

## **Math Department Blurbs 2020-21**

**Calculus CP** – is a class designed for students who want to learn Calculus on a slower pace without the stress of the AP test. It is recommended for students who want a jump start on Calculus that they would take in college as all concepts will be re taught in semester one of Calculus at the college level. Students who earned a C in IM3H or any student who took Trig and passed should succeed in this class. A firm understanding of all mathematics that has been learned previously will be required to succeed in this class.

**AP Calculus AB** – is recommended for students who earned an A or B in IM3 honors or at least a C in Trig. This class will use all mathematics learned previously and is a good class to take for anyone interested in a STEM major or just wanting to earn the AP credit so that they won't have to take math in college. Depends on the school whether the units will count at all, will count towards math credit or will count as elective credit.

According to the College Board's Calculus Curriculum Framework - "Before studying calculus, all students should complete the equivalent of four years of secondary mathematics designed for college-bound students: courses which should prepare them with a strong foundation in reasoning with algebraic symbols and working with algebraic structures. Prospective calculus students should take courses in which they study algebra, geometry, trigonometry, analytic geometry, and elementary functions. These functions include linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piecewise defined functions. In particular before studying calculus, students must be familiar with the properties of functions, the composition of functions, the algebra of functions, and the graphs of functions. Students must also understand the language of functions (domain and range, odd and even, periodic, symmetry, zeroes, intercepts, and descriptors such as increasing and decreasing). Students should also know how the sine and cosine functions are defined from the unit circle and know the values of the trigonometric functions on the first quadrant of the unit circle and their multipliers."

**AP Calculus BC** – Same as above, but for students who successfully completed AP Calculus AB or CP with a C or better or a passing score on the AP AB test (3 or higher).

**MRWC** - Mathematical Reasoning with Connections (MRWC) is designed to prepare students for the expectations and rigor of college mathematics. MRWC emphasizes collaborative exploration of rich mathematics through innovative activities and engagement with technology. Students will expand their existing mathematical knowledge into new, advanced areas by making connections between old and new topics. The topics to be explored include reasoning with numbers, reasoning with functions, and reasoning with equivalences. Students should be prepared to work hard, take notes, ask questions, and seek extra help when needed.

To sum it up, I would say, we are going to take the concepts you learned in IM1-IM3 and expand on them in a more interactive way. There is a bit of review but its not reteaching.

The Prerequisites for MRWC are IM1-IM3 with a C or better. Its very important that students with a C or greater in IM3 are allowed into MRWC.

## Financial Algebra

**Who Should Take this Course:** EVERYONE! This is the BEST math course ever because it is the most useful. Anyone wanting to take a fourth year of math should take this course, but read the following for more specifics.

### **Good Candidates for Taking this Course are Those Who:**

- 1) Struggle with math and will not do well in Precalculus, AP Statistics or MRWC. MRWC will not be a good choice for most of our seniors. If you would like to know about why, please see me!
- 2) Do NOT plan to major in STEM in college.
- 3) Need to keep up or sharpen their math skills for college.
- 4) Want to learn about personal finance and/or learn about business as a college major.
- 5) Are hard workers.

### **What this Course is NOT:**

- 1) Super hard or super easy. In fact, it leans toward easy as far as 4<sup>th</sup>-year math courses go.
- 2) For those expecting an A or B for doing nothing. They have to DO WORK.
- 3) For those who already have senioritis as juniors.

**SPED:** SPED students who work hard will fare well. Most of the SPED students should be able to take this course IF they are willing to work hard.

Basically, Financial Algebra REQUIRES WORK. My classes usually average 76-80%, which is really good for a fourth-year math class. That includes some F's because some get senioritis and don't do the work. Feel free to contact me if you have any questions.

I am still waiting on Prob and Stats and AP Stats – those classes are great for all students after successfully passing IM3 who want a fourth year of math. It's not an easy class, but the math is not difficult. There is a lot of reasoning, deciphering and testing. I'll let you know what Mac sends me once he does.