UNITED STATES HISTORY PART 1- GRADE 10 | 1 UNIT

426 HONORS 427 COLLEGE PREP

Extending the developmental skills and knowledge, this course will seek to expand, broaden and deepen familiarity with an understanding of geographical and historical concepts. Students begin their study with a review of the origins and main events of the American Revolution, Constitution, democratization and expansion, economic growth in the North, South, and West, social, political, and religious change, the Civil War, Reconstruction, immigration and industry, and progressivism leading into World War I and World War II. The course emphasis will be on higher-level thinking exhibited through writing historical essays, research, and a variety of activities. Moving at a faster pace, the Honors class explores historical themes in depth. Additional independent work and readings are assigned.

AP UNITED STATES HISTORY - GRADES 11-12 | 1 UNIT

433 ADVANCED PLACEMENT

Prerequisite: Teacher recommendation and US History Part 1 preferred

The Advanced Placement U.S. History course is designed to prepare students for the AP exam as well as intermediate and advanced college classes. As such, it is modeled after an entry-level college course and will prioritize extensive reading and writing. Additionally, the course will provide students with the opportunity to critically analyze, discuss, evaluate, and debate United States history to demonstrate a complex understanding of our country's events as well as better understand their role in society. Registration for this AP course commits students to the end of the year AP test.

UNITED STATES HISTORY PART 2- GRADE 11 | 1 UNIT

436 HONORS 437 COLLEGE PREP

Prerequisite: US History 1 preferred

This course in American History seeks to build on and hone those skills that will be needed for post high school study. This course will seek to examine cultural, political, and diplomatic events, personalities, and themes beginning with: Economics, World War I, the roaring 1920's, the Great Depression, New Deal, World War II, Korean War, Vietnam, Civil Rights, the Cold War, the War on Terror. The course will require guided research, emphasizing critical thinking through the examination of primary and secondary sources, and the writing of informative and argumentative essays. Students will also be expected to complete a mandatory Civics Project. The student-led Civics Projects will ask students to apply civic knowledge, skills, and dispositions to engage with the process of creating social and political change in their communities. Moving at a faster pace, the Honors class explores historical themes in depth. Additional independent work is assigned.

PSYCHOLOGY - GRADE 10-12 | 0.5 Units

440 UNLEVELED (Semester)

The purpose of this course is to present a scientific, accurate, and thorough overview of psychology. This course consists of an analysis and evaluation of people and their behavior. Students will analyze the physical and mental development of the human body and brain, analyze theories of personality development, describe the characteristics of psychological disorders, and explain various treatments of psychological disorders. Students ultimately will be able to completely describe the characteristics of a psychological disorder, describe how it affects personality, identify how and when the disorder might have developed in a person's life, and finally describe what therapy might be used to treat the disorder. Particular stress will be placed on the transition from adolescence to adulthood. Assessments will be based on classwork, quizzes, tests, and culminating projects.

INTRODUCTION TO CRIMINAL JUSTICE - GRADES 10-12 | 0.5 Units

449 UNLEVELED (Semester)

In this course, students will develop an understanding of the functions of the various agencies and components of our criminal justice system. Students will be introduced to the three major branches that make up the criminal justice system – law enforcement, the judicial system and the corrections component. Students will focus on the history of the criminal justice system, the connection and interpretation of the Constitution and the current issues facing members of our criminal justice system. This course is designed to stimulate interest for further study in the law and law enforcement and the possible pursuit of a career in this field.

AP UNITED STATES GOVERNMENT AND POLITICS - GRADE 11-12 | 1 UNIT

459 ADVANCED PLACEMENT

Pre/Co-requisite: US History II or APUSH and teacher recommendation preferred

Advanced Placement United States Government and Politics is an intensive study of the formal and informal structures of government and the processes of the American political system, with emphasis on policy-making and implementation. This course includes both the study of general concepts used to interpret U.S. government and politics as well as the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes in government and politics. Additionally, students will be able to analyze and interpret basic data relevant to U.S. government and politics. The concepts and specific topics examined in this course are those that may appear on the AP exam. Students will be required to write a major research paper. Registration for this AP Course commits students to the end of the year AP test.

ECONOMICS* - GRADES 11-12 | 1 Units

460 HONORS

This full-year course is designed to provide students with a fundamental understanding of the economy and their role in it. The tools and skills learned in class will give students the ability to critically analyze the world around them through a new economic and financial lens to help better inform day-to-day decision making. Topics include basic economic principles, supply and demand, business, finance and the stock market, and macroeconomic trends. The course includes projects, simulations, stock market contests, business simulations, the book Freakonomics, and more.

**This class meets the technical course requirement of Innovation Pathways-Business and Finance, with the option to acquire certification in QuickBooks.*

AP ECONOMICS - GRADES 11-12 | 1 Units

463 ADVANCED PLACEMENT

Prerequisite: Teacher recommendation preferred

AP Economics is a full year course that offers an introduction to both Microeconomics and Macroeconomics. Microeconomics will focus on the behavior of individuals, businesses, governments, and markets within specific economic systems. Macroeconomics will focus on economic systems as a whole by analyzing labor markets, aggregate supply and demand, economic growth, etc. Both courses will utilize graphs, charts, and data to analyze and explain economic concepts. The course prepares students for both the AP Microeconomics and AP Macroeconomics exams.

SOCIAL JUSTICE AND TEENS - Grade 11-12 | 0.5 Units

462 UNLEVELED (Semester)

The Social Justice and Teens class is committed to having open discussions about inequities in race, sexuality, gender, class, and ability. In this course, students will be encouraged to have open minds when working on issues connected to prejudice, bias, and privilege. Students will discuss major social issues and try to promote change within the FHS community and beyond.

HISTORY'S MYSTERIES - GRADES 9-12 | 0.5 Units

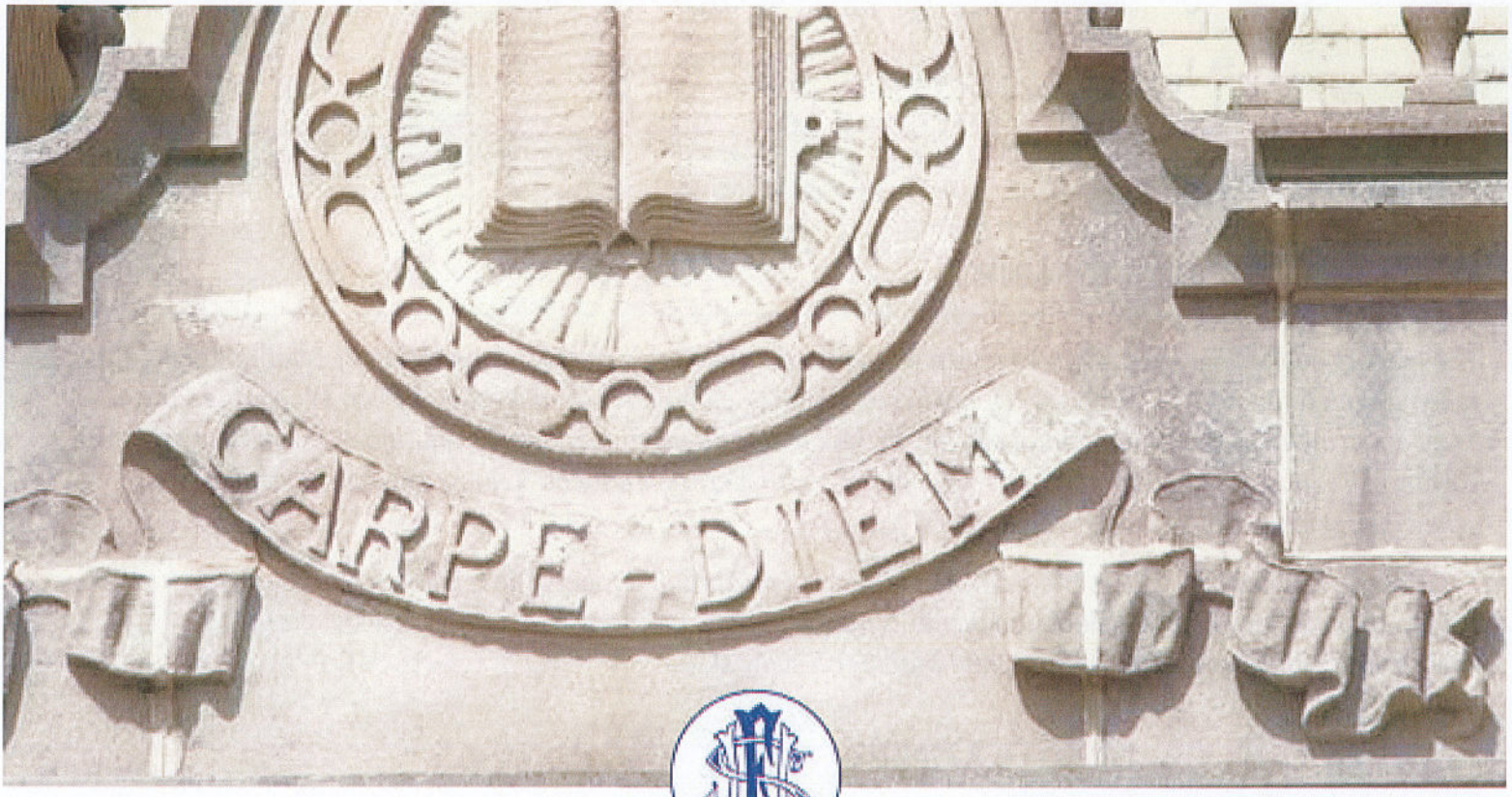
XXX UNLEVELED (Semester)

This one semester elective will provide students with an interdisciplinary approach to history encouraging them to investigate unsolved mysteries of the past. Students will develop their inquiry skills, acquire background knowledge and conduct analytical research while investigating "high-interest" mysteries.

LOCAL HISTORY- GRADES 9-12 | 0.5 Units

472 UNLEVELED (Semester)

Students will engage in the history of their local communities by studying the history of New Bedford, Dartmouth, Fairhaven, Acushnet, and Westport. It will include the study of local economics, natural disasters, national movements, interesting sights, and more. Students will learn about the importance of the whaling and textile industries as well as learn about major figures in the anti-slavery movement. Some of the names students may learn about are Frederick Douglass, Lizzie Borden, Herman Melville, Henry Huttleston Rogers, Manjiro Nakahama, Franklin Delano Roosevelt, Joshua Slocum, Massasoit, Metacomet, visitors to Fairhaven such as Booker T. Washington, Anne Sullivan, Helen Keller, and Mark Twain.



MATHEMATICS COURSE OFFERINGS

Mathematics plays an important role in our daily lives and is a critical component for college and career success. It is recommended that a student complete a rigorous program of study that includes four years of math coursework and includes the minimum sequence of Algebra 1, Geometry, and Algebra 2. This foundation in mathematics will be a definite asset to any student, regardless of the field of work or study a student plans to pursue. The Mathematics Department offers two levels of sequenced courses, along with select AP courses and additional elective courses, from which to choose. All offer the necessary preparation for state testing, but in different formats and at different paces.

The student, when selecting courses, is advised to choose the most challenging math course consistent with his/her background and ability. It is recommended that a student earn a C- or better in order to proceed to the next sequential course. If the student has any doubts or questions regarding the proper choice, consultation with their present math teacher or the Academic Lead is recommended.

In line with the Massachusetts State Frameworks, the minimum entry-level course for all freshmen is Algebra 1. Students interested in taking AP math courses should select a pathway that successfully completes Algebra 2H by the end of their sophomore year. The use of calculators is integrated into the instruction of all courses and it is recommended that the students have a scientific calculator. Students taking Pre-Calculus would benefit from using a graphing calculator. Students electing AP Calculus are required to have a graphing calculator. Please see one of our math teachers or academic supervisor for preferred calculator models.

Note: The Fairhaven High School Program of Studies reflects potential course offerings for the 2025-2026 school year. Student interest, class size, and teacher availability often influence course offerings. Courses and levels may be combined in order to meet minimum class size requirements.

ALGEBRA 1 - GRADE 9 | 1 UNIT

111 HONORS 112 COLLEGE PREP

The Honors course in algebra aims to give a student a strong comprehensive foundation of algebraic skills. It is recommended for students who are capable of doing work on an advanced level and at an accelerated pace. The course includes the fundamental properties, linear equations, and quadratic equations as well as problem-solving skills. It is designed for students who intend to further their education in mathematics, computers, science, or engineering.

The College Prep course covers the traditional topics of algebra and meets the minimum standards for college preparation. Topics include properties of real numbers, methods of equation solving, graphing linear equations, quadratic equations, and problem-solving skills.

ALGEBRA LAB - GRADE 10 | 0.5 UNIT

113 COLLEGE PREP (Semester)

Mandatory co-requisite with Algebra 1 CP

This course is an extension of Algebra 1. It allows the student to complete their study of algebra by concentrating on the topics of linear functions, probability and statistics, and graphical displays of data. Furthermore, it reinforces topics being taught in the student's Algebra 1 classroom. Projects, simulations, and applications are emphasized.

GEOMETRY - GRADE 9-10 | 1 UNIT

121 HONORS 122 COLLEGE PREP

Prerequisite: Algebra 1 H or teacher recommendation

This course in geometry is recommended for students who are capable of doing the work on an advanced level and at an accelerated pace. Topics include plane geometry (including formal proofs, construction, and loci), a review of algebra, introductory work in transformations, solid and coordinate (analytical) geometry, and practice for standardized college admissions tests. In order to achieve success in this course, students should have a strong foundation in Algebra 1, good reading skills, an ability to make good logical deductions, and the determination to complete challenging homework assignments on a daily basis.

Prerequisite: Algebra 1

Geometry College Prep is a continuation in the sequence for students having completed Algebra 1. Topics include plane geometry covering properties of angles, lines, planes, quadrilaterals and other polygons, and circles. Students will apply measurement formulas to find perimeters, areas, and volumes of 2- and 3-dimensional figures. Algebra is reviewed throughout the course.

ALGEBRA 2 - GRADE 10-11 | 1 UNIT

131 HONORS 132 COLLEGE PREP

Prerequisite: Geometry H or teacher recommendation

In this course students will continue the study of algebra, including linear and quadratic equations, inequalities, systems of equations, polynomials, exponential and logarithmic functions, and coordinate geometry. The pace and difficulty of the course are geared for students who are interested in pursuing careers in mathematics, science, and/or engineering.

Prerequisite: Algebra 1

The College Prep course provides the opportunity for all students to prepare for college-level algebra. A good foundation in Algebra 1 is recommended for success in this course, which includes quadratics, factoring, systems of equations, and problem-solving.

ALGEBRA 2 WITH FINANCIAL APPLICATIONS - GRADE 11-12 | 1 UNIT

132F COLLEGE PREP

Prerequisite: Algebra 1

This course provides the opportunity for students to learn and apply advanced Algebra 2 concepts such as quadratics, factoring, systems of equations, and problem solving to real-life financial scenarios such as automotive and home financing, employment, taxes, investments, credit, banking, budgeting, and discretionary spending.

**This class meets the technical course requirement for Innovation Pathways-Business and Finance, with the option to acquire a certificate of completion in Money Smart (US Treasury Curriculum).*

PRE-CALCULUS* - GRADE 11-12 | 1 UNIT

141 HONORS 140 COLLEGE PREP

Prerequisite: Algebra 2 H and teacher recommendation

This course sequentially follows Algebra 2 Honors and is recommended for students who intend to further their education in mathematics, computers, sciences, or engineering. The challenging content includes the study of functions, trigonometry, analytic geometry, and an introduction to calculus.

**This class meets the advanced course requirement of Innovation Pathways-Business and Finance.*

QUANTITATIVE REASONING - GRADE 12 | 1 UNIT

147 COLLEGE PREP

Prerequisite: Algebra 2

This course is designed to follow Algebra 2. The focus is on applying mathematics in real-world contexts by modeling domains of Algebra, Geometry, and Statistics. Students will deepen their structural use of numbers, analyze quantitative data, and apply this within the decision making framework. This course is an alternative to Pre-Calculus or Statistics and an option for students considering non-STEM career fields.

STATISTICS - GRADE 12 | 1 UNIT

148 HONORS

Prerequisite: Algebra 2 H or Trigonometry

This course is comparable to a college course in Statistics. Topics will include data classification, experimental design, frequency distributions and their graphs, measures of central tendency, measures of variation, basic concepts of probability, conditional probability and the multiplication rule, counting principles, probability distributions, normal distributions, confidence intervals, and hypothesis testing.

AP STATISTICS* - GRADE 12 | 1 UNIT

149 ADVANCED PLACEMENT

Prerequisite: Pre-Calculus H (or co-requisite) and teacher recommendation preferred

The curriculum is a prescribed scope of topics comparable to a first semester college course in Mathematical Statistics and Probability. Topics will include data classification, experimental design, frequency distributions and their graphs, measures of central tendency, measures of variation, basic concepts of probability, conditional probability and the multiplication rule, counting principles, probability distributions, normal distributions, confidence intervals, hypothesis testing and regression. Since it is required that a student use a graphing calculator for the exam, it is expected that the student has one throughout the school year. Registration for this AP course commits students to the end of the year AP exam.

**This class meets the advanced course requirement of Innovation Pathways-Business and Finance.*

AP CALCULUS AB or BC - GRADE 12 | 1 UNIT

150 AB 153 BC ADVANCED PLACEMENT

Prerequisite: Pre-Calculus and teacher recommendation preferred

These AP Calculus curriculum are a prescribed scope of topics comparable to a first-semester college Calculus course. Broad topics of continuity, limits, derivatives, and integrals will be covered and represented in four ways: graphically, analytically, numerically, and verbally. It is expected that the student will take the AP exam given at the end of the school year and, depending on the score, may earn college credit for the course. Since it is required that a student use a graphing calculator for the exam, it is expected that the student has one throughout the school year. Registration for this AP course commits students to the end of the year AP test.

CALCULUS - GRADE 12 | 1 UNIT

151 HONORS

Prerequisite: Pre-Calculus

For students who have completed Pre-Calculus, this course covers topics of continuity and limits; derivatives of algebraic, trigonometric, exponential and logarithmic functions; related applications; and graphs of functions and their derivatives. It is recommended to students who are interested in mathematics, science and/or engineering in college.

SPORTS ANALYTICS - GRADE 9-12 | 0.5 UNIT

127 UNLEVELED (Semester)

In this course, students will combine their passion for sports and knowledge of mathematics to examine topics about analysis across a broad range of different sports by collecting data, analyzing findings, and articulating their findings using topics, sports, or athletes of choice. They will explore advanced statistics that are becoming more prevalent and learn how to analyze and interpret data from statistics to study professional athletes and team performance. Students will also research the use of technology and how it is used to analyze player performance. In addition students will learn about the business of sports analytics and the pioneers in the field.

TEST PREP - GRADE 11-12 | 0.5 UNIT

145 UNLEVELED (Semester)

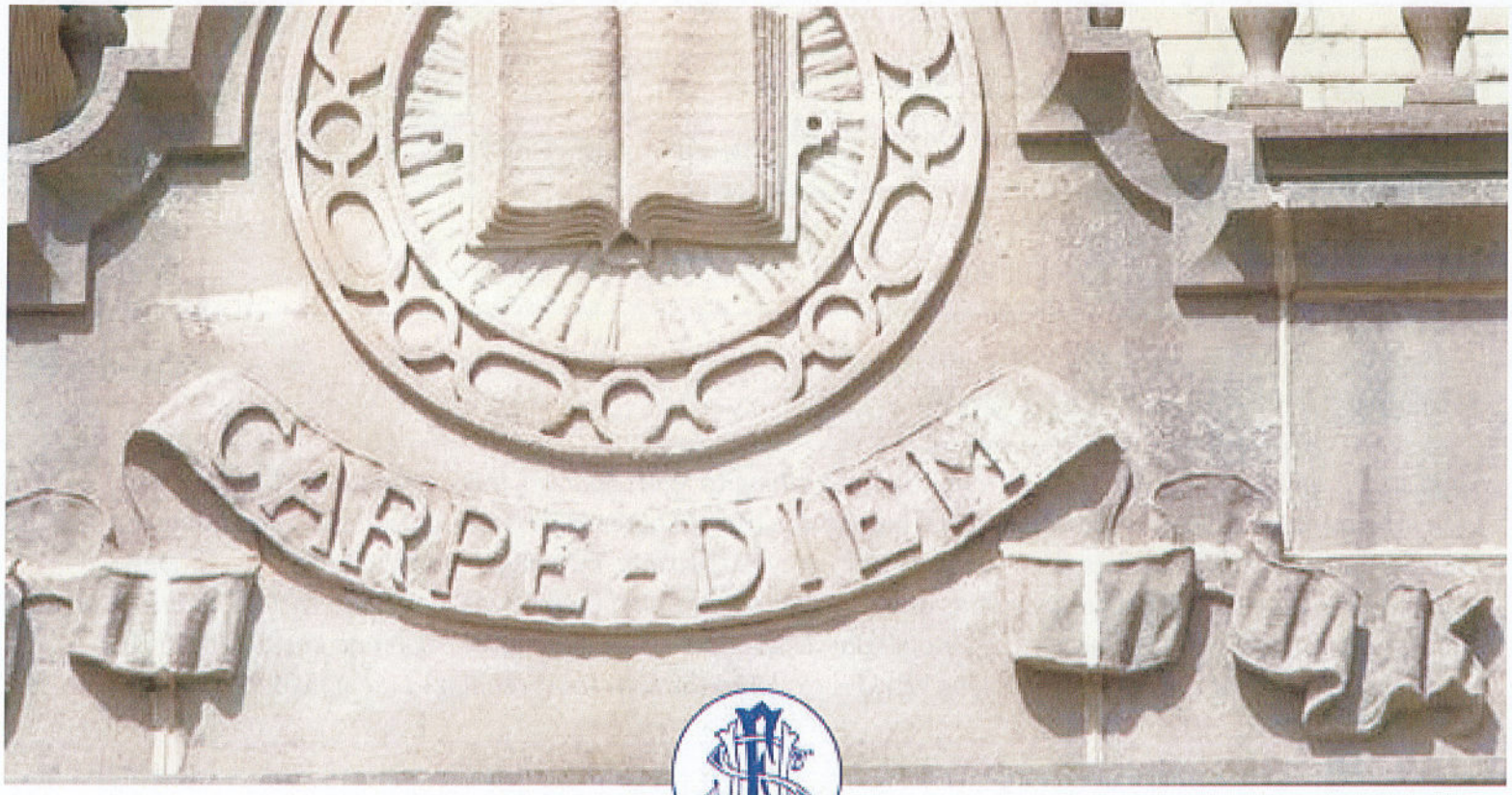
This course focuses on providing students with the necessary skills and strategies to achieve their best scores on standardized tests such as the SAT by teaching key math, reading, and writing strategies and concepts, familiarizing them with exam formats, and offering extensive practice questions and tests. Emphasis will be placed on effective test-taking techniques to maximize student performance on those exams.

FINANCIAL LITERACY* - GRADE 12 | 1 UNIT

143 COLLEGE PREP

This course is available to senior students who have passed Algebra 2. Students will learn mathematical life skills needed to live and work independently while making sound consumer decisions. The topic relates to everyday needs of the consumer and includes banking, budgeting, credit cards, loans, interest, sales, property, and income taxes. It also includes comparison shopping, unit pricing, investing, and applications of the philosophy of "Pay Yourself First." Emphasizing real world applications, this course is modeled after the National Endowment for Financial Education program.

**This class meets the technical course requirement for Innovation Pathways-Business and Finance, with the option to acquire a certificate of completion in Money Smart (US Treasury Curriculum).*



WORLD LANGUAGE COURSE OFFERINGS

In this rapidly changing world, proficiency in a world language is more important than ever. In addition to learning an appreciation for other people's values and way of life, knowledge of another language can provide opportunities for communication on a personal level as well as preparing for careers in commerce, international relations, law, science, and the arts. All students must complete two years of the same classroom world language.

Note: The Fairhaven High School Program of Studies reflects potential course offerings for the 2025-2026 school year. Student interest, class size, and teacher availability often influence course offerings. Courses and levels may be combined in order to meet minimum class size requirements.

SPANISH 1 - GRADE 9-12 | 1 UNIT

216 COLLEGE PREP 217 HONORS

Spanish 1 is an introductory course for any student wishing to learn Spanish. It is designed for those students with little or no prior knowledge of Spanish. Through the use of cooperative learning strategies and hands-on projects and activities, students work toward proficiency in speaking, listening, reading, and writing. Students begin their writing with short compositions about family, friends, and themselves. Paired activities encourage and allow students to express themselves, their opinions, likes and dislikes. An appreciation and knowledge of the culture and history of the Spanish speaking world is explored through short readings and individual/group research.

Honors level students progress through these topics at an accelerated and more challenging pace.

SPANISH 2 - GRADE 9-12 | 1 UNIT

226 COLLEGE PREP 225 HONORS

Prerequisite: Spanish 1 (Grades 7&8) or Spanish 1 (Grades 9-11)

Spanish 2 continues to develop and reinforce skills presented in Spanish 1. After a thorough review, students continue to develop their language skills through a variety of strategies and activities and through the use of instructional media. Emphasis is on using Spanish in meaningful ways through paired activities, cooperative learning strategies, hands-on projects, games, music, and communicative activities. Students continue to expand their writing through a variety of assignments structured to improve their writing skills. Appreciation and knowledge of the Spanish speaking world continues to be developed through short readings and projects.

Honors level students progress through these topics at an accelerated and more challenging pace.

SPANISH 3 - GRADE 10-12 | 1 UNIT

236 COLLEGE PREP 235 HONORS

Prerequisite: Spanish 2

Spanish 3 places emphasis on developing speaking and writing skills. Students review previous structures as well as learn more advanced structures. More emphasis is placed on developing a proficiency of expression using a variety of tenses with more expanded vocabulary and grammatical structures. Emphasis is placed on using Spanish in a meaningful way through continued use of paired/group activities, cooperative learning, hands on projects, presentations, discussion, games, music, and communicative activities. Curriculum continues to be reinforced through the use of instructional media. Students continue with writing assignments designed to improve proficiency to a higher level. Appreciation and knowledge of the Spanish speaking world is continually promoted through readings, projects, and class discussion.

The Honors class is conducted mostly in Spanish. Spanish 3 Honors offers a challenging, fast-paced curriculum with the opportunity to develop all skills to a more sophisticated level of expression and comprehension.

SPANISH 4 - GRADE 11-12 | 1 UNIT

245 HONORS

Prerequisite: Spanish 3

This class is conducted entirely in Spanish. Spanish 4 Honors is a continuation of the study of the Spanish language and culture with continued emphasis on improving proficiency in speaking, listening, reading, and writing. Grammatical concepts are reviewed and refined. Vocabulary development in both reading and speaking continues to be a focus in an effort to help the student attain greater ease in self-expression in Spanish. Oral presentations and compositions are required. Students continue to write compositions on a variety of topics. Group conversations and paired work are frequent with students reacting to a partner's statement.

AP SPANISH - GRADE 11-12 | 1 UNIT

256 ADVANCED PLACEMENT

Prerequisite: Teacher recommendation preferred

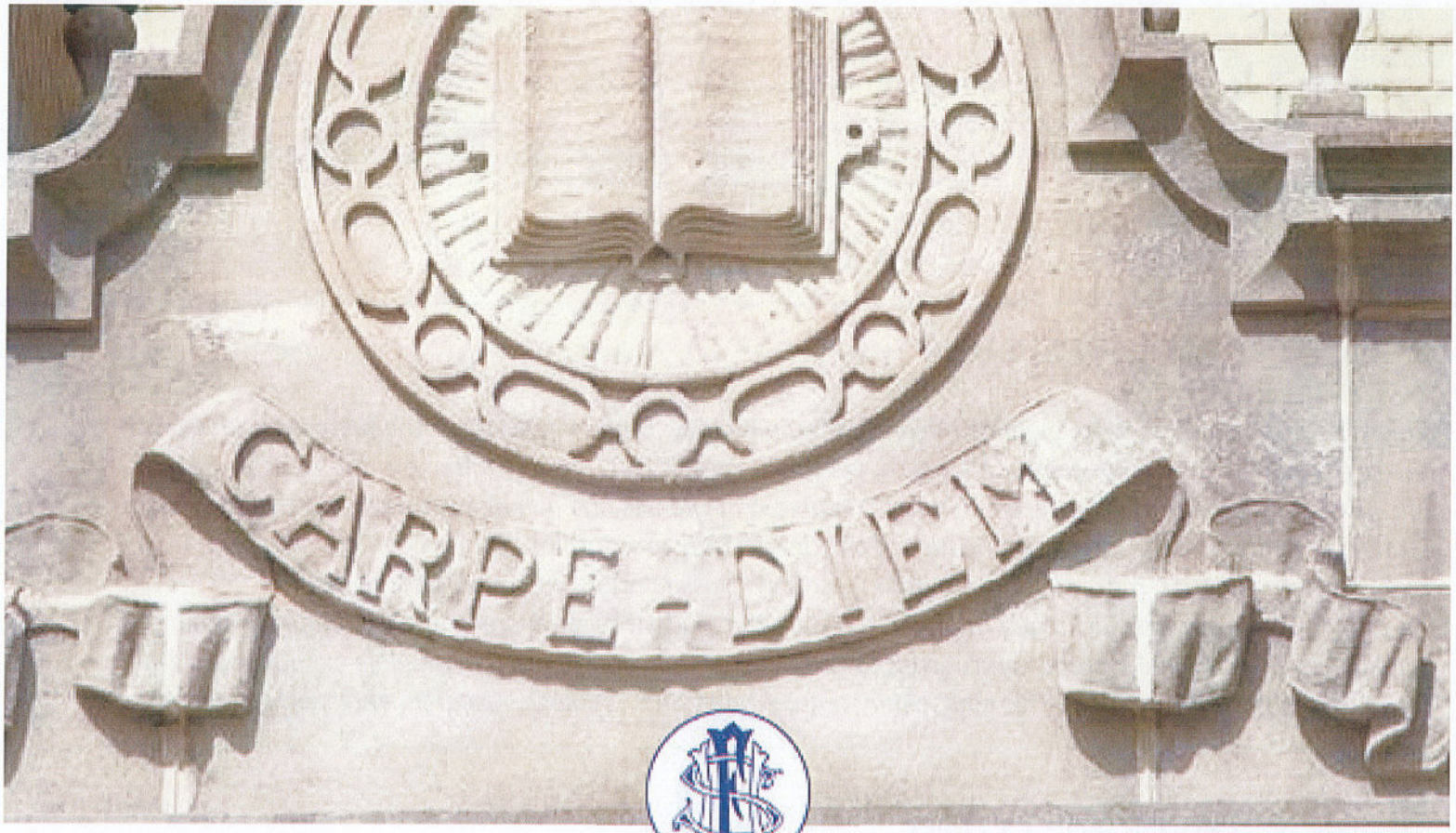
This course is conducted entirely in Spanish. This course is appropriate for those students wishing to continue their study of Spanish and prepare for the AP Spanish Language Exam given in May. This intensive course will emphasize the use of language for active communication. In addition to focusing on the ability to understand spoken Spanish in various contexts, students will build vocabulary sufficiently ample for reading newspaper, magazine articles, and literary texts without dependence on a dictionary. Additional emphasis will be on the ability to express oneself coherently, resourcefully, and with reasonable fluency and accuracy in both written and spoken Spanish. Group conversations are frequent as well as paired work with students reacting to a partner's statement. Registration for this AP course commits students to the AP test at the end of the year.

ROSETTA STONE - GRADE 10-12 | 1 UNIT

257 COLLEGE PREP OR HONORS

Prerequisite: Two consecutive classroom-based courses of world language (or waiver from the principal)

Rosetta Stone is an interactive computer program that teaches a new language by immersion, rather than by traditional classroom methodologies. The program entails listening, speaking, reading, and writing methods with words, images, and the voices of native speakers. The method lets you progress naturally from words and phrases to sentences and conversations. The Rosetta Stone program offers up to 31 different languages to choose from. Current Offerings: Arabic, Chinese (Mandarin), Danish, Dutch, English (American), English (British), Filipino (Tagalog), French, German, Greek, Hebrew, Hindi, Indonesian, Irish, Italian, Japanese, Korean, Latin, Pashto, Persian (Farsi), Polish, Portuguese (Brazil), Russian, Spanish (Latin America), Spanish (Spain), Swahili, Swedish, Thai, Turkish, Vietnamese, and Welsh. Honors Level credit may be issued with the successful completion of additional assignments and projects.



NATURAL & PHYSICAL SCIENCE COURSE OFFERINGS

Living in today's world, dominated by advances in science and technology, requires that all students develop an intellectual base in the sciences and an ability to think critically. We must be able to assimilate new data, generate ideas, and draw logical conclusions based on the facts if we are to progress in the ever more competitive international marketplace. Decisions concerning pollution, nuclear power, toxic waste disposal, food additives, genetic engineering, population control, sewage treatment and the greenhouse effect will have to be made by enlightened citizens in a rational manner.

To this end, the science curriculum at Fairhaven High School is designed to: a) develop within students the abilities to inquire, gather data, and draw conclusions, b) help students understand the major "laws of nature" and their applications, c) teach students the skills necessary to think critically in order to evaluate the quality of data available, and d) provide students with a broad background in the natural sciences.

Note: The Fairhaven High School Program of Studies reflects potential course offerings for the 2025-2026 school year. Student interest, class size, and teacher availability often influence course offerings. Courses and levels may be combined in order to meet minimum class size requirements.

BIOLOGY - GRADE 9-11 | 1 UNIT

327 COLLEGE PREP

This lab course is designed to examine major themes in biology. Students will learn the facts associated with the science of life, as well as focus on higher-level thinking skills that are a requirement for successful adult life. The topics of biology are presented within a pattern of themes and in a historical perspective that helps students understand the larger significance of the details they are learning. Topics covered include biochemistry, genetics, reproduction, evolution, ecology, classification, and microbiology. Laboratory investigations within the course are intended to teach the student basic microscopic techniques, computer application to biological systems approaches to problem-solving, and to provide tangible experiences with lab-based biological materials. This course may require additional readings, research, and special project(s).

BIOLOGY - GRADE 9-11 | 1 UNIT

326 HONORS

Prerequisite: Teacher recommendation preferred

This lab course is designed for students with an aptitude and high interest in the study of biology. It is designed to examine major themes in biology by actively engaging students in the learning process through activities, laboratory investigations and projects. Through inquiry, students will learn about the diversity of life, the interrelationships existing between organisms and their surroundings, and how organisms have adapted and changed throughout time. Emphasis will be placed on learning biology and understanding biological topics that will provide students with a foundation for chemistry, honors chemistry, or AP Biology in subsequent years.

ENVIRONMENTAL SCIENCE - GRADE 10 | 1 UNIT

347 COLLEGE PREP

Prerequisite: Biology

In this full year lab course, covers a broad range of topics including weather and climate, biodiversity, ecosystem management, energy transfer and balance, population growth, biology, environmental impacts, geology, earth resources, and geography. A range of hands on activities provide opportunities for students to develop an understanding of the environment. This is a teacher-guided inquiry-based course helping students navigate important science concepts through hands-on investigations. Students study environmental problems currently facing our world. In addition, this course provides the foundation for future enrollment in either Chemistry or Physics.

ENVIRONMENTAL SCIENCE - GRADE 10 | 1 UNIT

346 HONORS

Prerequisite: Biology with teacher recommendation preferred

Students explore complex biological concepts in this full year lab course. A broad range of activities offer the student opportunities to develop an understanding of the environment and engage in independent exploration of topics including weather and climate, biodiversity, ecosystem management, energy transfer and balance, population growth, biology, environmental impacts, geology, earth resources, and geography. This is a teacher-guided inquiry-based course helping students navigate important science concepts through hands-on investigations. Students study environmental problems currently facing our world. Students should possess an active interest in science in order to succeed in this accelerated course. In addition, this course provides the foundation for future enrollment in either Chemistry or Physics.

AP BIOLOGY - GRADE 10-12 | 1 UNIT

320 ADVANCED PLACEMENT

Prerequisite: Biology and teacher recommendation preferred

Advanced Placement (A.P.) Biology is an advanced intensive lab course taught at the freshman college level. It deals with the structure and function of living organisms with emphasis on the fundamental biological processes common to animals and plants. Laboratory sessions are directly related to the topics being discussed and offer "hands-on" experiences that serve to reinforce the lecture material. In addition to standard laboratory experiences, both protein and genetic databases are used. Students will also participate in an AMGEN Biotechnology Experience. Homework is an integral component of this course and students should expect an hour of homework per night. Registration for this AP course commits students to the end of the year AP exam.

CHEMISTRY - GRADE 10-12 | 1 UNIT

331 COLLEGE PREP

Prerequisite: Algebra 1

This chemistry lab course prepares students with a foundation in chemical theory and laboratory procedures. Topics presented in this course will focus on the properties of matter, atomic structure, periodic law, chemical bonding, chemical reactions and stoichiometry, gases and kinetic molecular theory, solution chemistry, acids and bases. Additionally, the laboratory component teaches standard lab techniques and procedures using laboratory equipment and scientific apparatus, with a focus on maintaining safety within the lab.

CHEMISTRY - GRADE 10-12 | 1 UNIT

330 HONORS

Prerequisite: Algebra 1 and Biology

In this lab course, students will study chemical theory through observations, calculations, and measurements regarding the properties of matter and the changes (reactions) that occur within matter. The principles and theories explaining these changes will be developed in a rational, systematic way with students making predictions about the outcomes of experimental investigations in the lab setting. Students will be required to design and conduct detailed experiments and to draw appropriate conclusions based upon their observations and data collected. Students should possess an active interest in science and a strong background in algebra in order to succeed in this accelerated course. This course provides the foundation for AP Chemistry.

ORGANIC CHEMISTRY - GRADE 11-12 | 0.5 OR 1 UNIT

333 HONORS 332 HONORS

Prerequisite: Chemistry AP, H, or CP and teacher recommendation preferred

Organic chemistry is the study of carbon-based compounds. This lab course is an introduction to college organic chemistry, which is on of the more common requirements for most engineering, medical and science majors in college. Organic chemistry focuses on the physical and chemical properties of carbon compounds, as well as their reactivity with other compounds. This course will focus on the structure, name, and chemical reactions that various organic compounds will undergo. This course will also discuss various chemical tests to differentiate between varying types of organic compounds, and the spectroscopy involved in identifying them. This course is offered as an introductory, semester, course during the first semester only. For those students interested in continuing their studies may opt for the more extensive full year course.

AP CHEMISTRY - GRADE 11-12 | 1 UNIT

329 ADVANCED PLACEMENT

Prerequisite: Chemistry, Algebra 2, and teacher recommendation preferredv

AP Chemistry is an advanced intensive lab course taught at the freshman college level. It will review content from honors chemistry, such as stoichiometry, gas laws, equilibrium constants, and acid-bases. It will build on the foundation of honors chemistry and deal with concepts such as atomic structure, thermodynamics, oxidation-reduction reactions, reaction order, and kinetics. This course requires students to perform standardized chemistry laboratory experiments. Registration for this AP course commits students to the end of the year AP Exam.

PHYSICS - GRADE 11-12 | 1 UNIT

341 COLLEGE PREP

Prerequisite: Algebra 2 and currently enrolled in Pre Calculus or Statistics

In this course, students will study the material world and the behavior of objects. Topics that are specifically covered include measurements, mechanics, sound, light, electricity and magnetism. Students of physics will acquire background information and develop skills with lab apparatus, including computers. This course will advance discovery capabilities and form a basis for further studies in engineering or other mathematics related fields. Therefore, physics is highly recommended for those whose career goals include these areas.

PHYSICS - GRADE 11-12 | 1 UNIT

340 HONORS

Prerequisite: Algebra 2 and currently enrolled in Pre-Calculus or Calculus

Physics is the study of the material world. It is a search for an explanation of the behavior of objects in the universe. This search covers a range of objects from the nucleus to the planets. In this course, students will learn about the ideas that are current explanations of how the natural world works. Specific topics include the study of mechanics, optics, waves, electricity, magnetism and nuclear reactions. Students entering this course are expected to have an excellent understanding of mathematics and should be interested in a career in either math or science.

AP PHYSICS - GRADE 11-12 | 1 UNIT

342 ADVSNCED PLACEMENT

Prerequisite: Chemistry or Physics and teacher recommendation preferred

Advanced Placement Physics 1 is an advanced intensive algebra-based course taught at the freshman college level. Students cultivate their understanding of physics through classroom study, in-class activity, and hands-on, inquiry-based laboratory work as they explore concepts like systems, fields, force interactions, change, conservation, and waves. Registration for this AP course commits students to the end of the year AP exam.

ANATOMY & PHYSIOLOGY - GRADE 11-12 | 1 UNIT

343 HONORS

Prerequisite: Biology with teacher recommendation

The objectives of the honors anatomy and physiology lab course are twofold: first, to furnish students with detailed information regarding themselves and their bodies which will aid them in the daily lives, making them more health conscious and physically responsible individuals; and second, to provide an excellent basis for further professional training. Major body systems are studied, stressing the relation between structure and function. Clinical terms are taught so that students can better understand health professionals. Studies include the systematic dissection of fetal pigs and the examination of tissues. Lab experiments dealing with visual perception in relation to nervous system integration, blood pressure, and homeostasis are performed. This course is a foundation for more advanced studies in medicine, nursing, psychology, nutrition, physical education and other health related occupations. Students are assigned in-depth, independent reading, which compliments and expands upon material learned in class. This course meets the requirements of a lab science.

MARINE BIOLOGY - GRADE 11-12 | 0.5 UNIT

370 UNLEVELED (Semester)

Prerequisite: Biology

This lab course is designed to look at the biological aspects of ocean life, focusing on the ecology and evolution of marine invertebrates. Topics covered include marine environments, marine invertebrate ecology and evolution, and interdependence in the ocean. Local marine sites will be monitored when feasible. Students will be required to perform several research projects involving marine microorganisms. These projects may include internet research, class presentations, data collecting, and data analysis. The students will be required to complete research, homework, projects, and exam.

MARINE BIOLOGY - GRADE 11-12 | 1 UNIT

373 HONORS

Prerequisite: Biology and Chemistry

This lab course is designed to give students an in-depth look at the biological, physical, and technological aspects of the marine world. Topics covered include the composition of ocean water, evolution and ecology of marine invertebrates, developmental biology, marine ecosystems, marine geology, energy in the ocean, and marine pollution and conservation. Students will be required to perform several research projects involving marine organisms. These projects may include internet research, dissections, class presentations, data collecting, and data analysis. The students will be required to complete research, homework, projects, and exams. Local marine sites will be monitored when feasible.