Course Summary:
The objective of this course is for students to learn the fundamentals of Calculus 2, vectors and probability, complex numbers, and statistical topics. This is an IB course, upon completion of which students will be ready for the Mathematics HL IB examination. The material covered in this course is comparable but not identical to a 2nd semester college level Calculus course. Students are advised to check with individual colleges to see what, if any, requirements may be fulfilled. There is one internal assessment in the form of a math exploration assigned during the course that students may use to fulfill requirements for the Mathematics HL program. The exploration is a mathematics paper written about a topic of the student’s choosing. The complete curriculum and syllabus are specified by the IB Organization and a detailed course guide is available online. The expectation is that all students have successfully completed a calculus course or its equivalent prior to enrollment.

Grading Policy:
Grades are based on the Highland Park Senior High Grading Policy.
A = >90%
B = 80 – 89%
C = 70 – 79%
D = 60 – 69%
N = 59% or below

Formative assessments assess student understanding while learning is occurring and allows teachers to modify their lessons to facilitate growth. Examples are mini-presentations, daily homework, and homework quizzes. Formative assessments represent 30% of the overall grade for the marking period.

Summative assessments typically take place at the end of a unit. Students must demonstrate their knowledge, understanding of concepts, and/or skills while answering the unit-guiding question based on local, state and national standards and MYP Areas of Interaction. Examples of summative assessments are quizzes, tests, and problem solving challenges (think MYP assessment). These represent 70% of the overall grade for the marking period.

I. Units of Study
The following units are covered in this course throughout the year:

- Volume and Surface Area
- Integration Methods
- Sequences and Series
- Complex Numbers
- Probability
- Statistics
- 2-D and 3-D Vectors
- Equations of Parallel, Perpendicular, and Skew Lines and Planes
- Differential Equations

Helpful Hints:
- I am available for help after school on many days, JUST MAKE THE TIME & COMMUNICATE YOUR INTEREST IN Dropping in (email me / in person).
I WANT TO HELP you be successful in this course – however, your effort is \(\int\) to our success as a team! ☺
- If you are injured – do you wait for days / weeks to obtain help? NO! Ask questions / seek help early! ☺
- Google, classmates, worked problems, textbook, YouTube, teacher, WolframAlpha, Khan Academy, SymboLab, Paul’s Online Math Notes ... There are countless tools in your ‘tool box’. Use them!! ☺