

Integrated Math 3 Course Outline

Number: 324
Level: General
Textbook: Pre-Algebra, an Integrated Transition to Algebra and Geometry,
Glencoe/McGraw-Hill 2001.
Workbooks: Measuring Up to the New Jersey Core Curriculum Content Standards
for the HSPA, People's Publishing Group, 2005.
Preparing for the New Jersey HSPA Grade 11, Amsco 2001
Credits: 5
Written: July 2005
Revised: August 2008

Prerequisite:

Students are placed in this course based on teacher recommendation and scores on a local HSPA screening test given in the spring. Students who have passed the HSPA may not enroll in this course.

Course Description:

Integrated Math 3 is designed to provide an intensive review for the HSPA. Therefore, students who have already passed the HSPA may not enroll in this course. This course will also review basic algebraic concepts to prepare students for a formal course in algebra. Integrated Math 3 is coordinated with both the Core Content Curriculum Standards and the HSPA proficiencies. Areas studied are number sense, concepts and applications, spatial sense and geometry, data analysis, probability, statistics, discrete mathematics, patterns, functions and algebra. The workbook will be used from the beginning of the year until the HSPA in March. There will be a concentrated mixed review for the HSPA two weeks before the test. After the HSPA Test is taken, the Pre-Algebra book will be used. Mathematical reasoning and problem solving are emphasized throughout the course.

Course Objectives:

Students will be able to:

1. Pass the HSPA in March.
2. Gain a background in Pre-Algebra, enabling them to be successful in Algebra the following year.

Description of Instruction

Students are expected to be active participants in the learning process and the teacher serves as a facilitator of the learning process. Understanding of concepts is stressed rather than rote memorization of skills, relating the work to students' prior knowledge. Class discussions enable students to clarify their understanding of the material being presented. Students will be encouraged to think mathematically and communicate about mathematics through class activities and cooperative learning situations. The student is expected to participate actively in these situations, contributing his/her ideas and asking questions.

Homework will be given almost every day and is an important part of the course, providing students the opportunity to both practice concepts learned in class and strengthen their understanding of the material. It is imperative that students do homework regularly and conscientiously. Homework will be reviewed in class and it is the student's responsibility during the time to ask questions about problems that he/she doesn't understand and to identify specific errors.

Calculators will be used throughout the course to encourage, discovery, problem solving and to apply mathematics to real life situations. Number sense, estimation and proper methods of using the calculator will be discussed.

District Policy: Academic Integrity

Pupils are expected to be honest in all of their academic work. This means that the students in this course will not engage in any of the following acts:

- Cheating on examinations or other school assignments, including but not limited to, the non-authorized use of books or notes, the use of crib sheets, copying from other students' papers, exchanging information with other students orally, in writing, or by signals, obtaining copies of the examination illegally and other similar activities. Cheating through the use of technology to exchange information on any school assignment, examination, etc. is prohibited. Technology is defined as, but not limited to, computers, telephones, text messaging, palm pilots, calculators, cameras or any other hand held device.
- Plagiarism is not permitted in term papers, themes, essays, reports, images, take-home examinations, and other academic work. Plagiarism is defined as stealing or use without acknowledgment of the ideas, words, formulas, textual materials, on-line services, computer programs, etc. of another person, or in any way presenting the work of another person as one's own.
- Falsifications, including forging signatures, altering answers after they have been graded, inserting answers after the fact, erasing of grader's markings, and other acts that allow for falsely taking credit.

A pupil found guilty of academic dishonesty may be subjected to a full range of penalties including, but not limited to reprimand and loss of credit for all of the work that is plagiarized. Disciplinary action may also be a consequence of such behavior. Additional consequences may apply as defined in specific department policies and guidelines.

A teacher who believes that a pupil has been academically dishonest in his/her class should resolve the matter in the following manner:

- Reprimand the student orally and/or in writing. The teacher is also authorized to withhold credit in the work due to academic dishonesty.
- If warranted, the teacher shall file a written complaint against the student with the Administration, requesting a more stringent form of discipline. The complaint must describe in detail the academic dishonesty that is alleged to have taken place, and must request that the matter be reviewed by the Administration.
- The Administration will determine if further discipline of the pupil is appropriate, and will determine the nature of the discipline on a case-by-case basis.
- If the pupil is not in agreement with the disciplinary action of the Administration, he/she may appeal the action first to the Principal and secondly to the Superintendent. If the pupil is dissatisfied with the Superintendent's disposition of the case, he/she may grieve the action in accordance with Policy No. 5710, Pupil Grievance.

District Policy: Equal Opportunity

High Point Regional High School's curriculum and instruction are aligned to the State's Core Curriculum Content Standards and address the elimination of discrimination by narrowing the achievement gap, by providing equity in educational programs and by providing opportunities for students to interact positively with others regardless of race, creed, color, national origin, ancestry, age, marital status, affectional or sexual orientation, gender, religion, disability or socio-economic status.

Student evaluation:

Quizzes, based on the course proficiencies, will be given once or twice a week. Major tests will be given at the end of each unit. An exam will be given at the end of each semester, covering all the work of the semester.

Homework will be checked daily. It will usually not be graded, but will be considered satisfactory if the work shown indicates that the student has made a conscientious effort to complete the assignment. Sometimes the homework may be collected and graded. This will be done only when the concept has been thoroughly discussed and practiced previously. Classwork, including group work, will be evaluated. The student's participation in the class assignment, as well as the completed assignment will be considered in the grade.

Grades will be calculated according to the grading policy and the following guidelines.

- A. Marking Period Grade
 - 1. Quizzes and Tests 70-80%
 - 2. Homework and Classwork 20-30%(Each teacher will explain his/her grading policy for HW & CW)
- B. Final Grade
 - 1. Each Marking Period 20%
 - 2. Midterm 10%
 - 3. Final exam 10%

Student Proficiencies:

Students will be able to:

1. Use real numbers in a variety of real world situations, demonstrating knowledge of the arithmetic rules.
2. Evaluate expressions, solve equations, and apply the properties of addition and multiplication.
3. Create and interpret matrices.
4. Identify and classify geometric shapes, and be able to find the area and perimeter of each.
5. Identify: pairs of angles formed by parallel lines and transversals, supplementary and congruent angle pairs and lines and segments associated with circles.
6. Identify and draw transformations, tessellations and vectors.
7. Find the volume of a prism, pyramid, cylinder, cone, and sphere.
8. Use the Pythagorean Theorem and trigonometry ratios to find the missing side or angle of a right triangle.
9. Find the probability of an event.
10. Create and analyze data, based on statistical analysis and graphs.
11. Recognize and continue varied kinds of patterns.
12. Solve equations and systems of equations and graph linear and quadratic equations.
13. Find the slope, y-intercept, midpoint and length of a line segment.
14. Add, subtract, multiply and simplify polynomials.