NORTH BRUNSWICK TOWNSHIP HIGH SCHOOL

(2325, 2326) CP Algebra II
Grades 10, 11, & 12
5 credits – one year
Pre-requisite: CP Algebra I and CP Geometry

Course Description:
CP Algebra II is a second year of algebra that requires a solid foundation in CP Algebra I. Topics covered include: solving and graphs of equations - linear, quadratic, absolute value, exponential, logarithmic, and trigonometric; data analysis; factoring (extended to cubics); functions and composition of functions. The unit circle as a function of trigonometry is introduced. The graphing calculator is used in areas of graphing. A T1-83+ or better graphing calculator is highly recommended.

Proficiencies:
At the completion of this course the student will be able to:
1. Perform arithmetic operations with complex numbers.
2. Use complex numbers in polynomial identities and equations.
3. Interpret the structure of expressions.
4. Write expressions in equivalent forms to solve problems.
5. Perform arithmetic operations on polynomials.
6. Understand the relationship between zeros and factors of polynomials.
7. Use polynomial identities to solve problems.
8. Rewrite rational expressions.
9. Create equations that describe numbers or relationships.
10. Understand solving equations as a process of reasoning and explain the reasoning.
11. Represent and solve equations and inequalities graphically.
12. Interpret functions that arise in applications in terms of the context.
13. Analyze functions using different representations.
14. Build a function that models a relationship between two quantities.
15. Build new functions from existing functions.
16. Construct and compare linear, quadratic, and exponential models and solve problems.
17. Extend the domain of trigonometric functions using the unit circle.
18. Model periodic phenomena with trigonometric functions.
19. Prove and apply trigonometric identities.
20. Summarize, represent, and interpret data on a single count or measurement variable.
21. Understand and evaluate random processes underlying statistical experiments.
22. Make inferences and justify conclusions from sample surveys, experiments and observational studies.
23. Use probability to evaluate outcomes of decisions.

Course Requirements:
1. Students will be expected to maintain a high level of participation and preparedness. Students are expected to bring necessary supplies to class daily.
2. Students will be expected to attend class regularly.
3. Students will be expected to complete all assignments.
4. Students will be expected to successfully accomplish all graded work to include unit tests, quizzes and reports, and all class projects.
5. Students will be cooperative in class and contribute to the growth of the class.

Evaluation Procedures:
Marking period grades will be determined by:

Assessments	80%
Homework	15%
Classwork/Preparedness	5%