

ROXBURY | HIGH PREP | SCHOOL

COURSE GUIDE 2015 – 2016

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LETTER FROM THE LEADERS

Dear Students and Families –

We are honored and delighted to be opening the Roxbury Preparatory High School's (RPHS) doors for the inaugural RPHS Class of 2019, and the college class of 2023. We are so privileged to be working with each of you to build an incredible high school that ensures all of us will enter, succeed in, and graduate from college. We know that the path from 9th grade to college will be filled with hope, challenges, wonder, and opportunities to demonstrate our resilience. We know that it will require us to build community with ourselves and know ourselves deeply. The path through high school and through college will also require us to lead, be action oriented, and embrace all these equally. We know that together we will absolutely embody the traits required to be authentic agents of change. We enthusiastically and sincerely accept this journey.

We cannot and could not build our high school without each of you. Without your commitment and faith in our mission, without your creativity and work ethic, and without your wisdom and courage – our school would not be possible. And for this we are also infinitely grateful. We will build with each other over the next 8-12 years and are looking forward to each moment. As you review this handbook with its calendar, contact information, Code of Conduct, technology contracts, and reminders, remember that the most important thing is what you already know – that the most important thing is that we show up, every day all day, ready to say yes to school, to college, and most importantly, to each other.

In the days and years ahead, as we launch RPHS, please do not hesitate to reach out to either of us with questions, concerns, your dreams for our collective learning place, or just to say hello. We cannot wait for this journey to start!

With deep appreciation and gratitude,



Shradha M. Patel
Co-Founder, Instructional Leader



Juan G. Fernandez
Co-Founder, Director of Operations

DIPLOMA REQUIREMENTS

In order to graduate from Roxbury Prep High School, students must complete the requirements in the following content areas. This ensures that students meet the Massachusetts Department of Elementary and Secondary Education requirements to receive a high school diploma.

Content Area	Graduation Requirements	
ELA	4 years	
History Courses	3 years total	
<i>US History I</i>	✓ – 8 th grade	
<i>US History II</i>	✓	
<i>Other</i>	2 years	
Math Courses	4 years total	
	Option A	Option B
<i>Algebra</i>	✓	✓ – 8 th grade
<i>Geometry</i>	✓	✓
<i>Advanced Algebra</i>	✓	✓
<i>Pre-Calculus & Trig</i>	✓	✓
<i>Calculus Statistics</i>	---	✓
Lab Sciences	3 years total	
<i>Biology</i>	✓	
<i>Chemistry</i>	✓	
<i>Physics</i>	✓	
World Languages	2 years	
Computer Science	2 years	
Arts	2 semesters	
Physical Education	3 semesters	
Health	1 semester	

COURSE LISTING

The Arts

Music (I through IV)

The Music curriculum is designed to introduce students to the basics of musical instruments and concert band in year one, and increase difficulty and proficiency over four years. Students will learn how to read music, design arrangements, and play a brass instrument, a woodwind instrument, or percussion. The Music curriculum at Roxbury Prep High School (RPHS) will also cover music theory, allowing students to become familiar with composing and writing music. Each music section will hold several public concerts throughout the school-year.

Students must take each course in succession starting at Music I and progressing to Music IV. No previous experience is required for Music I.

Performing Arts (I through IV)

Performing arts students will be exposed to the basics of singing, dancing, acting, playwriting, and stage design in year one. Over the four year curriculum, students will become proficient performers and will learn to work together to put on a bi-annual performances and plays. The Performing Arts classes will hold several public exhibitions throughout the school-year.

Students must take each course in succession starting at Performing Arts I and progressing to Performing Arts IV. The Performing Arts I course is designed for beginning actors and singers; no previous experience is required for this course.

Media Arts (I through III)

Designed as survey courses for digital media arts, students will further the media arts and digital design techniques learned in the Introduction to Computer Science and Media Arts course. Students will be exposed to new software and programs that allow for the creation of content along with photo editing, 3D modeling, and audio editing. These courses are designed to encourage self-expression and hands on practice. Each unit will culminate with a project and a public exhibition of the student work.

Introduction to Computer Science and Media Arts is required to take Media Arts I.

English

Ninth Grade English

NINTH GRADE

Students will focus on the use of language and will build their reading and writing skills, developing the skills to analyze text for central themes and write strong persuasive essays. Over the course of the year, students will read a variety of literature types including novels, dramas, poetry, and literary nonfiction, and analyze and compare the characteristics, structure and style of each type of writing. In alignment with the Common Core, students will also learn strategies and techniques necessary to read technical papers including primary scientific articles, including proper citations. Ninth grade English focuses on mastery of the English language and is designed to give students the tools to succeed in College Prep English Language and AP English Language during the eleventh grade.

Tenth Grade English

TENTH GRADE

In tenth grade, students will focus on comparing themes, styles, and purpose of different pieces of literature. Students will read a variety of literature types with a focus on novels, dramas, poetry, and literary nonfiction. In this course, students will be expected to draw on content from history and social sciences to analyze the cultural experience and point of view of each work of literature. In alignment with the Common Core, students will continue to learn strategies and techniques necessary to read technical papers including primary scientific articles, including proper citations. Tenth grade English focuses on building the critical thinking analytical skills required to read complex pieces of literature, preparing students to succeed in College Prep English Literature and AP English Literature during the twelfth grade.

College Prep English Language

ELEVENTH GRADE

Over the course of the year students will focus on developing their voices in writing while learning the style and conventions of several writing modes. Through a selection of readings and writing samples, students will develop mastery in four key content areas: rhetorical knowledge; critical thinking, reading, and writing; processes; and knowledge of conventions.

AP English Language

ELEVENTH GRADE

Designed by the College Board the AP English Language course focuses on developing student voice in writing while learning the style and conventions of several writing modes. Through a selection of readings and writing samples, students will develop mastery in four key content areas: rhetorical knowledge; critical thinking, reading, and writing; processes; and knowledge of conventions. The AP English Language course is also intended to provide students with the critical thinking skills to analyze all types of writing for content and style. This course culminates in the Advanced Placement exam in May.

College Prep English Literature

TWELFTH GRADE

This course is the culminating course in the college prep series at RPHS. Throughout this course, students will work to build master of style analysis, recognition of literary terms, diction, knowledge of narrative voice and critical reading and analytical writing. Students will do this by reading and critically analyzing various poems, short stories, and novels from the Western canon.

AP English Literature

TWELFTH GRADE

Designed by the College Board, AP English Literature focuses on authors and poets that are representative of the Western canon. Students will continue to build on the four content areas from 11th grade English as they build mastery of style analysis, recognition of literary terms, diction, knowledge of narrative voice, and critical reading and analytical writing. This course culminates in the Advanced Placement exam in May.

History and Social Sciences

United States History

NINTH GRADE

The United States History course at RPHS allows students to explore the significance of political and cultural events that occurred between the Industrial Revolution in America (1870-1920) and Contemporary America (1980-2001). The study of US History will be framed via the influence of geography, religion, politics, culture, and technology. A strong emphasis will be placed on personal freedoms and the growth of the United States as a world power.

AP United States History

NINTH GRADE

Designed by the College Board, the AP US History course is open-ended and designed to provide students with the tools to think critically about written material in a historical context. The course covers material from both US History I and US History II (Massachusetts standards) in a single year, spanning from pre-Colombian societies to the World Wars and post-Cold War United States. Students should expect to analyze each of the 28 time periods using the same lens in order to determine similarities and differences of each time period. Students will analyze primary and secondary material from each time period. The course culminates in the Advanced Placement exam in May.

World History

TENTH GRADE

Students will explore the history of the world from the rise of nation states in the 16th century through World War II and ending in the contemporary world. The course will focus on the positive and negative consequences of globalization. Throughout the course, students will discuss different political ideologies, religious traditions and forms of government. Students will also discuss the rise and fall of different societies through the lens of the technologies that enabled the world to progress from agrarian societies to developed and industrialized nations.

AP World History

TENTH GRADE

Designed by the College Board, the AP World History curriculum was designed to cover the history of the world from the Neolithic Revolution to the present. Students will continue to use the critical thinking tools taught in AP US History to analyze materials in a historical context. Emphasis is placed on the common themes that are seen throughout each period of world history. The course will push students to learn and contextualize facts based on their historical knowledge and to craft historical arguments based on evidence. The course culminates in the Advanced Placement exam in May.

College Prep Comparative Government and Politics

ELEVENTH GRADE

In this course, students will analyze the political themes and concepts of governments around the globe. The major focus of this course will be on providing students the tools to analyze political themes and concepts on national and international scales. Students will use the governments and politics of modern day China, Great Britain, Iran, Mexico, Nigeria, and Russia to learn the tools and vocabulary used in government and politics.

AP Comparative Government and Politics

ELEVENTH GRADE

Designed by the College Board, the AP Comparative Government and Politics course will provide a historical context to governments around the globe, with a focus on the modern day politics and foreign affairs of major governments. The course will provide students with the tools to analyze the political themes and concepts seen on national and international scales. Upon completing the course, students will have in-depth knowledge of the governments and politics of China, Great Britain, Iran, Mexico, Nigeria, and Russia. The course culminates in the Advanced Placement exam in May.

College Prep Economics

TWELFTH GRADE

The College Prep Economics course at RPHS is a year-long course that is broken down into macroeconomics and microeconomics. Students will study microeconomics in the first semester, covering the basics of product markets, factor markets, and the role of the government in the economy. In the second semester, students will study macroeconomics with a focus on economic systems and performance, stabilization policies, and economic growth.

AP Economics

TWELFTH GRADE

Designed by the College Board, the AP Economics course at RPHS combines both economics courses offered by the College Board – macroeconomics and microeconomics. Students will study microeconomics in the first semester, covering the basics of product markets, factor markets, and the role of the government in the economy. In the second semester, students will study macroeconomics with a focus on economic systems and performance, stabilization policies, and economic growth. The course culminates in both the micro- and macro-economics Advanced Placement exams in May.

Mathematics

Algebra I

NINTH GRADE

The Algebra I course at RPHS is designed to introduce students to the basics of algebra and mathematical abstraction. Students will learn to use and solve powers and exponents, quadratic equations, polynomials, linear equalities, and other functions. Students will also be introduced to graphic solving and the basic principles of geometry.

Geometry

NINTH OR TENTH GRADE

The Geometry course at Roxbury Preparatory High School will explore the geometric relationships of Euclidean geometry. Students will learn to inquire about analytical geometry, algebraic geometry, and Cartesian coordinates. All students are required to successfully complete a course in Algebra I prior to entering Geometry.

Algebra II

TENTH OR ELEVENTH GRADE

The Algebra II course at RPHS will draw on and combine the foundational knowledge students gained in Algebra I and Geometry – allowing for the numerical and graphical analysis of complex functions. Over the year, students will gain the knowledge and expertise to synthesize complex numbers and functions including logarithms, exponents, and probability. At the end of the year, students will preview the trigonometry and pre-calculus curriculum to prepare for the following year.

Trigonometry and Pre-Calculus

ELVENTH OR TWELFTH GRADE

The Trigonometry and Pre-Calculus course at RPHS is designed to prepare students for a college-level introductory calculus course. Students will be expected to further their knowledge of algebra and geometry while they learn the basic functions of calculus and trigonometry. Over the year, students will gain the knowledge and expertise to work with complex numbers and functions including logarithms, trigonometric functions, polynomial functions, and vectors.

AP Statistics

ELEVENTH AND TWELFTH GRADE

Designed by the College Board, the AP Statistics course focuses on providing students the tools and concepts to work with data. Students will be expected to collect, analyze, and draw conclusions from data. The four themes covered in this course are: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. RPHS offers this course not only to allow students to better understand their academic data, but to allow students to take in data from the media and form sound conclusions based on the information. This course culminates in the Advanced Placement exam in May.

AP Calculus AB

TWELFTH GRADE

Students that have successfully completed the Trigonometry and Pre-Calculus course by their junior year will be offered the opportunity to take the AP Calculus AB or BC. Designed by the College Board, AP Calculus AB has the same rigor as BC but only covers a semester of college-level material. Students in AP Calculus AB can expect to cover derivative applications and techniques, definite integrals, and the fundamental theorem of calculus. The course takes the time to fully understand each of these principles. The course culminates in the Advanced Placement exam in May.

AP Calculus BC

TWELFTH GRADE

Students that have successfully completed the Trigonometry and Pre-Calculus course by their junior year will be offered the opportunity to take the AP Calculus AB or BC. AP Calculus BC covers a full year of college-level material. Students in AP Calculus BC can expect to cover derivative applications and techniques, definite integrals, the fundamental theorem of calculus, differential calculus, integral calculus, and series. Students will re-examine basic functions to apply new principles learned throughout the year. The course culminates in the Advanced Placement exam in May.

Physical Education

Ninth Grade Physical Education

NINTH GRADE

In this course, students will learn the basic principles of fitness, wellness, and nutrition. The course will be used as a survey course to introduce students to the rules and techniques of multiple sports including basketball, football, lacrosse, and track and field. Students will also practice elements of individual and team activities, rhythm and dance, and exercise kinesiology, all while learning how to work in a group setting.

Tenth Grade Physical Education and Health

TENTH GRADE

In this course, students will learn the basic principles of fitness, wellness, and nutrition. The course will be used as a survey course to introduce students to the rules and techniques of multiple sports including basketball, football, lacrosse, and track and field. Students will also practice elements of individual and team activities, rhythm and dance, and exercise kinesiology, all while learning how to work in a group setting. Students will also participate in one semester of health to learn the tools necessary to live a healthy lifestyle with a healthy mind and body.

Sciences

Biology

NINTH GRADE

Students in the Biology course at RPHS will learn about human evolution, biological diversity, and molecular biology. Students will also dive into the structures and diversity of life, spanning from the molecular and cellular levels to the ecological and world-wide levels. Toward the end of the year, students will begin to learn basic chemistry principles in preparation for tenth grade.

AP Biology

ALL YEARS

Designed by the College Board, the goal of the AP Biology course is to provide interested students with the ability to explore the basics of biological sciences in a more in-depth manner. The course will follow the Biology curriculum designed by the College Board and represents the equivalent of one semester of a college-level biological sciences course. Students in AP Biology will learn the intricacies of human evolution, biological diversity, and molecular biology. The course culminates in the Advanced Placement exam in May.

Chemistry

TENTH GRADE

The chemistry curriculum at RPHS is designed to allow students to learn the principles of chemistry while developing problem solving skills and further the understanding of scientific inquiry. Students will learn about the elements, atomic structures, and will learn the basics of physics including the laws of thermodynamics. A strong emphasis is placed on scientific pioneers that developed the field of chemistry and the research that shaped modern chemistry.

AP Chemistry

ALL YEARS

Designed by the College Board, the AP Chemistry course is designed by the College Board and represents one semester of college-level introductory chemistry. Students will learn the chemical elements, properties of matter, chemical structures, the laws of thermodynamics, and other principles of chemistry. The course will also discuss the intersection of chemistry with biology and chemistry with physics. The AP Chemistry curriculum includes 16 labs that allow students to demonstrate their knowledge and learn laboratory safety and practices. This course culminates in the Advanced Placement exam in May.

Physics

ELEVENTH GRADE

Physics is the study of laws that govern the [] world. This course will focus on kinematics, Newtonian motion, gravitation, and energy. The course will rely heavily on student experience and lab-work to provide students with the experience necessary to better understand physics. Physics is offered in the tenth grade to allow all students to develop strong math skills, allowing students to use the basics of algebra II and calculus in their scientific inquiry.

AP Physics B

ALL YEARS

Designed by the College Board, the AP Physics B curriculum focuses on basic physical principles, problem solving skills, and lab practices. The course covers five content areas throughout the year, the content areas include Newtonian mechanics; fluid mechanics and thermal physics; electricity and magnetism; waves and optics; and atomic and nuclear physics. In addition to learning the qualitative and quantitative skills required for physics, students will complete multiple labs to put their knowledge into practice. The College Board designed the course to represent one semester of a college-level introductory physics course. This course culminates in the Advanced Placement exam in May.

Technology

Introduction to Computer Science and Media Arts

NINTH GRADE

The Introduction to Computer Science and Media Arts course is designed to allow students to create digital media and content and to better understand the importance of technology in the 21st century. Students will learn to create, design, and edit websites, including their RPHS digital portfolios. The course will also teach students how to use industry standard software for graphics, audio, and video. Upon completion of the course, students will have the technology skills required to create meaningful content and will know what it means to be a responsible digital citizen.

Computer Science II

TENTH GRADE

Computer programming is an essential skill that will allow students to remain competitive both in college and the work-place. This course was designed to introduce students to the basics of programming in Java, the coding language taught in AP Computer Science. Students will be taught how to solve basic problems with computer modeling and will incorporate math and graphic design into different projects completed during the course.

AP Computer Science Principles

ELEVENTH GRADE

Designed by the College Board, AP Computer Science Principles is a new course released by the College Board. The course is designed to be the equivalent of a college-level introductory computer science course. This course covers the basic principles of computer science including creating a program, abstraction, data processing, algorithms, and other related topics. Students in this course can expect to gain real world practice with computer science and to learn how computer science impacts their daily lives. Students will also further their knowledge of and comfort with common programming languages. The course culminates in the Advanced Placement exam in May.

AP Computer Science A

TWELFTH GRADE

The RPHS technology curriculum culminates with the AP Computer Science A course. Designed by the College Board, the AP Computer Science A curriculum furthers the student knowledge of programming and data structures, while gaining exposure to using algorithms and working collaboratively to build programs. The course will focus on coding in Java, the language used on the Advanced Placement exam; however, students are encouraged to use other programming languages as they complete the course. This course culminates in the Advanced Placement exam in May.

World Languages

Spanish I

ALL GRADES

Designed as an introductory course for non-Spanish speakers, Spanish I provides students with the foundations of the Spanish language. Students will learn the basic grammar constructs, vocabulary, and cultural norms of Spanish society. The course will focus on present tense conjugations, pronunciation, and vocabulary. Students will be exposed to multimedia in Spanish and conversational practice with their peers.

Spanish II

ALL GRADES

Students in Spanish II will continue the development of Spanish writing and speaking skills. The course covers irregular verbs in the present tense, reflexive verbs, and the basics of preterite and imperfect tenses. Throughout the course, students will gain mastery of their skills through presentations, group practice, and real-world media examples. Students will continue to learn the culture and customs of Spanish speaking countries and will be encouraged to take part in relevant community activities.

Spanish III

ALL GRADES

The Spanish III course is designed to provide students with the tools necessary to express themselves in a deeper manner and to discuss intricate topics such as politics, literature, and modern day events. The course encourages students to develop their own voice and identity in the Spanish language through a series of creative writing tasks and projects. Students will continue to develop a broad vocabulary and understanding of verb tenses such as the subjunctive and past perfect tenses. Upon completion of this course, students will be prepared to enroll in the AP Spanish Language and Culture course.

AP Spanish Language and Culture

TWELFTH GRADE

The culminating course in Spanish at RPHS is designed to provide students with the equivalent to one semester of college-level introductory Spanish. Students will practice the skills they learned in Spanish one through three and develop a deeper knowledge of the Spanish language. The course features relevant real-world content to nurture the appreciation students have for Spanish, while teaching new tenses and language constructs to students. Students will be expected to demonstrate their knowledge and understanding of Spanish via several modalities including spoken, written, and media communications. This course culminates in the Advanced Placement exam in May.

REVIEW OF COURSES

<i>Course</i>	<i>Grades Offered</i>	<i>Levels Offered</i>	<i>Page Number</i>
The Arts			
Music	9-12	I-IV	4
Performing Arts	9-12	I-IV	4
Media Arts	9-12	I-III	4
English			
Ninth Grade English	9		4
Tenth Grade English	10		5
College Prep English Language	11		5
AP English Language	11		5
College Prep English Literature	12		5
AP English Literature	12		5
History and Social Science			
US History	9		5
AP US History	9		6
World History	10		6
AP World History	10		6
College Prep Comparative Government	11		6
AP Comparative Government	11		6
College Prep Economics	12		6
AP Economics	12		7
Mathematics			
Algebra I	9		7
Geometry	9-10		7
Algebra II	10-11		7
Trigonometry/Pre-Calculus	11-12		7
AP Statistics	11-12		7
AP Calculus AB	12		8
AP Calculus BC	12		8
Physical Education			
Ninth Grade PE	9		8
Tenth Grade PE and Health	10		8
Sciences			
Biology	9		8
AP Biology	9		9
Chemistry	10		9
AP Chemistry	10		9
Physics	11		9
AP Physics B	11		9
Technology			
Introduction to Computer Science and Media Arts	9		10
Computer Science II	10		10
AP Computer Science Principles	11		10
AP Computer Science A	12		10
World Languages			
Spanish	9-12	I,II,III,AP	11