

AUPP HIGH SCHOOL FOXCROFT ACADEMY

COURSE GUIDE 2020-2021

MATHEMATICS



Algebra I CP

Algebra 1 presents the elementary skills and concepts necessary to continue in college level mathematics. Major topics covered are properties, equations and inequalities, polynomial expressions, graphing, development of the real number system including radicals, and terminating with the study of quadratic equations. Applications of algebraic principles are included, with emphasis placed on problem-solving techniques. Instructional units in the course are aligned to state and national mathematics performance standards.

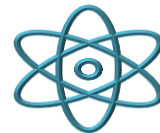
Geometry CP

This course investigates the properties and theorems of Euclidean Geometry. Properties of polygons, space figures, and circles are developed, as well as general principles of congruence. An integrated approach is used to link geometry with algebra. Instructional units in the course are aligned to state and national mathematics performance standards.

Algebra II CP

This course begins with a review of the concepts introduced in Algebra 1 and continues with further development of algebraic skills and concepts. The course also includes topics in discrete mathematics. Emphasis is placed on working with quadratics and higher-degree expressions, equations, and inequalities. Instructional units in the course are aligned to state and national mathematics performance standards (United States).

SCIENCE AND TECHNOLOGY



Physics CP

In Conceptual Physics, students explore mechanics including motion, forces, and energy. An emphasis is placed on hands-on investigation of Physics principles. At the Standard Level, relationships between velocity, acceleration, forces, and energy are developed through laboratory experiences. Scientific Practice skills are assessed through formal lab reports (digital labs) and performance objectives. Conceptual Physics is considered a lab science.

Chemistry CP

The objective in chemistry is for students to investigate the properties of atoms, chemical bonding, and chemical reactions. Students develop conceptual aptitude in the chemical sciences through scientific inquiry (laboratory activities). Students will develop their skills in problem solving, scientific reasoning and communication by writing formal laboratory reports. Chemistry at the CP or Honors level is considered a lab science.

Biology CP

Biology encompasses coursework in the following content standards: Structure and Function, Inheritance and Variation, Matter and Energy in Organisms and Ecosystems, Interdependent Relationships in Ecosystems, Natural Selection and Evolution, and Scientific Practices. The use of the environmental surroundings and technology serve to enhance student's progress toward meeting the course standards. Biology at the CP level is considered a lab science.

SOCIAL STUDIES



Global Politics CP

This course focuses on the important themes and concepts in comparative governments and the influence of geography in different regions of the world. Specific cases studies will include numerous countries, and students will learn about and be assessed on core knowledge of governments, cultural basics and issues, and current events. Cross-country comparisons will be made throughout the semester.

American History A CP

This course is a study of American History beginning with European Colonization and concluding with the Populist movement associated with the Gilded Age (1880's). Subtopics include: The American Political System, Wars and Rebellion, American Capitalism, and Changes of American Culture.

American History B CP

This course is a study of American History beginning with the Spanish-American War and concluding with the end of the Cold War. Subtopics include: The American Political System, Wars and Rebellion, American Capitalism, and Changes of American Culture.

WELLNESS



Health

This course offers a broad selection of health-related topics to meet the needs, interests, and backgrounds of all students. Topics include wellness, stress management, sexual harassment, domestic violence, CPR, best practices (sexuality), nutrition and eating disorders.

Physical Education

Physical education activity units are designed to provide students with opportunities to acquire fundamental skills and knowledge of rules, strategies, and principles of movement. Instruction and participation in team sports satisfy the immediate needs and interests of the students. In addition, their future needs are anticipated and planned for through the teaching of lifetime activities. Activities could include fitness assessments, archery, badminton, floor hockey, ultimate frisbee, tchoukball, volleyball, and pickle-ball.

ENGLISH LANGUAGE ARTS



English I CP

This course is based on such writing standards as Writing and Expression, English Conventions, and Research and Citation Procedures, which are assessed through rough drafts, editing, revision of essays and creative writing. The standard of Reading and Culture is assessed through the study of the genres of fiction, drama, and poetry. Authors included at this level range from Homer to Dickens, Shakespeare to Steinbeck, and Orwell to Cisneros. All standards will be addressed each year and at each level. CP English provides a basis for subsequent levels of English study and is intended for those students planning to attend a two or four-year college.

English II CP

This year two courses are based on such writing standards as Writing and Expression, English Conventions, and Research and Citation Procedures, which are assessed through rough drafts, editing, revision of essays

and creative writing. The standard of Reading and Culture is assessed through the study of the genres of fiction, drama, and poetry. Authors included at this level range from Shakespeare to Twain, Knowles to Bradbury, and Wordsworth to Cummings. All standards will be addressed each year and at each level. CP English provides a basis for subsequent levels of English study and is intended for those students planning to attend a two or four-year college.

Topics In English CP: Myths, Legends, And Their Heroes

Literature, art, politics, and religion find their earliest roots in the broad oral tradition of storytelling. Long before the Medieval bard, humans were drawn to stories of creation and adventure. Myths have served a variety of critical roles throughout our history. From memorializing historical events to explaining the bizarre natural world around us, we seek to understand the human condition through our myths. The class will explore a variety of cultures: from the traditional myths of Greece, Rome, and Egypt to the folklores of Europe, Asia, Africa, and the Americas (including our local Abenakis). The course will draw on a variety of anthologies, reimagined fairy tales and works of literature, such as the Aeneid, Grimm's Fairy Tales, The Legend of Sigurd and Grudun and Ichiro. Reading, research writing, creative writing and other forms of creative expression are integral to this course.

STEAM: ENGINEERING



Civil Engineering

Civil engineering career helps shape modern society by designing, planning, and managing the construction of complex infrastructures such as bridges, roadways, and commercial developments. In the near future, the role of civil engineers will involve more than the application of technical skills and engineering principles to develop new infrastructures. In STEAM program, the objective is to a) Help students to remind what have learnt and prove that can be applied the civil engineering practice b) Provide students with an appreciation of the nature of the civil engineering profession and its range of activities c) Provide students with an

awareness and appreciation of the different types of projects that civil engineers undertake and the way in which the profession operates. d) Introduce the principles of sustainability within the construction industry and provide cases studies to illustrate good practice e) Introduce students to the concepts of structural form (bridge in this case) and its role in civil engineering design f) Introduce students to graphics communications for civil engineers including freehand sketching and/or computer aided design (CAD). g) Help students to develop their skills in problem solving, generate laboratory report and communication in a given project.

WORLD LANGUAGES



Chinese I

This introductory course engages students in language learning, including: Mastering common vocabulary terms and phrases, comprehending a wide range of grammar patterns, participation in simple conversations and responding appropriately to basic conversational prompts, and generating language incorporating basic vocabulary and grammar patterns. The course also helps students read, write, speak, and listen for meaning in basic Chinese and regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions.

ART



Art and Design

The Art & Design encourages a range of skills, stimulates aesthetic awareness, knowledge and critical understanding of art, and provides opportunities for learners to develop a range of skills. Crucially, a personal and independent perspective is encouraged at all times. This course has been designed to offer a broad choice of media and approaches so that students can produce a personal response and schools can play to their strengths in terms of staff expertise and interests. The broad areas of study are: Painting and related media, Print making, Three-dimensional design, Photography and Digital media, and Graphic communication.