

9TH- AND 10TH-GRADE ELECTIVES

FALL 2011

3RD-HOUR MATHEMATICS OPTIONS—10TH GRADE ONLY (MATH IS REQUIRED)

ALGEBRA II (*Mrs. Burton*) Algebra II is a course incorporating the first year of algebra and many trigonometric topics. The student will receive a solid foundation of basic algebra skills and learn many new topics necessary for future math courses. In the first semester, the student will cover analyzing equations and inequalities, graphing linear relations and functions, solving systems of linear equations and inequalities, using matrices, exploring polynomials and radical expressions, and exploring quadratic functions and inequalities. Second semester entails analyzing conic sections, exploring polynomial functions, exploring rational expressions, exploring exponential and logarithmic functions, exploring trigonometric functions, and using trigonometric graphs and identities. (*Pre-requisite: passing grade in Geometry*)

GEOMETRY (*Mrs. Shipman*) The study of Geometry will greatly aid the student in understanding order in God's Universe as it relates to geometrical shapes and reasoning. Points, lines, and planes will be analyzed and utilized in developing geometrical reasoning and proofs. Parallel and perpendicular line relationships will be included. Triangular and various polygonal shapes will be compared for congruence and similarity. Circles and polygons will be included in computations of area, similarity, and congruence. Solid geometry and analysis of planar and spatial loci will complete the study with some computations in probability. (*Pre-requisite: passing grade in Algebra I*)

MATH ANALYSIS (*Mrs. Oh*) A continuation of the Math Analysis/Trigonometry/AP Calculus A sequence that was begun in the summer. (*Pre-requisite: satisfactory completion of the summer portion of this course*)

PRE-CALCULUS (*Mrs. Connors*) Pre-Calculus is a comprehensive course incorporating the entire level of lower mathematics courses, thoroughly preparing a student for AP Calculus AB. In the first semester, the student will cover basic algebra, functions and graphs, polynomial and rational functions, exponential and logarithmic functions, trigonometry, and analytic trigonometry. During second semester, there is a continuation of trigonometric topics, systems of equations and inequalities, matrices and determinants, sequences, counting principles and probability, and analytic geometry. (*Pre-requisite: minimum grade of "B-" in both semesters of Algebra II*)

6TH-HOUR ELECTIVES—9TH AND 10TH GRADES

AP WORLD HISTORY (*Mr. R. Rasmussen*) AP World History has a chronological time frame from of 8000 B.C. to the present. This course requires that students engage with the dynamics of continuity and change across the historical periods that are included in the course. Students are taught to analyze the processes and causes involved in these continuities and changes. Students focus on these five themes: interaction between humans and the environment; development and interaction of cultures; state-building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. (*Pre-requisites: sophomore, junior, or senior standing*)

BAND (*Mr. Sturm*) Students who enroll in Senior High Band will work in an exciting musical performance group. This group will meet with their friends to improve their skills in reading and performing music. Fall activities will include playing in the High School Pep Band as well as performing at Homecoming. Interested students should possess an ability to read music. Band members need to supply their own instruments unless other arrangements have been made. Those who do not have a background in music but are interested in learning how to play an instrument should see Mr. Sturm about private lessons. (*Pre-requisite: an ability to read music and previous instruction on a band instrument*)

CHEMISTRY (*Mrs. Burton*) General chemistry is a lab science which incorporates mathematical principles. It is designed to meet the needs of students who hope to broaden their scientific foundation or who simply need to fulfill a graduation requirement in the area of physical science. Topics covered include a basic understanding of matter and its interactions, gas laws, stoichiometry, chemical compounds and chemical formulas, the periodic table, acids and bases, equilibrium, and organic chemistry. In addition to the lecture portion of the class, lab work will be done periodically. (*Pre-requisites: junior or senior standing [sophomores must obtain approval from the instructor and the academic advisor], a minimum grade of "C" in Algebra II OR be concurrently enrolled in Algebra II*)

JOURNALISM (*Mrs. Herrera*) Journalism introduces reporting and writing for the media. The course focuses on information gathering, interviewing, and writing for print media. Journalism emphasizes news reporting, including the basics of feature writing, journalism law, and ethics.

STRENGTH TRAINING (*Mr. John Rasmussen*) Strength conditioning using free weights and machines. (*Pre-requisite: member of the Faith Baptist football team*) **NOTE: This class DOES NOT count for PE credit.**

STUDIO ART (*Mrs. Grewal*) This full-year class is geared toward design, art appreciation, and art history, as well as a realm of art techniques. Students will be tested over different concepts, and work outside the classroom is required. (*Pre-requisite: none required but Drawing and Design is recommended*)

STUDY HALL WITH ENGLISH TUTORING (*Miss Rollema*) A room which will remain quiet the entire period during which students can work on their homework, study for upcoming tests, or visit the library. Students are also allowed to ask the teacher for additional help with their English assignments.

STUDY HALL A time during which students can work on their homework, study for upcoming tests, or visit the library.

Teacher's Assistant positions are also available.