

**2016-2017 Secondary Curriculum Advisory Council Adopted Courses of Study,  
Revised Courses of Study and Textbooks**

**New Course of Study:**

**Bilingual Geography/World Cultures** - SCAC Approved on November 17, 2016

In this bilingual course, we will examine specific world regions: Latin America, Asia, the Middle East, and Africa. We will focus on the culture, geography, modern history, and governmental and economic systems of these regions. In addition, we will develop fundamental academic and literacy skills in Spanish and English as we work through social studies content.

**Culinary Arts P** - SCAC Approved on November 17, 2016

This hands-on, project-based course explores culinary fundamentals including kitchen skills, nutrition, healthy eating, menu planning, foods from various cultures, sustainable practices and the food service industry. Working in teams, students train in a state-of-the-art, working kitchen. The experiential-based curriculum includes food preparation and presentation, reading of technical documents, measurement, problem solving, project management, reports and presentations, reflection and critical analysis of student work. Guest chefs introduce professional practices and culinary specialties. Students learn about career opportunities in our industry, gain simulated employment experience and practice skills needed to qualify for entry-level positions or postsecondary work. This is the introductory course in a career pathway sequence that may include Intensive Culinary Arts Training at College of Marin. The class prepares students for certification in kitchen safety and sanitation.

**ELD Science** - SCAC Approved February 16, 2017

In this course students will learn about the main practices that scientists use to study the natural world. Students will build models, collect data, and do investigations to help them understand concepts in the physical and life sciences.

**Engineering Technical Design 1 & 2** - SCAC Approved February 16, 2017

Engineering Design 1 is a full, first year course within the Academy of Physics and Technology, an engineering focused program at San Rafael High School spanning three years. The students are engaged in real-world problem solving as they design, construct and test models for a diverse number of applications ranging from rocketry to robotics. The curricular program consists of two courses per year. These courses integrate the investigation of scientific models with the career technical practices of engineering design and fabrication. Active learning is the central curricular philosophy of the Academy. Students construct their knowledge by making observations, building models to describe physical phenomena, and then devise solutions to various engineering problems.

Engineering Design 2 is a full, second year continuation course within the Academy of Physics and Technology, an engineering focused program at San Rafael High School spanning three years. This course continues the previous year's curriculum, deepening the students' knowledge of fabrication techniques with metal, wood, and plastic. Students will be expected to use advanced fabrication tools such as a CNC mill, laser cutter, and 3D printers. Students will also learn to design, test and fabricate electronic devices including robotic systems. In this year of the program, students will also be expected to learn some basic coding using the Arduino microcontroller. The students continue to engage in real-world problem solving as they design, construct and test models for a diverse number of applications ranging from siege weapons to autonomous robotics. The curricular program consists

of two courses per year. These courses integrate the investigation of scientific models with the career technical practices of engineering design and fabrication. Active learning is the central curricular philosophy of the Academy. Students construct their knowledge by making observations, building models to describe physical phenomena, and then devise solutions to various engineering problems. During each quarter, students work towards the completion of a major project. These projects are the key focus of the program and they allow students an in-depth exploration of the application of scientific principles. Ultimately, the program allows students to explore their interests in engineering, gives them direct exposure to the profession of engineering through internships and mentoring

#### Advanced Broadcast (Broadcast 2) - SCAC Approved on March 23, 2017

This course is a continuation of Broadcast 1. Students continue from Broadcast 1 in managing the SRHS Broadcast, the student run broadcast news channel, operations and production. Operating the news program comprises the bulk of the first semester during which students will hone their reporting, management, technical and artistic production skills

#### Algebra 2/Pre-Calculus - SCAC Approved on April 27, 2017

This is a 2–semester double-block class that combines Algebra 2 HP and Pre-Calculus HP courses taught over one year. This course is designed for incoming juniors who intend to take AP Calculus AB or AP Calculus BC their senior year.

*(Note: The Common Core State Standards changed the courses that middle school students take. Algebra 1 which was taught in 8th grade, was moved to 9th grade. Students on the standard pathway enter high school at the algebra level and take Algebra 1 or Algebra A/B. Students who choose in 7th grade to accelerate will study the content of Math 7, Math 8 and Algebra 1 in two years. They enter high school and take either geometry or honors geometry. The new standard presented families with the difficult choice of accelerating their students in 7th grade so that they may take Calculus in high school.*

*To address this problem the mathematics teachers of Terra Linda High School and San Rafael High School met during professional development time. They outlined a pathway for students who chose not to accelerate in 7th grade to reach AP Calculus their senior year. The teachers conceptualized a double-block dual Algebra 2 – Pre-Calculus course to be taught over the course of one year. The course will thoughtfully combine the material of both courses to prepare students for AP Calculus AB or AP Calculus BC the following year. This class is designed to be an honors course and have honors designation.)*

#### Graphic Design 2 - SCAC Approved on April 27, 2017

Graphic Design 2 is an advanced level course that further explores the utilization of the artistic elements and principles of design via digital graphic applications – InDesign, Illustrator and Photoshop -within a real world context.

#### Java Programming - SCAC Approved on July 11, 2017

This course introduces students to basics features of the Java programming language. Students will be introduced to Java primitive and non-primitive data types, control flow constructs, built-in class libraries, Java applets, object-oriented programming concepts such as classes, objects, graphical user interfaces, method overloading, and encapsulation. Assignments and projects will include using built-in and programming defined classes, class composition, inheritance and polymorphism,

abstract classes, interfaces, performing basic input and output operations, writing applets that incorporate images with heavy emphasis on algebraic and geometric patterns. At the end of the course, students submit an original comprehensive final project.

### **Revised Course of Study:**

*(Please note: The “Revised Course of Study” represents revisions made to our existing mathematics course sequence that were previously approved by the Secondary Curriculum Advisory Council at an earlier date. Revisions were made to individual courses so that standards within each course now fully align to the California State Common Core Standards. Although specific standards in some cases were moved from one course to another, the curriculum and sequence for our mathematics program remains unchanged.)*

#### **Algebra A** - SCAC Approved on November 17, 2016

This course is based on our Algebra 1 P curriculum but has been expanded as a 2 year sequence (Algebra A and Algebra B P). The extra time allows for enrichment in terms of bringing in topics and skills from other areas of math, such as geometry) students have not acquired or not mastered through traditional Math 6, 7, and 8. The topics covered are in alignment with the California Common Core standards and the California Mathematics Framework. The extra time allows for in-depth coverage and mastery of the skills outlined.

#### **Algebra B P** - SCAC Approved on November 17, 2016

This course is based on our Algebra 1 P curriculum but has been expanded as a 2 year sequence (Algebra A and Algebra B P). The extra time allows for enrichment in terms of bringing in topics and skills from other areas of math, such as geometry) students have not acquired or not mastered through traditional Math 6, 7, and 8. The topics covered are in alignment with the California Common Core standards and the California Mathematics Framework. The extra time allows for in-depth coverage and mastery of the skills outlined.

#### **Algebra 1 P** - SCAC Approved on November 17, 2016

This course is based on our Algebra 1 P curriculum but has been expanded as a 2 year sequence (Algebra A and Algebra B P). The extra time allows for enrichment in terms of bringing in topics and skills from other areas of math, such as geometry) students have not acquired or not mastered through traditional Math 6, 7, and 8. The topics covered are in alignment with the California Common Core standards and the California Mathematics Framework. The extra time allows for in-depth coverage and mastery of the skills outlined.

#### **Algebra 2 P**- SCAC Approved on November 17, 2016

This course is the third of a three year college prep sequence. Students will be expected to explore and solve mathematical problems, think critically, explore analytical geometry, use counting theorems, and investigate functions. They are expected to read and use mathematical language of algebra correctly, work cooperatively with others and communicate mathematical ideas clearly.

### Geometry P- SCAC Approved on November 17, 2016

This course is the second of a three year College Prep sequence. Students will be expected to explore and solve mathematical problems, think critically, prove geometric theorems, draw and use mathematical diagrams, read and use mathematical language of geometry correctly, work cooperatively with others and communicate ideas clearly.

### Pre-Calculus P - SCAC Approved on November 17, 2016

Pre-Calculus is an upper level survey style course designed to prepare students for any freshman college math course. It is the culmination of high school college prep mathematics. It has as a goal to reinforce the connections between mathematical skills and the extension of their applications. It will involve an investigation of trigonometric and circular functions and work in triangles. As well as their application modeling real life situations. An introduction to differential equations and integral calculus. Applications of probability and statistics. Use of graphing calculators is an important part of this course.

### **Textbooks:**

- Guide to Good Food by Largen and Bence. Publisher: Goodheart-Wilcox copyrighted 2011.
  - SCAC Approved on November 17, 2016
- Inside Language-Literacy-Content by Brenabei, Moore, Short, Smith, Tatum, and Tinajero. Publisher: National Geographic Learning/Cengage copyrighted 2014
  - SCAC Approved on January 26, 2017
- Pre-Calculus (Advanced Math Concepts) by McGraw Hill Education Staff. Publisher: Glencoe McGraw Hill copyrighted 2014.
  - SCAC Approved on April 27, 2017