Content: This is a college level course where students continue to work with differentiation and integration of polynomial, trigonometric, exponential, and logarithmic functions. In addition, this course includes parametric, vector and polar functions as well as sequences and series. This course is recommended for all business, science, mathematics, and engineering candidates.

**Class members may be eligible for college credit by satisfying the requirements of the Advanced Placement Exam.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad).

AP Statistics

1 Credit/Mathematics

Indexed

MAT3

Grade: 11, 12 **Laude Point:** 2 **Cost:** Class Fee – None, Exam Fee – See Page 4

Prerequisite: Math 3

Course Content: This is a college level course designed to give students a deeper understanding of the processes and rationale behind the collection and analysis of data. Students will be expected to go beyond calculations to interpret and explain methodology and results. Topics include: collection methods, pictorial and numerical descriptions of data, hypothesis testing, complex probability, and appropriate reporting of results.

**Class members may be eligible for college credit by satisfying the requirements of the Advanced Placement Exam. Students may take Statistics or AP Statistics, not both.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad). A 3-ring binder is recommended.

Mathematics

Consumer Related Math

1 Credit/Mathematics

Finance

MAT5

Grade: 11, 12 **Laude Point:** 0 **Cost:** Class Fee – None

Prerequisite: None

Course Content: Consumer Related Math improves students' financial literacy and financial decision making so they become better consumers. The course explores the terminology, processes, relationships and math skills involved in everyday life. In addition to academic content, students are placed in actual consumer situations (listed below). Topics include: shopping, pay systems, personal accounts, credit, housing, insurance, investments, transportation, probability and statistics, and taxes.

Activities: Visit a grocery store to compare products and prices, research and compare personal accounts, checking management simulation, car purchase process (research vehicles, financing plans, etc.), investment simulation, visit an insurance company (research policy options, factors in premiums, etc.), plan a vacation, complete federal and state income tax forms.

Supplies: A scientific calculator (supplied by the student) is required. A 3- ring binder may be required

Math 1

1 Credit/Mathematics

MAT6

Grade: 9, 10, 11, 12 **Laude Point:** 0 **Cost:** Class Fee – None

Prerequisite: None

Course Content: Math 1 utilizes the Contemporary Mathematics in Context – Course One textbook materials from the Core-Plus mathematics project. This integrated curriculum weaves the traditional topics of algebra and geometry with the expanded topics of statistics and discrete mathematics. All topics are studied in a real-world context, allowing their applications to be readily seen by the students. This course will feature hands-on activities, investigations, small group work, and large class discussions. Students are expected to communicate their thinking and understanding verbally and in writing. Technology is utilized extensively throughout the course. Topics of study include basic statistics, patterns and rules representing relationships, linear relationships, matrix models and operations, transformations, probability, and exponential relationships.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad) and a 3-ring binder.

Math 2

1 Credit/Mathematics

MAT8

Grade: 9, 10, 11, 12 **Laude Point:** 0 **Cost:** Class Fee – None

Prerequisite: Math 1

Course Content: Math 2 utilizes the Contemporary Mathematics in Context - Course Two textbook materials from the Core-Plus mathematics project. This integrated curriculum continues to weave the traditional topics of algebra and geometry with the expanded topics of statistics and discrete mathematics. All topics are studied in a real-world context, allowing applications to be readily seen by students. This course will feature hands-on activities, investigations, small group work, and large class discussions. Students are expected to communicate their thinking and understanding verbally and in writing. Technology is utilized extensively throughout the course. Topics of study include solving basic quadratic equations, coordinate geometry, correlation and variability, powers and related functions, periodic change, logarithms, basic trigonometry, radian measure, probability, simulations, summation notation, and binomial distribution.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad) and a 3-ring binder.

Mathematics

Math 2 ACE

1 Credit/Math

MAT9

Grade: 9, 10, 11, 12 **Laude Point:** 0 **Cost:** None

Prerequisite: Math 1

Course Content:

Math 2 utilizes the Contemporary Mathematics in Context. Course Two textbook materials from the Core-Plus mathematics project. The integrated curriculum continues to weave the traditional topics of algebra and geometry with the expanded topics of statistics and discrete mathematics. All topics are studied in a real-worked context, with emphasis given towards A.C.E. content, allowing applications to be readily seen by students. This course will feature hand on-activities, investigations, small group work, and large class discussions. Students are expected to communicate their thinking and understanding verbally and in writing. Technology is utilized extensively throughout this course. Topics of study include, coordinate geometry, correlation and variability, powers and related functions, periodic change, basic trigonometry, radian measure, probability, simulations, summation notation, and binomial. There are minimal content differences between Math 2, and A.C.E. Math 2, allowing students to follow up with Math 3, thus not restricting a student from academic advancement.

Supplies: Students must a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad) and a 3 ring binder.

Math 3

1 Credit/Mathematics

MAT11

Grade: 9, 10, 11, 12 **Laude Point:** 0 **Cost:** Class Fee – None

Prerequisite: Math 2

Course Content: Math 3 utilizes the Contemporary Mathematics in Context - Course Three textbook materials from the Core-Plus mathematics project. This integrated curriculum continues to weave the traditional topics of algebra and geometry with the expanded topics of statistics and discrete mathematics. All topics are studied in a real-world context, allowing their applications to be readily seen by students. This course will feature hands-on activities, investigations, small group work, and large class discussions. Students are expected to communicate their thinking and understanding verbally and in writing. Technology is utilized extensively throughout the course.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad) and a 3-ring binder.

Math 3 - Extended

2 Total Credits -- 1 Credit/Mathematics, 1 Credit/Elective

MAT12

Grade: 11, 12 **Laude Point:** 0 **Cost:** Class Fee – None

Prerequisite: Math 2

*****This course is 4 quarters long**

Course Content: This course will be taught during four nine-week quarters. The first nine-week quarter is a review of important topics covered in Math 2. Students will earn **one credit in mathematics and one credit as an elective** for successful completion of the course. Math 3 utilizes the Contemporary Mathematics in Context - Course Three textbook materials from the Core-Plus mathematics project. This integrated curriculum continues to weave the traditional topics of algebra and geometry with the expanded topics of statistics and discrete mathematics. All topics are studied in a real-world context, allowing their applications to be readily seen by students. This course will feature hands-on activities, investigations, small group work, and large class discussions. Students are expected to communicate their thinking and understanding verbally and in writing. Technology is utilized extensively throughout the course.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad) and a 3-ring binder.

Mathematics

Statistics

1 Credit/Mathematics

MAT13

Grade: 11, 12 **Laude Point:** 0 **Cost:** Class Fee – None

Prerequisite: Math 2

Course Content: This is an introductory course in the fundamentals and applications of probability, statistics, hypothesis testing, sampling methods, and simple game theory. This is a good course for math, business, and sociology students. Students may take Statistics or AP Statistics, not both.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad).

CAPP Pre-Calculus: Math 108

1 Credit/Mathematics

Indexed, UW-Oshkosh

MAT4

Grade: 11, 12 **Laude Point:** 2 **Cost:** see below

Prerequisite for HS Credit Only: A student has the option of taking this class without CAPP credit and the only prerequisite is Math 3 or Math 3-Extended

Prerequisite for CAPP Credits: You will meet the CAPP eligibility requirements if you are a junior or senior who has completed Math 3 or Math 3-Extended. If you are a freshman or sophomore you will need a teacher recommendation. You must also earn a minimum score on the UW-Oshkosh Math Placement Exam.

Additionally you must also meet at least **one** of the following requirements;

- You are in the upper 25% of your class –OR–
- You have a GPA of 3.25 or above –OR–
- You have a minimum ACT Score of 24 or higher and **one** of the following
 - * class rank in the top 50%
 - * GPA of 2.75 or above

Credits: 1 H.S. Credit/Mathematics

This course is made possible through the University of Wisconsin-Oshkosh CAPP office and is taught by a Kimberly adjunct instructor on the Kimberly High School campus. CAPP Pre-Calculus is worth 5 college credits upon successful completion at the end of the semester. It is up to each student to contact his/her future university to see if/how these credits will transfer, as it is different from one university to the next.

Cost: Subject to change yearly. Tuition costs for college credit the 2015-2016 school year were \$450.00. Monetary penalties may be incurred for dropping this course.

**Students must also know that there are strict university guidelines for dropping this course if necessary. Our high school deadlines do not apply.

Course Content: Pre-Calculus is intended to prepare students for the study of calculus and other post-secondary mathematics courses and programs. Symbolic representations and manipulations will be a major focus as well as a careful study of a wide variety of functions and their graphs. The topics covered include: rational functions, inverse functions, complex numbers, conic sections, logarithmic functions, trigonometric identities, solving trigonometric equations, vectors, polar coordinates and parametric equations.

Supplies: Students must supply a graphing calculator (Texas Instruments TI-83+, TI-84+, or TI-nspire with TI-84+ keypad) and a 3-ring binder or notebook.

As a result of the uncertainty of CAPP funding by the state. We may need to drop our CAPP agreement with University of Oshkosh. While unlikely should this occur we will communicate immediately with all registered students and parents.