

ROXBURY HIGH SCHOOL

One Bryant Drive
Succasunna, NJ 07876

PROGRAM OF STUDIES 2010-2011

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Assistant Principal.....Dr. Linda Bowles
Assistant Principal - Athletics.....Ms. Alexis S. Korsak
Assistant Principal.....Mr. Eric Renfors
Assistant Principal - Guidance.....Ms. Kerstin A. Stewart
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Family and Consumer Sciences/Industrial Arts & Technology Lead Teacher.....Mrs. Pam Mandracchia
Performing Arts Lead Teacher.....Ms. Lori Lynch
Physical Education/Health Lead Teacher.....Mr. Kevin Poggi
Science Lead Teacher.....Mr. William O'Brien
Social Studies Lead Teacher.....Mrs. Patricia Sikorski
Visual Arts Lead Teacher.....Mrs. Joann Hughes
World Language Lead Teacher.....Ms. Susan Corbo

Counseling Staff

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Dear Student:

The Program of Studies describes the courses offered at Roxbury High School. Please read it carefully before selecting your courses for the next school year. It is important to familiarize yourself with the requirements for a Roxbury High School diploma, the requirements for most colleges and post-secondary schools and careers, and the procedures for scheduling.

Each year you will update your four-year plan with the help of your counselor, parents, and teachers. Keep your future options open by choosing courses that meet the admission criteria of a wide range of colleges, business and technical institutes, entry-level jobs, and the military services. We encourage you to sample new subjects and interests so that you develop a well-rounded program. Before you plan your four-year program, think about these important questions:

1. What are my primary interests in and out of school?
2. What careers am I considering?
3. What kind of education do I want to pursue after high school?
4. What are my strengths and weaknesses as indicated by my grades and test scores?
5. What courses will challenge my abilities?
6. What electives will round out my program, develop my talents and help me explore new fields?

As you work with your counselor and your parents, strive to develop a challenging program that will enable you to achieve your educational and career goals.

Your Counselors and Teachers

SCHOOL COUNSELING AND GUIDANCE PROGRAM

The school counseling and guidance program is designed to help you build a strong educational foundation in high school, develop your talents and abilities, and plan for the future. You meet regularly with your counselor who works with you to build a positive relationship based on trust, caring, confidentiality, and mutual respect. With the assistance of your counselor, you choose courses each year, assess your strengths and weaknesses, make key educational and career decisions and solve problems that you encounter in high school. Your counselor will schedule conferences with you each marking period; however, you and your parents are encouraged to make an appointment whenever needed.

You and your counselor will develop a four-year plan, which maps out your courses and future direction. The Counseling and Guidance Department is located on the first floor in the front of the building. You can sign up for an appointment, visit the Career and Educational Resource Center, or use computer software. Appointments may be made before and after school or during your study or lunch period. A pass must be obtained and presented to your study hall teacher before reporting for a conference.

4-2C Guidance Plan (4 years for Career or College)

Developing your four-year plan is a challenging process. The philosophy of the 4-2C guidance plan is based on four developmental principles:

1. Every student develops a four-year plan.
2. Every student sets a tentative educational goal.
3. Every student sets a tentative career goal.
4. Every student has the opportunity to use his/her unique talents, abilities, interests and multiple intelligences.

Each year counselors offer developmental guidance activities as part of the 4-2C guidance program to help you develop your four-year plan for career or college/postsecondary education. Activities will be offered to help you select your courses, explore career interests, prepare for a job, and register for the PSAT, SAT, SAT Subject Tests, and/or ACT. The guidance and counseling program is built around four components: Counseling, Consultation, Curriculum—the 4-2C Plan, and School Enhancement. Each guidance component helps you achieve the best education you can and ultimately follow a successful and rewarding career path.

Course Selection Process

Choosing your courses is a vital step in developing your four-year plan. Your schedule should reflect your interests, abilities, educational and career goals, and academic achievement. In February, counselors begin the process of scheduling students for the following year. Academic courses have prerequisites and require recommendations from department teachers.

The master schedule of courses is developed after analyzing the best placement for a course for the greatest number of students. Class enrollment is finalized after considering many factors including the availability of teachers and rooms, student interest, number of computers, and laboratory stations. Although the master schedule team makes every effort to fill course requests, you may be required to choose between courses when a conflict cannot be resolved.

Schedule Changes

When you indicate your course selections on the Course Selection Sheet, your choices reflect firm decisions. Final course selection is the result of serious planning with your parents, teachers, and counselor. Requests for teacher changes within a given subject area will not be approved unless the student has had a previous course failure with a teacher. Your final schedule may be different in September due to course changes and balancing sections over the summer.

Planning for College

The most important criteria for college admission are the strength of your academic program and your grades in your academic courses (English, mathematics, science, history, and language). You should select the highest level in college preparatory courses that is appropriate for your ability and skills. College requirements vary; therefore, it is advisable to prepare for admission to a wide range of colleges. Take a broad and balanced college preparatory program and consult college catalogs for specific requirements.

To prepare for selective colleges you should:

1. Complete a minimum of 16 college academic units. Applicants to highly selective colleges often complete 20 or more academic units. A unit represents a year course in an academic college preparatory subject.
2. Read widely in a variety of subjects to build your comprehension, general knowledge, reading speed, and vocabulary.
3. Develop strong study skills and habits in all subject areas.
4. Participate actively in school and community activities. Become involved in volunteer service projects.
5. Prepare for college entrance examinations by taking the most challenging academic courses possible.

Planning for School-To-Work

The most important criteria for gaining employment after graduation are a successful high school academic record, good recommendations, motivation, workplace skills (communication, decision-making, teamwork, adaptability, and reliability), and strong experience/courses in your career area.

To prepare for work after graduation you should:

1. Complete a strong high school program with 15 or more academic subjects
2. Take electives in business, industrial arts, technology and family and consumer sciences related to your area of interest.
3. Seek out work experiences through Cooperative Education, MCST, after school jobs, volunteering and service learning.
4. Develop a strong employment record for your resume and for recommendations from employers.
5. Prepare for post secondary education in your area of interest by taking prerequisites for further study.

SAT and ACT Preparation

Roxbury High School provides NAVIANCE SUCCEED to all students with the opportunity to prepare for the SATs and ACTs by using the online programs: SAT Method Test Prep and ACT Method Test Prep. With both SAT Method and ACT Method, students can listen to a professional tutor explain the concepts and questions that they are struggling with, without reading through pages of intimidating text. Students get immediate feedback and a complete explanation for every practice question. Each student's performance is tracked and strengths and weaknesses are clearly indicated. Counselors and parents can see where students need to focus their study time.

Since SAT Method and ACT Method are available on-line, students have access from any Web-enabled computer, making it easy for them to study when it's most convenient.

With SAT Method and/or ACT Method, students can:

- *Hear audio explanations of test questions
- *Access strategy guides for each test
- *Complete full-length practice tests
- *Receive hundreds of practice questions
- *Take practice quizzes to boost their knowledge
- *Access their courses on an unlimited, 24/7 basis, from any web-enabled computer

With SAT Method and Act Method every student has the opportunity to increase their standardized test scores.

Grade 9 Placement Criteria

Mathematics: A rubric that brings all of the following criteria into consideration will be used for placement in grade 9 mathematics.

- ASK 6 and 7 in Mathematics
- End of year assessment (7th and 8th)
- Algebra readiness test (end 7th and 8th)
- Skill based data rubric—grade 8
- Benchmark tests (2) - grade 8 – MP 1 and 2
- Pupil grades – grade 8 - semester 1
- Upon receipt - ASK 8 Mathematics

Science: A rubric that brings all of the following criteria into consideration will be used for placement in grade 9 science.

- Skill based data rubric – grade 8
- Benchmark tests (2) - grade 8 – MP 1 and 2
- Pupil grades – grade 8 - semester 1
- Upon receipt – ASK 8 Science

English: A rubric that brings all of the following criteria into consideration will be used for placement in grade 9 English.

- ASK 6 and ASK 7 in Language Arts
- Benchmark tests (2) - grade 8 – MP 1 and 2
- Writing Portfolio
- Pupil grades – grade 8 - semester 1
- Upon receipt – ASK 8 Language Arts

Social Studies: A rubric that brings all of the following criteria into consideration will be used for placement in grade 9 social studies.

- ASK 7 in Language Arts
- Skills assessment – grade 8
- Benchmark tests (2) - grade 8 – MP 1 and 2
- Pupil grades – grade 8 – semester 1
- Upon receipt – ASK 8 Language Arts Literacy

For purposes of placement into grade 9 core courses, objective criteria (tests, benchmark tests, etc.), are considered equally with subjective criteria (student grades, teacher recommendations). All data will be recorded in a placement criteria data base that will be used to determine the appropriate placement of students into 9th grade courses. When the ASK 8 scores become available, they will be considered as part of the objective data employed to determine pupil placement. This may change a student's recommended course of study.

The State of New Jersey requires local districts to implement remedial plan for students at risk of not passing the HSPA. The district's remediation plan will be implemented for pupils who score below the proficiency level on state assessments in Language Arts and/or Mathematics. Students will be assigned to class levels commensurate with their test scores and to an HSPA prep class for one or two semesters, depending on the level of remediation needed.

GRADUATION REQUIREMENTS

A total of **140 credits** must be earned for high school graduation. State and local policy dictate that some of these credits are earned in prescribed courses. It is possible to fail a course and catch up the following year or years by taking a full schedule of courses and/or summer school.

In order to graduate, you must successfully pass a New Jersey High School Proficiency Assessment (HSPA) in Language Arts and Mathematics. If you fail one or more of these tests you must enroll in a remedial program until you demonstrate mastery of the failed proficiency(s).

Prescribed course requirements are:

4 years of English	20 credits
1 year of World History	5 credits
2 years of United States History	10 credits
3 years of Mathematics	15 credits
3 years of Science	15-18 credits
1 year of Visual or Performing Arts	5 credits
1 year of Practical Arts	5 credits
1 year of World Language	5 credits
4 years of Physical Education/Health/Driver Ed. Theory	16-20 credits
.5 years Economics (Beginning with class of 2014)	<u>2.5 credits</u>
(Financial Literacy for the 21st Century)	98.5-105.5 credits

Cross-content workplace readiness will be satisfied through infusion into existing courses. The remaining course credits should be chosen to give you a well-rounded program that will help you to become a better person and citizen, and prepare you for further education or immediate employment.

You may wish to pursue a project in depth and may choose an Independent Study or a Senior Option program in addition to your regular schedule. Information about these opportunities is available in the Guidance Office.

Course Load:

Students must take a minimum of seven subjects (35 credits) a year, but are encouraged to take eight subjects (40 credits) each year.

Honors and Advanced Placement Courses:

Honors and/or Advanced Placement courses are designed to provide you with an academic challenge beyond that provided in other college preparatory courses and the opportunity to complete college-level courses in high school. Assignments and activities are designed to move students to think and write more critically at a higher level and at a more rigorous pace. To be successful you should:

1. Be selected on the basis of academic record, teacher recommendations, standardized test results, application, or other placement criteria.
2. Have a high level of interest in the subject and be motivated to work hard.
3. Demonstrate strong reading, analytical, critical thinking, and writing skills.
4. Demonstrate academic ability and achievement strong enough to be successful in the subject.
5. Demonstrate excellent attendance, self-discipline, independent work habits, and maturity to succeed in the course.

SEQUENCE OF COURSES

Grade 9 Courses:

1. English I
 2. World History
 3. Geophysical Science
 4. Algebra I
 5. Physical Education/Health 9
- Recommended ~ Visual and/or Performing Art
Recommended ~ Practical Art
Recommended ~ World Language
Recommended ~ Financial Literacy

Elective Courses: Complete your schedule from any elective courses open to Grade 9 as listed on the Student Course Selection Sheet. Remember, you must take a minimum of seven (7) courses and must check the prerequisites, if any, as listed in this curriculum handbook.

Grade 10 Courses:

1. English II
 2. US History I
 3. Biology
 4. Geometry
 5. Physical Education/ Driver Ed. Theory
- Recommended ~ Visual and/or Performing Art if not taken previously
Recommended ~ Practical Art if not taken previously
Recommended ~ World Language if not taken previously
Recommended ~ Financial Literacy

Elective Courses: Complete your schedule from any elective courses open to Grade 10 as listed on the Student Course Selection Sheet. Remember, you must take a minimum of seven (7) courses and must check the prerequisites, if any, as listed in this curriculum handbook.

Grade 11 Courses:

1. English III
 2. US History II
 3. Chemistry
 4. Algebra II
 5. Physical Education/Health 11
- Recommended ~ Visual and/or Performing Art if not taken previously
Recommended ~ Practical Art if not taken previously
Recommended ~ World Language if not taken previously
Recommended ~ Financial Literacy

Elective Courses: Complete your schedule from any elective courses open to Grade 11 as listed on the Student Course Selection Sheet. Remember, you must take a minimum of seven (7) courses and must check the prerequisites, if any, as listed in this curriculum handbook.

Grade 12 Courses:

1. English IV
2. Physical Education/Health 12
3. Visual and/or Performing Art if not taken previously
4. Practical Art if not taken previously
5. World Language if not taken previously

Elective Courses: Complete your schedule from any elective courses open to Grade 12 as listed on the Student Course Selection Sheet. Remember, you must take a minimum of seven (7) courses and must check the prerequisites, if any, as listed in this curriculum handbook.

ADMISSION TO COLLEGE

Most colleges stress five academic areas for admission. These are: English, Social Studies, Mathematics, Science, and World Language. Students must check college bulletins for specific entrance requirements. However, there are certain generalizations that can be made concerning each of the major areas.

ENGLISH – The entrance requirement for most colleges is four years of college preparatory English. A student interested in the major area of English, speech, journalism, drama, etc., should exhibit an interest in and an aptitude for English and attempt to work creative writing and/or related courses into his/her program.

SOCIAL STUDIES – All graduates from Roxbury High School must take at least three years of history. This will be enough to meet most college requirements. A student interested in political science, government, sociology, law or related fields should attempt additional courses in the social studies area.

MATHEMATICS – Algebra I, Geometry, and Algebra II are the usual minimum units required by college for admission. For majors in engineering, mathematics, science and such related areas, a student should take at least three to four years of college preparatory mathematics in high school. Additional courses in mathematics are available for students interested in math related occupations.

SCIENCE – The usual minimum required sciences for college admissions are three. For students entering the field of science, mathematics, engineering, pre-medical, or pre-dental, four years of science are strongly recommended.

WORLD LANGUAGE – In general, most liberal arts colleges require at least two years in the same foreign language for admission, with many requiring three years. Students who plan to major in foreign language should take four years in one language and two in another.

In addition to the courses you take, colleges emphasize the following factors in making a decision on a student's application:

1. Quality of student's academic program.
2. Grades and rank in class.
3. Scores made on examinations of College Entrance Examinations Board and/or American College Testing Program.
4. Recommendations of your guidance counselor and teachers.
5. Extra Curricular Activities (clubs, sports, work, volunteer, etc.)

BUSINESS AND MARKETING EDUCATION

In today's global environment, business courses are the foundation that shape and impact all facets of the 21st century. A dynamic array of Business and Marketing electives are offered to prepare students for postsecondary academics and the global workforce. Courses are available for all levels of our student population. All Business and Marketing classes satisfy the Practical Arts requirement.

ACCOUNTING I **Grades 10, 11, 12** **5 Credits**

This course introduces the student to the world of financial accounting. Students will prepare, analyze and interpret financial business records. The complete accounting cycle is taught through the preparation of journals, ledgers, worksheets, and financial statements. Authentic activities are provided that allow students to create their own virtual businesses using worksheets and office development software. Accounting I serves as the prerequisite to Accounting II.

ACCOUNTING I HONORS **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Current enrollment in an Honors level course in any discipline; maintaining an average of 85 or above in the class.

This course is designed to provide the honors-level student with an understanding of accounting concepts, principles, and procedures. The course covers accounting theory and applications and includes computer accounting procedures. Students will develop an understanding of the economic activities affecting business and learn to analyze and interpret financial data. This course includes topics such as the accounting cycle, cash transactions, inventory control, depreciable assets, accounting for small and large businesses, and uncollectible accounts. It is strongly recommended for the highly-accelerated student who plans further study in the fields of business administration, finance, pre-law, economics, or accounting. A college-level text and course of study is used in Accounting I Honors.

ACCOUNTING II **Grades 11, 12** **5 Credits**

PREREQUISITE: Successful completion of Accounting I

This course is designed to continue the accounting concepts and procedures developed in Accounting I. Topics covered include corporate, management, cost, and departmentalized accounting, analysis and interpretation of financial statements, the treatment of tangible and intangible assets, calculation of payroll, an in-depth study of corporate accounting and an overview of cost systems. Computerized accounting procedures are stressed.

ACCOUNTING II HONORS **Grades 11, 12** **5 Credits**

PREREQUISITE: Successful completion of Accounting I Honors and teacher recommendation.

This course is designed to expand on the accounting concepts developed in Accounting I Honors. Topics covered include departmentalized accounting, the treatment of tangible and intangible assets, calculation of payroll, an in-depth study of corporate accounting and an overview of cost systems. Computer accounting projects and procedures are stressed, as well as detailed analysis and interpretation of financial statements.

COMPUTER APPLICATIONS & KEYBOARDING **Grades 9, 10, 11, 12** **5 Credits**

This course focuses on improving keyboarding accuracy and speed skills. Students will work towards proficiency utilizing the Microsoft Office Suite to include: Word, Excel, Access, and PowerPoint. The course integrates hardware, software, and proper Internet use as they apply to businesses and universities. Written and oral levels of business communication are emphasized throughout the year.

WEB PAGE DESIGN **Grades 10, 11, 12** **2 ½ Credits**

Web Page Design is a hands-on introduction to HTML and Web page creation. Students will acquire the skills needed to develop, design, and produce basic web pages, including conceptualization and design of a web site. Comprehensive HTML skills will be studied as the basis for all web page layout, design, and delivery. Additionally, the course examines the use of protocols over the Internet, web browser functionalities, and file transfer utilities. Students will be engaged in designing their own professional looking web site.

WEB MASTER **Grades 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Successful completion of Web Page Design

Students will move beyond basic web design skills and acquire advanced design skills for web development. Using the industry-standard web software, the learner will study the fundamental concepts of Adobe Dreamweaver with a strong emphasis on design. Students will gain valuable and comprehensive software skills to build their own exciting and dynamic Web sites and develop Internet applications. Students will continue to refine their design documentation skills and create a Dreamweaver Web site.

INTRODUCTION TO MULTIMEDIA **Grades 10, 11, 12** **2 ½ Credits**

This course of study will introduce the student to the fundamental concepts, methods, and development processes of animated applications using Adobe Flash Professional. Students will be presented with an introduction to Adobe Flash and move on to drawing shapes, adding text, and creating symbols. You will then learn about creating animations and special animations and about making a document interactive. Course emphasis is on conceptualizing and producing effective multimedia presentations for Web media and CD-ROM.

ADVANCED MULTIMEDIA **Grades 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Successful completion of Introduction to MultiMedia

This course of study will expose the students to a series of advanced concepts, methods, and development processes for the production of an animated Web site using Adobe Flash Professional. Students will learn how to create special effects with graphics and gradients, programming with ActionScript, and using Adobe Flash components and video. Students will learn how to create rich, interactive experiences for the Web, ranging from simple looping banners and interactive menus to a complete Web site with Adobe Flash.

FINANCIAL LITERACY **Grades 9, 10, 11, 12** **2 ½ Credits**

This course emphasizes personal financial responsibilities related to bank accounts, credit and debit cards, bills, credit scores, insurance, investing and more. Through this exploration, students will be able to identify what is needed to make a desired salary, examine work ethics and skills needed to develop good financial goals. Learning activities include using a visual computer simulation that provides exciting learning opportunities to practice developing a personal inventory of individual skills, completing a credit card comparison task based on research; calculating the cost of credit on a fictitious purchase; and financing a first car purchase. This course satisfies the state graduation requirement for economics.

INTRODUCTION TO BUSINESS **Grades 9, 10, 11, 12** **5 Credits**

This course introduces students to the basic principles of business. Students will develop an understanding of the functions of business and examine how decisions and behaviors affect the supply and demand for goods and services. Students will also explore various forms of communication technology, human resources, and the importance of ethics and social responsibilities. This course builds a foundation for further studies in business and helps students develop business knowledge and skills needed to be a successful contributing member of society.

BUSINESS MANAGEMENT/ENTREPRENEURSHIP Grades 10, 11, 12 2 ½ Credits

Each year thousands of individuals build rewarding careers by becoming entrepreneurs or launching new business ventures. This course is designed to simulate their experiences by preparing a business plan, analyzing markets, and estimating the financial needs of a small business. It also provides a study of the American free enterprise system, including legal forms of business ownership.

BUSINESS AND CONSUMER LAW Grades 10, 11, 12 2 ½ Credits

This course will prepare students to understand fair and legal practices in consumer and tort laws that affect regulating businesses and government. Students will also be exposed to situations ranging from contracts, insurance, real estate, bankruptcy common laws, to government regulation of consumer practices and cases in which a person has been injured or caused harm to others and or property, and employer/employee relationships. This course is recommended for any student wishing to gain a fundamental understanding of our legal system as a pre-law student or criminal justice major. The course is also recommended for future business leaders who want to increase their understanding of fair, moral and ethical responsibilities as it relates to customers, employees, and society as a whole.

INTERNATIONAL BUSINESS STUDIES Grades 10, 11, 12 2 ½ Credits

In keeping with the initiative for 21st Century Skills, this course focuses on the development of global awareness and the needs of business to compete in a global economy. Students will explore cultural influences on global business, government and politics as they relate to doing business around the world, and a basic understanding of how businesses operate when doing business with other countries. One of the many highlights of the course is an International Business Travel Project and Presentation, as students research and present necessary ‘know before you go’ information, and an exciting itinerary for their virtual destination abroad.

IMPROVING NOTETAKING AND LISTENING SKILLS Grades 10, 11, 12 2 ½ Credits

This is a course designed for students interested in an abbreviated writing style for taking notes. This course not only aids students in taking lecture and research notes, but also improves listening and memory skills. Notetaking will help students enrich their study skills, which have proven to be a valuable asset for all students pursuing higher education.

INTRODUCTION TO MARKETING Grades 10, 11, 12 5 Credits

Discover the secrets behind Pepsi, Wendy’s, NASCAR, top fashion moguls such as Nike, and other successful names, as you go behind the scenes of the most powerful marketers in the world. Learn why ‘It’s all about the Marketing’ and all that marketing entails. Discover the recipe for success in advertising, sales, merchandising, and management while having the chance to apply your own creative marketing skills through projects, research and presentation. Members of the Marketing class are invited to join the student marketing organization DECA (Distributive Education Clubs of America), where they will develop leadership skills, civic consciousness and the opportunity to put their marketing and business ideas into play as they compete in a career area of their choice. Some of the areas of competition include advertising, apparel and accessories, sports management, restaurant management, travel and tourism and much more! Students can continue their DECA activities by joining Delta Epsilon Chi at many colleges and universities.

COOPERATIVE MARKETING EDUCATION Grade 12 15 Credits

Marketing Co-Op is a senior internship program that provides advanced Marketing and Business instruction in the classroom, and the opportunity to apply those concepts through a Field Experience in the afternoon. The course content includes marketing and management skills as they relate to employees, managers and business owners. The program is recommended for college and career bound students who wish to gain initial field experience in a particular career area, and learn more than just the basic responsibilities of the workforce. The course grade is a combination of classroom studies and on-the-job

evaluation. Typical internships include placement at retail establishments, investment firms, insurance companies, daycare centers, banks, and more. Students must secure a position in a non-hazardous career environment at the beginning of the school year, through their own discovery or with the help of the Coordinator. Students accepted into the program must have working papers on file, and be well-versed in the policies of the program and the workplace. Interested students will review the responsibilities and guidelines of the program to make the best choice for their year-long field experience. Cooperative Marketing students are also invited to join DECA (Distributive Education Clubs of America, which provides numerous scholarship opportunities and the opportunity to compete against other high school students in a marketing field of interest. Membership in DECA will also provide co-op students with the leadership and social skills many colleges and universities seek.

ENGLISH

The goal of the English department is to develop students' critical thinking, listening, speaking, reading, writing, and study skills. Assignments and experiences commensurate with their needs and abilities will challenge all students to develop competency in their use of the English language and to understand both classic and modern literature. Freshmen, sophomores, juniors and seniors must take a required English course each year. Students must take English I, II, III, and IV and pass the High School Proficiency Assessment as graduation requirements.

ENGLISH I

In this course emphasis is placed on reading, writing, speaking, listening, thinking, and study skills. Assignments include narrative, descriptive, and expository paragraphs and essays developed through the writing process - prewriting, drafting, revising, editing, and publishing. A unit on using the Media Center is included in the course; research techniques are explored in conjunction with the preparation of a research paper. Students will learn how to prepare and to deliver a well-organized speech. The literature includes fiction and nonfiction written by a variety of classic and contemporary authors. All students will be challenged to apply higher-level thinking skills. Materials, techniques and pacing will be modified to address individual students' needs and abilities. Course assignment will be determined by the students' score on the ninth grade placement rubric.

ENGLISH I HONORS

Grade 9

5 Credits

This course is available to students who are highly motivated and who have demonstrated advanced reading and writing skills. These skills will be reinforced through challenging reading and writing assignments with emphasis placed on critical analysis. Students in this course will be required to complete summer reading and writing assignments.

ENGLISH I A

Grade 9

5 Credits

Students will use their knowledge of basic communication skills as the foundation for more challenging reading, writing, and speaking assignments. Emphasis will be placed on integrating and applying these skills.

ENGLISH I B

Grade 9

5 Credits

English IB is for students who have satisfied minimum requirements on standardized tests but who have difficulty grasping higher-level thinking and reading concepts and expressing themselves in cohesive and correct written work. The course emphasizes establishment of solid foundations in basic communication and study skills, and applying them to various types of reading and writing assignments.

ENGLISH I C

Grade 9

5 Credits

Students who have not met the required level of competency in either reading or writing on the ASK 8 will be placed in English IC. This course emphasizes basic reading, writing, speaking, listening, and study skills necessary for success in all subjects.

ENGLISH HSPA PREP I

Grade 9

2 ½ Credits

This semester course is an extension of English IC with small group and individualized instruction that focuses on the areas of weakness indicated by individuals' standardized test results. The goals of the course are to improve basic skills and achieve a satisfactory score on the HSPA. This course is highly recommended for students who scored below state proficiency levels on the ASK 8. Students in this course will be evaluated on a pass/fail basis.

ENGLISH II

Effectiveness and style in writing and speaking as well as understanding of reading assignments are the major goals of English II. A variety of writing assignments will give students experience in applying the rules of grammar and standard written English while practicing the writing process. Students will continue to develop good speaking habits by delivering an informative speech. Vocabulary development is also an integral part of English II. The focus in reading is on the historical development of American literature. Through exposure to a wide range of authors, genres, literary styles, and periods, students will reinforce and improve their reading skills along with enhancing their awareness of American culture.

While the goals will be similar for all English II students, materials, techniques and pacing will be modified to address individual students' needs and abilities. Students will be placed in one of the following levels based on standardized test scores, past performance, and teacher recommendations.

ENGLISH II HONORS

Grade 10

5 Credits

PREREQUISITE: Must achieve a grade of at least an 85 in English I Honors or a 93 in English IA.

This course is available to students who are highly motivated and who have demonstrated advanced reading and writing skills. Skills will be reinforced through challenging reading and writing assignments with emphasis placed on critical analysis. Students in this course will be required to complete summer reading and writing assignments.

ENGLISH IIA

Grade 10

5 Credits

This course is for students with above-average ability in reading and writing. Students will use these skills to develop variety and style in their writing and to analyze literature from classic and contemporary American authors.

ENGLISH IIB

Grade 10

5 Credits

English IIB is designed for the average student. Emphasis will be placed on development of reading and study skills, vocabulary development, and writing. Stories, poems, plays, essays, and novels will be used to enhance reading and vocabulary skills and to increase student awareness of our American heritage.

ENGLISH IIC

Grade 10

5 Credits

Students who have not met the required level of competency in either reading or writing will be placed in English IIC. This class emphasizes basic reading, writing, and study skills, especially those covered on the High School Proficiency Assessment (HSPA). Literature by American authors will make students aware of our cultural heritage.

ENGLISH HSPA PREP II

Grade 10

2 ½ Credits

This semester course will be an extension of English IIC with small group and individualized instruction that focuses on the areas of weakness indicated by individuals' results. Students have not demonstrated proficiency in state core curriculum content of standards. Students in this course will be evaluated on a pass fail basis.

ENGLISH III

Understanding the roots of our English language heritage through the study of British literature is one of the goals of the English III curriculum. Students will also continue to develop their skills as readers, writers, and speakers through class activities, homework, special projects, and assessments. Emphasis is placed on vocabulary development and the writing process in preparation for the SAT and the High School Proficiency Assessment (HSPA). Through exposure to the wide variety of authors, styles, genres, and historic and cultural influences found in British literature, students will reinforce and improve their language arts skills and develop a greater awareness of its influence on American culture and their own lives.

ENGLISH III HONORS **Grade 11** **5 Credits**

PREREQUISITE: Must achieve a grade of at least an 85 in English II Honors or a 93 in English IIA.

This course, which is a study of British literature, demands a high degree of academic excellence and student responsibility. It is available to advanced students who have demonstrated exceptional reading, writing, and critical thinking skills. Standardized test scores, past performance, and teacher recommendation will be used in the selection process. Writing proficiency is emphasized, especially in the areas of critical analysis, expository essays, and the research paper. The course content emphasizes a humanities approach to British literature from the Anglo-Saxon period to contemporary literature. Students in this course are expected to complete assigned required summer reading and writing assignments.

ENGLISH IIIA **Grade 11** **5 Credits**

The purpose of this course is to prepare above-average students for the rigorous demands of college-level study. Activities will be directed toward developing study skills that are needed in college. In addition, the course is designed to improve skills in writing, vocabulary, reading, and speech. Students will also be made aware of American literary heritage through reading the literary works of Great Britain from Anglo-Saxon times through the 20th century.

ENGLISH IIIB **Grade 11** **5 Credits**

This course is designed for the average student who is considering a college education. The primary goal is to improve skills in writing, vocabulary, reading, and speech through the study of classic British literature and the historical and cultural developments that shaped it.

ENGLISH IIIC **Grade 11** **5 Credits**

This course is designed for students who are at risk of failing the High School Proficiency Assessment (HSPA) and who need to review the basic skills of the English language: reading, writing, listening, speaking, and vocabulary. Reading skills will be reinforced through the study of short stories, plays, poems, essays, and novels.

ENGLISH HSPA PREP III **Grade 11** **2 ½ Credits**

This semester course is for those students who have not met the required level of competency in either reading or writing on the High School Proficiency Assessment (HSPA). Small group and individualized instruction will focus on the areas identified as weaknesses in state core content standards. This course is highly recommended for students enrolled in English IIIC. Students in this course will be evaluated on a pass fail basis.

ENGLISH IV

Students in English IV will continue to integrate all language arts skills gained through their education. The course stresses reading, writing, speaking, listening and critical thinking skills to prepare students for college and the workplace. Students will continue to explore expository, critical, and argumentative modes of expression in essays and research papers. English IV incorporates a variety of literary genres and utilizes a humanities approach to world literature that reflects cultural diversity and a broad spectrum of literary styles.

AP ENGLISH IV **Grade 12** **5 Credits**

PREREQUISITE: Must achieve a grade of at least an 85 or higher in English III Honors and teacher recommendation.

The purpose of this college-level class is to offer exceptional students an opportunity for post-secondary study while still in high school. The course content covers the general framework prescribed by the Advanced Placement Program: language, composition, and literature. Word analysis, semantic change, diction, and figurative language are emphasized as students strive to improve their vocabulary

and practice critical analysis through readings. Literature is taken from an anthology of world literature in addition to supplementary novels and plays. Particular attention is given in the area of composition to essay examinations, critical essays, and the research paper. Standardized test scores, past performance, a writing sample, and teacher recommendations are used in the selection process for this course. Students in this course are expected to complete summer reading and writing assignments.

ENGLISH IVA **Grade 12** **5 Credits**

This course is designed for students with above-average ability. It emphasizes the relationship among academic writing, reading comprehension, and analytical thinking. While emphasis is placed on exposition, students will practice writing in a variety of genres for a range of audiences. They will also critically analyze various types of literature. Clarity, completeness, quality of argument, and style are the goals of writing. Students will be exposed to classic literature written by a wide variety of authors from around the world, including the Greeks, the Middle Ages, the Renaissance, the Age of Rationalism, Romanticism and Realism, and Modern Europe and Africa.

ENGLISH IVB **Grade 12** **5 Credits**

This course is designed for the average student who is considering a college education. Emphasis is placed on developing sophistication in writing skill and style. Students will write paragraphs and compositions based on varied patterns of organization and sources of material. They will also develop a research paper systematically from selection of topic through final draft. Through readings, students will be exposed to significant historical, philosophical, religious, scientific, cultural, and literary developments of major periods in world literature.

ENGLISH IVC **Grade 12** **5 Credits**

This course is designed for students who have failed the High School Proficiency Assessment (HSPA) and who need to review the basic skills of the English language in the areas of reading, writing, listening, speaking, and vocabulary development. The materials and approaches used will continue to emphasize the practical aspects of these skills.

ENGLISH HSPA PREP IV **Grade 12** **5 Credits**

This course is required for those students who have not met the required level of competency in either reading or writing on the High School Proficiency Assessment (HSPA). Small group and individualized instruction will focus on the areas identified as individual student's weaknesses. Students in this course will be evaluated on a pass fail basis. The AHSA (Alternative High School Assessment) will be administered in this course.

ENGLISH ELECTIVES

NOTE: These courses are scheduled in addition to the required English course.

COLLEGE WRITING **Grades 10, 11, 12** **2 ½ Credits**

Students who plan to attend college are encouraged to take this semester course, which focuses on the relationship among academic writing, reading comprehension, and analytical thinking. While emphasis is placed on exposition and argument, students will practice writing in a variety of modes for a range of audiences. Writing as a process, including prewriting, drafting, revision, and proofreading, will be practiced. Clarity, completeness, quality of argument, and style are the goals of writing. Assignments will simulate the reading and writing experiences that students are likely to encounter in college.

CREATIVE WRITING **Grades 10, 11, 12** **2 ½ Credits**

This semester course integrates literature and creative writing. Students are encouraged to express themselves as individuals as well as emulate the styles of selected authors and genres. Students will study the tools at an author's disposal, such as figurative language, sound effects, imagery, and satirical devices. They will use their knowledge of these tools to analyze literature and to write both prose and poetry.

JOURNALISM I **Grades 9, 10, 11** **5 Credits**

This course acquaints students with the fundamentals of journalism, from writing news articles to producing the school newspaper, *Roxbury Review*. Methods of writing news stories, features, reviews, sports, and editorials are studied. Students also learn about journalistic writing style and gain experience in revising and editing their work as well as study the basics of newspaper design and layout. Students also learn how to evaluate the Internet and other sources for bias and engage in critical thinking about the role the media plays in our lives.

JOURNALISM II **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Journalism I

Journalism II provides students who have completed the Journalism I course with the opportunity to increase their knowledge of the field and further fulfill their potential as writers/reporters. Journalism II students are expected to assume leadership roles on *Roxbury Review* staff, including participation in editorial decision-making and production. As writers, they are challenged to write in depth about complex issues. As editors, they enhance their knowledge of newspaper management, design, layout, and production. They also act as mentors to Journalism I students.

PUBLIC SPEAKING **Grades 9, 10, 11, 12** **2 ½ Credits**

The ability to communicate effectively is the key to successful careers and personal relationships. This semester course offers students an opportunity to develop the necessary speaking and listening skills to confidently meet the diverse challenges that are faced at all stages of life. In this course students learn to understand the importance and variety of speech communications and come to appreciate the social and ethical responsibilities of communicators. Practical techniques for improving, analyzing, and evaluating speaking skills are emphasized; students also learn to become critical listeners.

TELEVISION PRODUCTION **Grades 10, 11, 12** **5 Credits**

Television Production is an elective course designed to meet the needs of the student who wants to be exposed to the advanced study of writing for the media, production theory, and production techniques. The course will concentrate on critical and creative (script) writing, knowledge of television production equipment and organizational skills. Once a foundation is established in theory, the course will become practical, and filming techniques previously learned will be utilized. Students will film a variety of projects, from news broadcasts to commercials to original short films. They will be writing scripts and drawing storyboards, then making them a reality. Digital editing will be stressed with an emphasis on continuity through montage editing. This course will also delve into animation where students will be able to create short animated projects.

YEARBOOK PRODUCTION **Grades 9, 10, 11, 12** **5 Credits**

Through the use of current techniques in writing, editing, and design, students will assist in the production of their yearbook, the *Echo*. Students will also learn about writing in journalistic style to produce yearbook stories and captions. Basic photography and the use of photographs and art to enhance design will also be covered. Included in the course will be the "business" side of publishing, from budgeting to advertising sales, as well as general business practices. In addition to these areas, students will use the fourth marking period to apply the skills acquired in producing the school yearbook to create a 15- to 20-page personalized yearbook of their own. Most of all they will have the satisfaction of helping to create the record of that year in high school history.

ENGLISH AS A SECOND LANGUAGE (ESL)

English as a Second Language is for speakers of languages other than English who have not mastered the English language in all stages of language development: listening, speaking, reading and writing. Students in grades 9, 10, 11, and 12 will be placed in a class determined by their language proficiency. All instruction is in English.

BEGINNING ESL

PREREQUISITE: Less than one year of English or by recommendation of the teacher.

This course is designed for the foreign student (grades 9-12) with little or no English language proficiency. The emphasis will be on developing listening comprehension and speaking abilities. Reading and writing will be introduced gradually and the instruction will be designed to meet individual student needs.

COMMUNICATION AND CULTURE

PREREQUISITE: Less than two years of formal English instruction or by recommendation of the teacher.

The emphasis in this course will be on strengthening and developing basic language skills and cultural understanding. In addition to a study of communication skills, the course will provide intensive language practice in reading and writing activities.

INTERMEDIATE ESL

PREREQUISITE: A minimum of two years of formal English instruction or by recommendation of the teacher.

The course continues to emphasize developing the four language areas: listening, speaking, reading and writing. Class discussions, projects and activities are also a major part of the course.

ADVANCED ESL

PREREQUISITE: Beginning and Intermediate ESL courses, a minimum of 4 years of English or by recommendation of the teacher.

This course is designed for the non-native English speaker who has completed prior ESL courses but requires additional help in succeeding in mainstream classes. Focus is on reading comprehension and writing with continued work in listening and speaking skills.

FAMILY & CONSUMER SCIENCES

Welcome to the wonderful world of food, fashion, personal finance and child development. The foods area of Family and Consumer Sciences provides instruction ranging from basic cooking techniques to gourmet fare, with a focus on healthy dietary choices. Career opportunities in the expanding field of Food Services/Hospitality are presented. In the child development area three courses are offered which provide a range of study that includes observation and interaction with young children, effective parenting and career exploration and teaching young children in our laboratory pre-school. A course in Fashion Design introduces students to the world of fashion and its many career opportunities. The Life Management course focuses on personal financial literacy. Students will develop skills and strategies that promote personal and financial responsibility such as managing credit, and making wise consumer decisions. Courses in food preparation, child-care, fashion design and personal finance all contribute to our overall goal - the growth and development of a self-reliant, productive mature adult.

FOODS I **Grades 9, 10, 11, 12** **5 Credits**

Foods I is a full-year course that offers a practical approach to basic food preparation and baking techniques, designed to promote healthy dietary practices. This is a hands-on laboratory work and learning experience. Students will prepare nutritious recipes as they study each section of the food pyramid. Other topics covered are eating disorders, kitchen design and kitchen terminology.

FOODS II **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Foods I

Foods II is a full year course and builds on the foundation Foods I provided for students. This class offers a variety of practical learning experiences for advanced students. Projects, such as the gingerbread house, provide students the opportunity to work collaboratively to plan design and create something special. Students will also explore food service planning, budgeting, nutrition principles, menu design, and dining etiquette. Students will research the many jobs and careers associated within the food service industry and gain the experience needed for each specific career.

WORLD CUISINE **Grades 11, 12** **2 ½ Credits**

PREREQUISITE: Foods II

World Cuisine is a half year course designed to introduce students to the world of international cuisines. Students will learn the cultural influences on food customs as well as traditional foods, cooking techniques, and a variety of food preparations common to various cultures. Students will prepare a variety of nutritious recipes that represent customary foods from each country studied. Recipes will be provided for students to create an international recipe book.

CREATIVE COOKING **Grades 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Foods II

Creative Cooking is a half year course providing students with the opportunity to use creative skills in food preparation. Students will learn the principles of food presentation which is the foundation for recipe preparation for each unit of study. The advanced cooking course involves preparation of multi-step recipes for appetizers, soups, salads, cookies, candy, and cakes. Students will learn the basic techniques for making dressings, sauces, the use of seasonings, and cake decorating. Students will choose recipes based on their skill level and are encouraged to give each recipe a personal creative flair.

CAREERS WITH CHILDREN & FAMILIES **Grades 9, 10, 11, 12** **5 Credits**

Join us in exploring the many career paths in the 21st century global workforce! This course allows for students to study various career clusters and paths necessary to be a productive member of the global society and workforce. Students will also learn how to meet challenges

and opportunities of the global workplace. As societal and economic conditions change, students will learn that there are opportunities to change careers. Students will be challenged to develop critical thinking and problem-solving skills necessary through various projects and field trips with career clusters. Students will be encouraged to use creativity along with integration of new technologies.

EDUCATION FOR PARENTHOOD **Grades 10, 11, 12** **5 Credits**

This course will combine classroom work in child development with observation and participation with community children in the child-development lab. Students will develop insights into relationships with the child in the family, community, and society that will encourage them to become informed, successful parents. Careers in the expanding child-care field will be explored.

TEACHING YOUNG CHILDREN **Grades 11, 12** **10 Credits**

This double-period per day course prepares students for a career in teaching and child-care services. While gaining an understanding of human development and psychology, the students work with and observe preschoolers in the specially equipped child-care laboratory. Students will plan and operate a regular nursery school and explore a variety of occupations. Upon successful completion of the course, each student will receive a state approved child-care certificate.

LIFE MANAGEMENT **Grades 11, 12** **5 Credits**

This class investigates topics not addressed in most other classes in high school. Life Management is designed to aid the student in meeting the financial challenges of every day life. Making informed decisions, banking and credit, budgeting, insurance, taxes, consumer rights and responsibilities, problem solving, job skills, character development, as well as other life skills are all addressed! Come see how to apply all this information to your everyday life to help you succeed.

FASHION DESIGN **Grades 9, 10, 11, 12** **5 Credits**

This full year course will introduce students to the elements and principles of design as it pertains to fashion. Students will develop the skills necessary to achieve their own personal and professional look. They will also gain insight into how clothing is constructed and the influence of fabrics and figure proportions to fashion design and personal wardrobe planning. Students will study the concept of draping techniques, how to create silhouettes, and pattern designing. This course will provide a sound foundation for future study in the many fields of the fashion industry.

INDUSTRIAL ARTS & TECHNOLOGY

The goal of the Industrial Arts and Technology Department is in keeping with the finest tradition of a comprehensive education – to serve all the needs of our student population. Our sequential Drawing and Design curriculum is designed to meet the needs of those students planning to major in Engineering, Architecture, or Design. Our courses in Woods and Electricity allow students hands on opportunities to develop practical skills and experiences. All students can find a course suited to their needs and interests.

ARCHITECTURAL DRAWING AND DESIGN I Grades 9, 10, 11, 12 5 Credits

If you are interested in the fields of Architecture, Engineering, Interior Design or Construction, you will benefit from this introductory course. Topics covered will include basic terminology, architectural symbols, and environmental and ergonomic design considerations. Students will design and draw plans showing elevations, structural considerations, room layout, interior decorating, and pictorial presentations. Students will begin building a portfolio using CAD, Computer Aided Drafting. This course is highly recommended for students planning to major in Engineering, Architecture, or Commercial Design.

ARCHITECTURAL DRAWING AND DESIGN II Grades 10, 11, 12 5 Credits

PREREQUISITE: Architectural Drawing and Design I

This elective is aimed at expanding the knowledge and skills developed in Architectural Drawing and Design I. The students will complete drawings reflecting the electrical/mechanical aspects of architecture. Students will become proficient on the CAD, (Computer Aided Drafting) system. The development of independent design ideas, as well as collaborative planning, is stressed. This course is highly recommended for students planning to major in Engineering, Architecture, or Commercial Design.

ENGINEERING DRAFTING AND DESIGN I Grades 9, 10, 11, 12 5 Credits

This course introduces students to drafting instruments and their proper use for drawing and sketching. Course content will include visualization of views, geometric construction, and basic dimensioning. Students will use design and analysis methods for problem solving and will learn to read and interpret prints. CAD (Computer Aided Drafting) is introduced. This course is strongly recommended for students planning to major in Engineering, Architecture, or Commercial Design.

ENGINEERING DRAFTING AND DESIGN II Grades 10, 11, 12 5 Credits

PREREQUISITE: Engineering Drafting and Design I

This course offers students an opportunity to refine the drafting skills acquired in the first-year course, and introduces advanced AutoCAD commands and applications. Content includes: shape description, applied geometry and advanced design concepts. This class is strongly recommended for students planning to study Engineering, Architecture, or Commercial Design.

ADVANCED COMPUTER AIDED DESIGN Grades 11, 12 5 Credits

PREREQUISITE: Engineering Drafting and Design I & II or Architectural Drawing and Design I & II.

This advanced course teaches all drawing directly on an AutoCAD System. Course content will include the language of industry, dimensioning, section drawings, drawings for numerical control, geometric tolerance, auxiliary views, and pictorial drawings. This class is strongly recommended for students planning to study Engineering, Architecture, Commercial Design.

MATHEMATICS

The mathematics department offers a comprehensive program of study designed to meet the needs of all students at all levels of mathematical development. Our mathematics courses emphasize the skills necessary for students to be successful in their college and career choices. The goals of the mathematics department are to assist students to become problem solvers, to think and communicate mathematically, to become critical thinkers and to value the role of mathematics in society and in a multitude of other disciplines. Freshmen, sophomores and juniors must take a mathematics course within the mathematics department. All students must take a minimum of three years of mathematics and pass the state High School Proficiency Assessment (HSPA) as a requirement for graduation. Course assignment for freshmen will be determined by student's score on the ninth grade placement rubric.

ALGEBRA IA **Grade 9** **5 Credits**

Algebra IA is the study of the structure of the real number system in a general and abstract manner. It is designed for the student with above average ability. The student uses symbols representing numbers to perform the operations of addition, subtraction, multiplication, and division on the integers, rational and irrational numbers and to solve equations and inequalities. Graphing and problem solving skills are developed. Knowledge of the fundamental operations of arithmetic is required. Students should demonstrate proficiency in the use of signed numbers, variables, and operations with rational and irrational numbers.

ALGEBRA IB **Grade 9** **5 Credits**

Algebra IB is the study of the structure of the real number system in a general and abstract manner. It is paced for the average ability student. The student uses symbols representing numbers to perform the operations of addition, subtraction, multiplication and division on integers, rational and irrational numbers, to solve equations, inequalities and problems. Knowledge of arithmetic and Pre-Algebra skills are required.

ALGEBRA IC **Grades 9** **5 Credits**

Algebra IC is the study of the structure of the real number system in a general and abstract manner for the student who has difficulties mastering mathematical concepts and skills. The student uses symbols representing numbers to perform all operations on integers, rational and irrational numbers. Equations and inequalities will be solved. Knowledge of arithmetic is required.

INTRODUCTION TO ALGEBRA **Grade 9** **5 Credits**

Introduction to Algebra provides the foundation for algebra, geometry and problem solving that is needed for success in subsequent courses. Students will develop prerequisite skills necessary for Algebra I including the use of signed numbers and variables. Students will study operations with rational numbers, simplifying and evaluating algebraic expressions, percents, solving equations, linear functions, probability, and graphing. Students must have successfully completed Grade 8 Math.

MATH HSPA PREP I **Grade 9** **2 ½ Credits**

HSPA Math Prep is a semester course for freshmen that have been identified as needing continued assistance in developing mastery of mathematical skills and who have not demonstrated proficiency on the ASK 8. Students will focus on content areas outlined by the New Jersey Core Curriculum Content Standards for mathematics. The goals of this course are to improve basic skills and develop test-taking strategies. This course does not meet math graduation requirements. Students in this course will be evaluated on a pass/fail basis.

GEOMETRY HONORS **Grade 9, 10** **5 Credits**

PREREQUISITE: Algebra IA grade of 97

Geometry Honors is for the student with outstanding aptitude, interest and achievement in mathematics. Emphasized are algebraic concepts, logical thinking, deductive reasoning, mathematical proofs, and the properties of plane and spatial figures. A greater number of theorems are presented for mastery and algebraic applications are emphasized. Geometric inequalities, analytic proofs and transformations are also presented.

GEOMETRY A **Grade 9, 10** **5 Credits**

PREREQUISITE: Algebra IA grade of 80

Geometry A is a college preparatory course for the above average student that emphasizes logical deductive reasoning, mathematical proofs, and properties of plane and solid geometric figures and shapes. Topics include: lines, angles, triangles, congruence, similarity, parallelism, polygons, circles, solids, area, volume, constructions and transformations.

GEOMETRY B **Grade 10, 11** **5 Credits**

PREREQUISITE: Algebra IB grade of 75

Geometry B is designed for the average ability college preparatory student who has completed Algebra I. Proofs are de-emphasized in synthetic and analytic forms. Topics include: lines, angles, triangles, congruence, similarity, parallelism, polygons, circles, solids, area, volume, constructions and transformations.

GEOMETRY C **Grades 10, 11** **5 Credits**

PREREQUISITE: Algebra IC

Geometry C is a college preparatory course for the student who has difficulty mastering mathematical concepts and skills. Although the same topics are covered as in Geometry B, more manipulative hands-on student investigation and alternative assessment projects are encouraged. Recognition and application of definitions, theorems and postulates is emphasized.

MATH HSPA PREP II **Grade 10** **2 ½ Credits**

This semester course designed for sophomores who have not met the required level of competency on state assessments. Students will receive individualized and small group instruction aimed at developing the math skills necessary to achieve proficiency on the HSPA. This course does not fulfill math graduation requirements. Students will be evaluated on a pass/fail basis.

ALGEBRA II HONORS **Grades 10, 11** **5 Credits**

PREREQUISITE: Geometry H, grade of 85, Geometry A, Algebra IA grade of 97.

Algebra II Honors is designed for the outstanding mathematics student. The properties of the complex number system are developed. Linear, quadratic functions and relations, as well as rational and imaginary expressions are studied. This course is a prerequisite for PreCalculus Honors.

ALGEBRA IIA **Grades 10, 11** **5 Credits**

PREREQUISITE: Algebra IA and Geometry A, grade of 80

Algebra IIA is designed for the student with above average ability in mathematics. The properties of the real numbers system as developed in Algebra I are reinforced and the additional properties of the complex number system are developed. Linear, quadratic functions and relations as well as operations with rational, irrational, and imaginary expressions are studied. This course is a prerequisite for PreCalculus.

ALGEBRA IIB **Grades 11, 12** **5 Credits**

PREREQUISITE: Algebra IB, and Geometry B, grade of 75

Algebra IIB is designed for the college preparatory student who has completed geometry. Proficiencies include linear and quadratic functions, relations and the operations with rational, irrational, imaginary and complex expressions. This course is not designed for the student who plans to take Pre-Calculus or Calculus. A student may elect to take Advanced Algebra and Trigonometry after completing Algebra IIB if he/she achieves a grade of 85 or above.

ALGEBRA IIC **Grades 11, 12** **5 Credits**

PREREQUISITE: Algebra I and Geometry

Algebra IIC is designed for the college preparatory student who has completed geometry and has difficulty mastering mathematical concepts and skills. Proficiencies in this course include the linear and quadratic functions and relations as well as the operations with rational, irrational, imaginary and complex expressions. **This course is not designed for the student preparing for PreCalculus or Advanced Algebra and Trigonometry.** Students may elect Senior Math after completing Algebra IIC.

HSPA MATH PREP III **Grade 11** **2 ½ Credits**

This is a semester course designed to prepare juniors for the state High School Proficiency Assessment (HSPA). Students will focus on content areas outlined by the New Jersey Core Curriculum Content Standards and on strategies for responding to open-ended questions. This course is highly recommended for students in C level math courses and for students who did not demonstrate proficiency on the ASK 8 and/or the New Jersey Pass. This course does not fulfill math graduation requirements. Students in this course will be evaluated on a pass/fail basis.

PRECALCULUS HONORS **Grades 11, 12** **5 Credits**

PREREQUISITE: Algebra II Honors, grade of 85; Algebra IIA grade of 97

Honors PreCalculus prepares the student to elect the BC Advanced Placement Calculus. The student will study polynomial, rational, exponential, logarithmic and periodic circular functions and their applications. The graphing calculator will be used to make predictions, solve problems and verify solutions. Included will be trigonometric identities and equations, graphs in Cartesian and polar coordinates, solutions of triangles, and the linear and quadratic relations. The introductory concepts of Calculus, such as limits and the definition of the derivative, are studied as a prerequisite to BC Calculus.

PRECALCULUS **Grades 11, 12** **5 Credits**

PREREQUISITE: Algebra IIA, grade of 80

Students intending to study mathematical and scientific related fields during their college experience should elect PreCalculus. Functions (trigonometric, exponential, logarithmic, circular, linear, polynomial, rational), inverse functions, identities, equations (trigonometric, polar, linear, and quadratic), Cartesian and polar graphing, solutions of triangles, and application problems will be studied. Proficiency with algebraic skills and graphing calculators is important.

ADVANCED ALGEBRA AND TRIGONOMETRY **Grade 12** **5 Credits**

PREREQUISITE: Algebra IIA, grade of 75, Algebra IIB, grade of 85 and Proficient on the HSPA

Seniors who have completed Algebra IIA or Algebra IIB and who are preparing for a non-mathematical liberal arts college program may elect this course. Emphasis will be placed upon algebraic and geometric reinforcement, the concepts of trigonometry, cartesian and polar graphing, analytic geometry, and functions but with less rigor and depth than the PreCalculus course.

AP CALCULUS BC **Grade 12** **5 Credits**

PREREQUISITE: PreCalculus Honors, grade of 90

AP Calculus BC is for the accelerated student who has mastered a background of honors courses including the Honors PreCalculus. The course covers the equivalent of two semesters of college calculus proficiencies and prepares the student to take the AP Calculus BC Examination for college credit. Be prepared for extra in school and home study. Calculus, the mathematics of motion and change, is referred to as the foundation of advanced mathematics. Topics include curve-sketching, analysis of graphs given in functional, parametric, polar and vector form, limits, continuity, derivatives, integrals, sequences and series. Students will explore calculus applications to physics, economics, biology and the environmental sciences. Familiarity with the graphing calculator is required.

AP CALCULUS AB **Grade 12** **5 Credits**

PREREQUISITE: PreCalculus Honors, grade of 80, PreCalculus, grade of 97

AP Calculus AB is for the accelerated student who has achieved mastery of Algebra 1, Algebra 2, Geometry, and PreCalculus. The course covers the equivalent of one semester of the average college calculus proficiencies and prepares the student confidently to take the AP Calculus AB Examination for college credit. Be prepared for extra in school and home study. Calculus, the mathematics of motion and change, is often referred to as the foundation of advanced mathematics. Topics include analysis of graphs in functional form, limits, continuity, derivatives and integrals. Students will study applications of differential and integral calculus: distance, velocity, acceleration, areas, volumes, related rates and solids of revolution.

CALCULUS **Grade 12** **5 Credits**

PREREQUISITE: PreCalculus, grade of 80

This survey course in Calculus is designed to introduce students who have successfully completed PreCalculus to the major concepts of Calculus. The tools of Calculus, limits, continuity, derivatives and integrals, are taught with limited applications. This course is not structured to prepare students for the AP exams. Good algebra skills and geometric understanding are necessary. The course does not represent a semester of college Calculus.

INTRODUCTION TO PROBABILITY AND STATISTICS **Grades 11, 12** **2 ½ Credits**

PREREQUISITE: Algebra IIA or Algebra IIB

The components of statistical inference, measures of central tendency and dispersion, elementary probability, including independence and conditional probability, distribution functions, tests of hypotheses, and statistical reporting will be emphasized. These concepts have become basic tools of society in an information age, and are pivotal in the study of the social and natural sciences, especially in the fields of government, business, and industry.

INTRODUCTION TO COMPUTER SCIENCE I **Grades 9, 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Algebra IA can be taken concurrently

This course provides the foundation for the computer science sequence and is designed to introduce the student to computer programming. This is the first course in a three-year sequence that will prepare the student to successfully take the Advanced Placement Computer Science Examination. The student will plan, code, run and debug solutions to real world applications using the several programming languages. The student will also learn algorithms and techniques used in arrays, sorting, searching and data files in order to solve more complex problems and applications. The class is conducted in a lab format and most lab activities are completed during the class period. The course is only offered during the fall semester.

INTRODUCTION TO COMPUTER SCIENCE II **Grades 9, 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Introduction to Computer Science I, Algebra 1A can be taken concurrently

This course is the second in a three-year program designed to provide a foundation in computer programming. The student will use more advanced programming techniques in order to solve more complex problems and applications. This course is only offered during the spring semester.

INTERMEDIATE COMPUTER SCIENCE **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Introduction to Computer Science I & II, grade of 85

This course is a yearlong elective course, which will teach the student procedural and object-oriented programming skills and design. The student will be able to create and refine programs with the emphasis on object-oriented programming using the syntax of JAVA and JAVA SCRIPT. This course is a prerequisite to the AP Computer Science course.

**ADVANCED PLACEMENT
COMPUTER SCIENCE A** **Grades 11, 12** **5 Credit**

PREREQUISITES: Intermediate Computer Science, grade of 85

This yearlong elective Advanced Placement course is for the student interested in pursuing the study of Computer Science. The student will study programming methodology with an emphasis on problem solving and algorithm development. It is designated to be equivalent to a first semester college course in computer science. This course will prepare the student to take the Advanced Placement Computer Science Examination to qualify for college credit.

ADVANCED PLACEMENT STATISTICS **Grades 11, 12** **5 Credits**

PREREQUISITE: Algebra IIA or PreCalculus, grade of 90; English IIIA or IVA, grade of 85

The purpose of this course is to introduce the student to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inference. AP Statistics provides the necessary foundation for college level courses in the fields of psychology, science and business. This course will prepare the students to successfully take the AP Statistics Examination in order to qualify for college credit.

SENIOR MATH **Grade 12** **2 ½ Credits**

PREREQUISITE: Algebra IIC, grade of 85; Algebra IIB grade of 75 and Proficiency on the HSPA

In this semester course students will review fundamental concepts of Statistics, Algebra I, Geometry, and Algebra II in preparation for college entrance examinations and for a foundational college math course. Students will focus on refreshing and developing their math and problems solving skills and on the application of mathematical concepts to real world situations as well as the connection of math to other disciplines.

MATH HSPA PREP IV **Grade 12** **5 Credits**

This course is required for seniors who have not demonstrated proficiency on the HSPA. Students will receive remediation in areas identified by their HSPA scores in preparation for the October and March administrations of the HSPA. The Alternative High School Assessment (AHSA), an alternate method of demonstrating math proficiency for graduation, will be administered during this course. This course does not fulfill math graduation requirements. Students in this course will be evaluated on a pass/fail basis.

PERFORMING ARTS

MUSIC

The ability to enjoy music and to participate on an individual or group level is an integral part of daily life. The elective courses in the music department are designed to appeal to varied interests and levels. There is something for everyone, from the casual listener to the future music major. Evening performances are required for all performing ensembles. An extensive extracurricular performance program is offered in the areas of instrumental music, jazz, vocal music, dance and drama.

FRESHMEN WOMEN'S CHORUS Grade 9 5 Credits

Students will learn through performance of appropriate vocal music the principles of good singing, including diction, sight-reading and tone production. Students will have limited out-of-school commitments, performing in three concerts during the year. Freshmen Women's Chorus is a non-auditioned group, and membership is open to any female in grade nine.

CONCERT CHOIR Grades 9, 10, 11, 12 5 Credits

Students will learn through performance of appropriate vocal music the principles of good singing, including diction, sight-reading, and vocal production. Students will have limited out-of-school commitments, performing in 3 concerts during the year. Concert Choir is a non-auditioned group, and membership is open to any female in grades 10, 11, and 12 and any male in grades 9, 10, 11, and 12.

CHORALE Grades 10, 11, 12 5 Credits

PREREQUISITE: Audition

The Chorale is an auditioned curricular ensemble, and its students meet daily in one of two class sections. Members of the Chorale gain entry to the group through the spring placement auditions.

As the second most challenging curricular choir at Roxbury, the Chorale will provide singers with the opportunity to learn and perform challenging traditional and contemporary choral works. A member of the Chorale is expected to give the extra time necessary to help the group become an outstanding musical ensemble.

CLASSIC SOUNDS HONORS Grades 10, 11, 12 5 Credits

PREREQUISITE: Audition

Classic Sounds is for selected students with an ability and knowledge of singing fundamentals. A major function is to perform music of excellent technical quality. Students will be auditioned in the spring of the previous year for placement in Classic Sounds. The group will do a number of performances both in and out of the school in addition to the three annual concerts. Some out-of-school time will be required and students will receive honors credit.

BROADWAY AND THE MUSICAL THEATRE Grades 9, 10, 11, 12 2 ½ Credits

This course is designed for students who are presently singers wanting to pursue a performance-based class in the area of Broadway Theatre. Students will explore the art of musical theatre through performance, directing, listening, historical explorations and practical application of classroom experiences. The curriculum will include student involvement in actual directing, blocking, staging, acting, singing and all areas of the performance of Broadway musicals. Students who elect this class must be a member of one of the choir classes.

BASIC MUSIC THEORY**Grades 9, 10, 11, 12****5 Credits**

Music Theory is a developmental course for students who are planning to further their study of music either as a primary or secondary vocation.

ADVANCE PLACEMENT MUSIC THEORY**Grades 10, 11, 12****5 Credits**

PREREQUISITE: Basic Music Theory and teacher recommendation

This course is designed for the highly motivated, musically inclined student who possesses an interest in pursuing music in college. The ultimate goal of AP Music Theory is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of this goal is promoted by integrated approaches to the student's development of: aural skills through listening exercises, sight-singing skills through performance exercises, written skills through written exercises, compositional skills through creative exercises, and analytical skills through analytical exercises. The course will integrate aspects of melody, harmony, texture, rhythm, form, musical analysis, elementary composition, history and style. Musicianship skills such as dictation, sight-singing, and keyboard harmony will be explored.

SYMPHONY BAND**HONORS WIND SYMPHONY****Grades 10, 11, 12****5 Credits**

Band is open to all students with an interest or ability in a wind or percussion instrument. All students are placed in one of the two performing ensembles: Symphony Band or Wind Symphony. As part of this course a team of specialists on each family of instruments teaches band students during the school day. Students will have limited out of school commitments, performing in four to five concerts each year. Those students who are placed in Wind Symphony will receive honors credit, as advanced level work is required of all participants for entrance and participation.

THE NINTH SYMPHONY**Grade 9****5 Credits**

The Ninth Symphony is open to all freshman students with an interest or ability in a wind or percussion instrument. As part of this course a team of specialists on each family of instruments teaches band students during the school day. Students will have limited out of school commitments, performing in four to five concerts each year. This ensemble acts as an intensive training course to prepare students for successful participation within the high school band program.

STRINGS**Grades 9, 10, 11, 12****5 Credits**

The string class offers an opportunity for those students who play a string instrument and wish to further their musical abilities. Students will have limited out of school commitments, performing in three to four concerts each year. This course may be taken in addition to band or other music courses.

DANCE**DANCE****Grades 9, 10, 11, 12****5 Credits**

Dance is open to all students with an interest or ability in the art of dance. Dance is communicating through movement using time, space and energy. All students will be placed through an audition process in one of five ensembles: Expressions, Aspirations, Fusion, Synergy or Advanced Dance Ensemble. Students will explore the movement styles of modern, jazz and lyrical dance through technique classes. Study in dance history and terminology will provide the student with an appreciation for these dances. Students will have limited out of school commitments, performing in two to three concerts each year.

PHYSICAL EDUCATION, HEALTH, DRIVER EDUCATION THEORY

PHYSICAL EDUCATION

3.75 Credits Full Year

The physical education four-course series consist of experiential course offerings that progressively develop well-rounded citizens through participation in physical activities. These activities reflect the need and preferences of the students that they serve. The program offered includes:

Aerobics/Step Aerobics	Lacrosse	Team Handball
Archery	Modern Jazz	Tennis
Badminton	Pickleball	Track and Field
Basketball	Project Adventure(Gr.9)	Ultimate Frisbee
Fitness/Endurance (Run/walk)	Self-Defense	Volleyball
Golf	Soccer	Weight Lifting
	Softball	Yoga/Pilates

Assessment of students according to departmental standards is based on knowledge, skill, preparation, participation, and evaluation. Specifically, every student who successfully completes each physical education course is expected to have developed appropriate age-level mastery and proficiency and demonstrated an ability to: relate good mind and body conditioning to a healthy diet and daily exercise; construct a personal fitness program; perform satisfactorily on the President's Challenge Physical Fitness testing; participate in lifetime leisure sport activities; exhibit sportsmanship, skill appreciation and good audience behavior; function within a group as a useful member of a democratic society. Students will also be required to complete various topics and postings on the physical education wiki sites.

Students in 9th and 12th grade Physical Education classes will be assigned to Health for one marking period. Students in 10th grade will be assigned to Driver Education Theory for one marking period. Students in 11th grade will be assigned one marking period of a certified first aid course.

NINTH GRADE HEALTH

1.25 Credits with Phys. Ed.

This course provides students with a unified basic, health program that fosters the concept that health is a most prized possession and an integral part of every phase of life. Students acquire knowledge that their level of health affects their ability to learn, to live and to relate to others.

The key concepts of study in the course are:

1. Health decisions that affect the way one feels.
2. Mental health.
3. Food and nutrition.
4. Understanding your sexuality.
5. Communicable diseases
6. Drugs, alcohol and smoking.
7. Death and dying
8. Suicide.

TENTH GRADE DRIVER THEORY

1.25 Credits with Phys. Ed.

Driver Education Theory is the first segment of driver education. This course is only offered to 10th grade students. Students in 10th grade Physical Education take it during one quarter. In order for students to be able to pass the classroom instruction, they must get a grade of D- or better. They must also pass the State of New Jersey written driving test with a grade of 80% or better. After turning sixteen and passing both driver classroom instruction and the N.J. State written test they are eligible to take a Behind-the-Wheel program.

ELEVENTH GRADE HEALTH: FIRST AID

1.25 Credits with Phys. Ed.

The purpose of this course is to provide students with a personal first aid education through the American Heart Association that will afford them the knowledge to handle minor daily occurrences. In addition, the skills necessary to administer lifesaving, emergency care until trained professionals arrive will be addressed in this certified course.

The key topics of study are:

1. Wounds.
2. Bodily injuries.
3. Shock.
4. CPR and Respiratory Emergencies.
5. Poisoning.
6. Drugs and Abuse.
7. Burns.
8. Exposure.

TWELFTH GRADE HEALTH

1.25 Credits with Phys. Ed.

Students learn that health is more than just the absence of disease. It involves physical, mental, social, and sexual aspects of development. Students gain an understanding that each aspect of health constantly affects and is affected by the others. Also health is what allows a person to live up to full potential. Health is always changing. One is not at the same level of health today as one was yesterday or will be tomorrow.

The key topics of study are:

1. Health – life and living.
2. The basis of mental health.
3. Human sexuality.
4. Preparation for marriage.
5. Human reproduction.
6. Communicable diseases.
7. Drugs, alcohol and smoking.
8. Substance Abuse

SCIENCE DEPARTMENT

The courses in the Science Department are carefully designed to meet the needs of our students as they prepare for further education or the career of choice. We strive to help students grow in their problem solving skills, analyze data, apply critical thinking, and to value the role of science in a multiplicity of disciplines. Freshmen, sophomores and juniors must take a science course within the Science Department.

Ninth grade course assignment will be determined by student scores on the ninth grade placement rubric.

GEOPHYSICAL SCIENCE HONORS Grade 9 6 Credits

The Geophysical Science honors program is designed for the academically advanced science student to focus on Earth Science, Chemistry and physics principles. The dynamics of the Earth system and the individual sciences of astronomy, geology, meteorology, paleontology and oceanography are investigated. Physical science concepts necessary for the understanding of natural processes are taught through a study of the Earth's subsystems in which they operate. Students enrolled in the honors program should have excellent reading and mathematical skills and should be able to function in a laboratory situation. Emphasis is placed on problem solving, analysis of laboratory data and the interpretation of graphs, models, maps and diagrams. The class meets six times per week including a double laboratory period. This course satisfies the prerequisite for AP Environmental Science.

GEOPHYSICAL SCIENCE A Grade 9 6 Credits

Geophysical Science A is designed to provide the student with a variety of investigative opportunities encompassing astronomy, oceanography, geology, paleontology, meteorology, chemistry, and forces and motion. The course uses a college preparatory laboratory approach enabling the student to learn about the dynamics of the Earth systems and physical concepts necessary for understanding the Earth and the principles that govern it. The class meets six times a week including a weekly double laboratory period and is a prerequisite for AP Environmental Science.

GEOPHYSICAL SCIENCE B Grade 9 5 Credits

Geophysical Science B is designed without a strong emphasis on mathematics for the student who enjoys a hands-on experience of science. This approach provides learning experiences through the gathering of scientific data and its analysis in an integrated laboratory environment. The areas of study include geology, astronomy, oceanography, meteorology, paleontology, chemistry and forces and motion.

BIOLOGY HONORS Grade 9 6 Credits

PREREQUISITE: Algebra I in 8th Grade.

The Biology honors program is designed for the academically accelerated student with exceptional abilities in verbal and mathematical skills. The course is laboratory oriented and takes a problem-solving approach with an emphasis on the biochemical and cellular aspects of biology including heredity and genetics.

BIOLOGY HONORS **Grade 10** **6 Credits**

PREREQUISITE: A grade of 85 in Geophysical Science Honors and Algebra 1.

The Biology honors program is designed for the academically accelerated student with exceptional abilities in verbal and mathematical skills. The course is laboratory oriented and takes a problem-solving approach with an emphasis on the biochemical and cellular aspects of biology including heredity and genetics.

BIOLOGY A **Grade 10** **6 Credits**

PREREQUISITE: A grade of 75 or higher in Geophysical Science A or Geophysical Science Honors.

This course is designed for students preparing for college who has a strong mathematics and reading background. The emphasis of this course is on the diversity of plant and animal life and their relationships to the natural environment. It emphasizes a laboratory approach in biological sciences such as ecology, heredity and genetics, anatomy and physiology, and cellular biology.

BIOLOGY B **Grade 10** **5 Credits**

PREREQUISITE: Geophysical Science A or B

This course is designed for those students who are not scientifically oriented in their future academic or vocational planning. It is a laboratory-based course, which meets five times per week. Areas of study include cell structure and function, plant and animal anatomy and physiology, heredity and genetics, and ecological issues related to today's society.

Emphasis is placed on laboratory skill development and the practical application of biological principles. Organizational skills and study skills are also reinforced. It is recommended for those students who have limited academic proficiency in math.

HUMAN ANATOMY AND PHYSIOLOGY HONORS **Grade 11, 12** **6 Credits**

PREREQUISITE: A grade of 85 or above in Biology Honors. Chemistry can be taken concurrently. This is a challenging course designed for highly motivated students with excellent reading and lab skills who have a strong interest in pursuing a career in the health sciences such as nursing or physical therapy. Emphasis is placed on understanding the anatomical and physiological components of the human body's twelve systems and related systemic diseases. Major dissections of the cat will be in conjunction with each system under study.

HUMAN ANATOMY AND PHYSIOLOGY A **Grade 11, 12** **6 Credits**

PREREQUISITE: A grade of 75 or above in Biology H or A and Chemistry H or A. Chemistry can be taken concurrently.

This course is recommended for students who are interested in the health fields. The course will cover the anatomy and physiology of the human body's twelve systems and related systemic diseases. Cat dissection will be done in conjunction with the study of each system. Students should have an above average reading ability.

CHEMISTRY HONORS **Grades 10, 11** **6 Credits**

PREREQUISITE: Successful completion of the following with a grade of 85 or better: Biology Honors Algebra IIA, or currently enrolled in Algebra IIA. Successful completion of Biology A with a grade of 90 or better and a minimum grade of 85 in Algebra IIA (or concurrently enrolled in Algebra IIA)

The Chemistry Honors course is an accelerated, challenging course designed for the highly motivated student who has a strong interest and background in both mathematics and science. Using a laboratory approach and atomic structure as a basis, students will be engaged in problem-solving activities in the areas of stoichiometry, solution chemistry, thermodynamics and kinetics, equilibrium, acid-base chemistry, and electrochemistry.

CHEMISTRY A **Grade 11** **6 Credits**

PREREQUISITE: A grade of 75 or higher in all A-Level math classes as well as Biology A or H. Algebra IIA or higher may be taken concurrently.

This course is designed to meet the interests of students who are preparing themselves for a career in a science, technical or related field. It is laboratory oriented and covers the traditional areas of atomic structure, stoichiometric relationships, kinetics, thermodynamics, acid-base chemistry, states of matter, equilibrium, and electrochemistry. A TI 30 or equivalent calculator is required.

CHEMISTRY B **Grades 11, 12** **5 Credits**

PREREQUISITE: Biology B, a grade of 75 or higher in prior math courses. Student must have successfully completed Geophysical Science Biology, Algebra 1, and Geometry. Algebra II B can be taken concurrently. Students enrolled in Algebra IIA or higher are not eligible.

This course is designed to meet the needs of the academically motivated student who benefits from support with mathematics and problem solving skills. It is an activity based course which provides learning experiences through the gathering of scientific data and its analysis in an integrated lab environment. It meets five times per week. The areas of study include: motion, vectors, forces, Newton's laws, momentum, torque, harmonics, optics and electricity. This course meets the criteria for all colleges as a laboratory science in the area of chemistry.

A TI 30 or equivalent scientific calculator is required.

INTRODUCTION TO CHEMISTRY AND PHYSICS **Grades 11, 12** **5 Credits**

PREREQUISITE: Geophysical Science, Biology.

This course will focus on students' understanding of the scientific forces that govern their lives.

Students taking this course will explore the practical applications of both chemistry and physics and the interconnection between those subjects and ecology, biology, and geophysical science will be developed. This course will help prepare students to become productive citizens in a society that demands a greater knowledge of science to help make informed decisions. Areas of study will include chemistry and physics concepts in the home, work and marketplace.

PHYSICS HONORS **Grades 11, 12** **6 Credits**

PREREQUISITE: A grade of 85 or higher in Algebra IIA and PreCalculus. PreCalculus may be taken concurrently.

The Physics I Honors course is designed for the student who is highly academically oriented and possesses excellent math skills. Topics to be studied include: motion, forces, energy, momentum, wave phenomenon, electricity, light and optics. Emphasis will be placed both on problem-solving and experimental laboratory work. Students will work both individually and in groups for laboratory assignments and special projects.

A TI 30 or equivalent scientific calculator is required.

PHYSICS A **Grades 11, 12** **6 Credits**

PREREQUISITE: A grade of 75 or higher in Geometry and Algebra 2A. PreCalculus or Advanced Trigonometry may be taken concurrently.

This course is designed for the college preparatory student with strong math skills. Topics of study will include linear motion, kinematics equations, vectors, Newton's laws, energy, momentum, torque, harmonics, optics, and electricity. A strong emphasis is placed on laboratory investigations, problem solving and individual projects. Students must receive the recommendation of previous science teacher. This course meets the criteria for all colleges as a laboratory science in the area of physics.

A TI 30 or equivalent scientific calculator is required.

PHYSICS B**Grade 11, 12****5 Credits**

PREREQUISITE: A grade of 75 or higher in prior math courses. Students must have successfully completed Geophysical Science, Biology, Algebra 1 and Geometry. Algebra IIB can be taken concurrently.

This course is designed to meet the needs of the academically motivated student who benefits from support with mathematics and problem solving skills. It is an activity based course which provides learning experiences through the gathering of scientific data and its analysis in an integrated lab environment. It meets five times per week. The areas of study include: motion, vectors, forces, Newton's laws, momentum, torque, harmonics, optics and electricity. This course meets the criteria for all colleges as a laboratory science in the area of physics.

PHYSICS AND TECHNOLOGY**Grade 12****10 Credits**

PREREQUISITE: Chemistry B, Geometry B or C and teacher recommendation.

This double period course is a conceptual approach to Physics with less emphasis on mathematics. The course is designed for students who would like a practical experience in design, mechanical drawing, construction, testing and evaluation, simulating the research and development techniques currently used in industry. Students are required to complete individual project portfolios.

ENVIRONMENTAL SCIENCE**Grade 11, 12****6 Credits**

PREREQUISITE: A grade of 75 or above in Geophysical A, Biology A, and Chemistry A. A grade of 90 or above in Geophysical B, Biology B and Chemistry B.

Environmental Science focuses on the study of ecosystems, population trends, pollution sources, and available resources. This course is designed to provide students with knowledge and skills that can be used to solve problems affecting our natural environment, to provide relevancy for local and global issues and to introduce students to environmental careers. Major emphasis is placed on environmental effects and their impact on everyday life. Students will explore case studies and current issues and will be actively involved in developing solutions and learning how to educate others about environmental issues. Students will perform field work and conduct research as part of lab activities and long term projects.

ADVANCED PLACEMENT**Grades 11, 12****7 Credits****ENVIRONMENTAL SCIENCE**

PREREQUISITE: Geophysical Science, Biology and Chemistry, one needs to be at Honors and the other two at A-level (can be taken concurrently).

The AP Environmental Science course is designed to be the equivalent of a one semester, introductory college course in environmental science. The goal of the course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

ADVANCED PLACEMENT PHYSICS**Grades 11, 12****7 Credits**

PREREQUISITE: A grade of an 85 or higher Physics H, Algebra II H. PreCalculus may be taken concurrently.

This second level investigative course addresses laboratory experiences and theory that review the basic foundations of Physics. The course extends and broadens the student's understanding of mechanics, thermodynamics, fluid mechanics, electronics, magnetism, modern and nuclear physics. The course will include projects, discussion, and units devised to prepare the students for the Advanced Placement Examination.

CONTEMPORARY WORLD ISSUES **Grades 9, 10, 11, 12** **2 ½ Credits**

Contemporary World Issues offers students the opportunity to discuss current world events as well as the historical and geographic background of world situations. Current magazines, newspapers, and selected readings will provide the resources for the content of this course.

ANTHROPOLOGY **Grades 10, 11, 12** **2 ½ Credits**

This semester elective course deals with the science of man and the development of cultures over time. Included in this course are units on physical anthropology, archaeology, language, and socio-cultural comparative analysis. This course examines the human experience from prehistoric times to the present, from simple cultures to those that are more complex. Cultural patterns, structures, and functions are evaluated. Cultural case studies are used to supplement learned anthropological data and to bring about a better understanding of the behavior of man and society, and the rewards of adaptation.

ADVANCED PLACEMENT PSYCHOLOGY **Grades 11, 12** **5 Credits**

PREREQUISITE: Must achieve a grade of at least an 85 in Honors English or a 93 in an A level English during the previous year. In addition, students must receive the recommendation of the previous social studies teacher.

The AP Psychology course is designed to be the equivalent of a one-semester introductory college course in psychology. The goal of this course is to provide students with the principles, concepts, and methodologies needed to understand and analyze human behavior. Areas of study include psychophysics, learning and memory, motivation and perception, normal vs. abnormal behavior, and the developmental areas of childhood through aging. Activities include laboratory, perceptual, and social experimentation, case studies, survey analysis, all in preparation for the AP Exam.

ADVANCED PLACEMENT EUROPEAN HISTORY **Grades 11, 12** **5 Credits**

PREREQUISITE: Must achieve a grade of at least an 85 in Honors English or a 93 in an A level English during the previous year. In addition, students must receive the recommendation of the previous social studies teacher.

The European History-Advanced Placement course is designed to provide selected students with the analytical skills and factual knowledge necessary to deal with problems and materials in European History. Students will be expected to closely examine a series of problems or topics through readings and college-level textbooks. After an intensive study of the Renaissance, Reformation, Rise of Absolutism, the Enlightenment and the French Revolution and Napoleon, students will closely examine the development of Modern European History. Emphasis will be placed upon Liberalism and Conservatism, the Rise of Nationalism and International and Domestic changes throughout the Nineteenth and Twentieth Centuries. Experiences will be provided that will develop students' abilities to assess historical materials-including relevance to a given interpretive problem, reliability, and importance. Students will learn to evaluate evidence and interpretations of history.

HUMAN BEHAVIOR **Grades 11, 12** **5 Credits**

Human Behavior is a full-year course designed to introduce the fields of psychology and sociology to high school juniors and seniors. The course acquaints students with the scientific method and tools of research used in the study of human behavior. Emphasis is also put on self-awareness and the development of a positive self-concept in preparation for living in an adult society.

ETHICAL STUDIES**Grades 11, 12****2 ½ Credits**

Ethical Studies will allow students the opportunity to study a variety of ethical beliefs and moral actions in relation to the modern world and contemporary problems. Emphasis will be placed on the students' self-examination of human values and the reinforcement of a positive self-concept. An in-depth analysis of the Holocaust will allow students to examine issues of genocide, racism and prejudice. A major focus of the course is prejudice reduction. Students will be encouraged to develop ideas to encourage social justice in the United States and in the world.

THE VIETNAM ERA**Grades 11, 12****2 ½ Credits**

This semester course is designed to give students an understanding of a period in world history from 1945 to 1975, which has come to be known as the Vietnam era. The major objectives of the course will be student evaluation of the issues of the period; an understanding of the war, its causes, execution, immediate results, and its long-term economic, political and military impact on the United States. The American domestic political and social climate, focusing on the counter-culture, anti-war movement, and treatment of veterans, will also be examined. At the culmination of the course an in-depth comparison will be made between the Vietnam Era and current U.S. involvement in the Middle East and Asia.

CERAMICS IV **Grades 11, 12** **2 ½ Credit**

PREREQUISITE: Ceramics III and portfolio review

This class will allow the student to continue to explore the medium of ceramics and to focus on applying a high level of personal symbolism and design to their own work. Glaze will be mixed from recipes; students will be responsible for loading and unloading the electric kiln and will experience alternative firing techniques such as raku or pit firing.

3 D DESIGN **Grades 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Foundations of Art

Students will use a variety of materials ranging from paper, wood, wire, stone, and environmental based materials. With each project students will research and study both historical and contemporary artists who work three-dimensionally. Students will be required to keep a sketchbook for notes, sketches and weekly homework assignments.

PRINTMAKING **Grades 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Foundations of Art

This is a course designed to provide students with a sound technical and conceptual base from which to explore image making through various print processes. The course covers mono-printing, relief printing, intaglio, screen-printing and lithography. The elements and principles of design will be emphasized to build each student's visual literacy. Students will be required to keep a sketchbook for notes, research, sketches and weekly homework assignments.

INTERIOR DESIGN **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Foundations of Art

The student will learn that aesthetics and function form the basis of interior design, while applying the principles of design to interior space planning. A range of concerns to be studied includes color and design theory and application, space planning, selection of furniture and its history.

INTRODUCTION TO PHOTOGRAPHY **Grades 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Foundations of Art

This course will introduce students to the art of photography and the essential techniques for this art form. The focus of this course will include the history of photography, technical fundamentals, camera functions, computer printing skills and composition. Contemporary and historical photographers will be researched and discussed. Students will be required to keep a binder for notes, sketches, and homework assignments.

PHOTOGRAPHY II **Grades 10, 11, 12** **2 ½ Credits**

PREREQUISITE: Introduction to Photography

This course is for students interested in furthering their knowledge of photography. The emphasis of this course is placed on expanding the creativity of the individual student. Students will practice advanced camera and computer printing techniques as well as compose a photography portfolio. Contemporary and historical photographers will be researched and discussed. Students will be required to keep a binder for notes, sketches, and homework assignments.

DIGITAL PHOTOGRAPHY**Grades 11, 12****5 Credits**

PREREQUISITE: Photography II and portfolio review

This course builds on the foundations established in Photography I. Students will be introduced to the digital camera, digital editing programs and advanced lighting techniques. Students will be required to create a fine art portfolio as well as a series of images including still life, portraiture, product shots and fashion. This course is designed for students who are highly motivated, able to work independently and who have a strong interest in pursuing art and photography as a major in college. Students will be required to keep a sketchbook for sketches, notes and homework assignments.

GRAPHIC DESIGN**Grades 11, 12****5 Credits**

PREREQUISITE: Two years of high school art and portfolio review

This course will introduce students to the field of commercial art. The focus of this course is on the use of the computer for visual communication. Course studies will include layout and design concepts using illustration, digital photography and typography. This course is designed for students who are highly motivated, able to work independently and who have a strong interest in pursuing art as a major in college. Students will be required to keep a sketchbook for sketches, notes and homework assignments

PORTFOLIO DEVELOPMENT**Grades 11, 12****5 Credits**

PREREQUISITE: Art Theory and Practice and/or Drawing & Painting and portfolio review

The major focus of this course will be on portfolio development with intensive emphasis placed on observational drawing, the student's skill development and style. Various historical, social, and cultural influences which have generated artistic accomplishments throughout the ages and which continue to shape contemporary art will be explored in this course. Summer drawing projects required.

ART STUDIO**Grade 12****5 Credits**

PREREQUISITE: Portfolio Development and teacher recommendation

Art Studio is a mastery level course. This class is a combination of class assignments and independent portfolio development. Students will be expanding on their prior years of knowledge. They will demonstrate significant personal expression through risk-taking and decision-making. Summer drawing projects required.

WORLD LANGUAGES

As technology, communication and business internationalize many aspects of our lives, mastering a second language is becoming more and more valuable. The study of a world language is in keeping with the finest tradition of a liberal arts education. Recognizing this fact, many colleges require a minimum of two or three sequential years of world language study in high school. The State of New Jersey has mandated a minimum of 5 credits (one year) of world language study as a high school graduation requirement.

At Roxbury High School a student may elect to study French, German or Spanish. A four-year sequence is available in grades 9-12 for all languages. Honors level begins in the second year for all languages. There is an Advanced Placement course for each language as well.

FRENCH I **Grades 9, 10, 11, 12** **5 Credits**

This course is designed to introduce the student to basic vocabulary, speech patterns, and structure of the French language. Emphasis is placed on communication through reading, speaking and writing. The student will also develop an appreciation for the culture of French speaking countries.

FRENCH II HONORS **Grades 9, 10, 11, 12** **5 Credits**

PREREQUISITE: Must achieve a grade of at least a 93 in French I

This level is designed for students who have demonstrated outstanding aptitude, interest, and achievement in French skills, as well as the motivation and self-discipline to engage in serious study.

The objective of this course is to increase the student's ability to understand spoken French and to develop speaking, reading, and writing skills. These skills will be reinforced through challenging oral and written assignments. In addition, students will continue to study and appreciate the culture, geography, and history of France in greater depth.

FRENCH II **Grades 9, 10, 11, 12** **5 Credits**

PREREQUISITE: French I

The objective of French II is to increase the student's ability to understand spoken French and to develop speaking, reading and writing skills. Emphasis is placed on vocabulary, idiomatic expressions, and speech patterns. The student will continue to study and appreciate the culture, geography and history of France.

FRENCH III HONORS **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Must achieve a grade of 85 in French II Honors or 93 in French II with teacher recommendation.

This course is designed for students who have demonstrated outstanding aptitude, interest, and achievement in French language skills, as well as motivation and self-discipline. The objective of the course is to further refine and develop communication skills, both oral and written. This will be accomplished through challenging verbal and written assignments and activities. The cultural aspects of the language will be interwoven in the course of study.

FRENCH III **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: French II

The objective of this course is to further refine and develop communication skills, both oral and written. The grammatical concepts learned in French 1 and 2 are reviewed and new structures are introduced. The cultural and geographical aspects of the language are interwoven throughout the course of study.

FRENCH IV HONORS **Grades 11, 12** **5 Credits**
PREREQUISITE: Must achieve a grade of 85 in French III Honors or 93 in French III with teacher recommendation.

This level is designed for those students who have demonstrated outstanding achievement, aptitude, and interest in French language skills, as well as the motivation and self-discipline to engage in serious study.

This course is designed to improve and refine listening, speaking, reading, and writing communicative skills. The students will study selected cultural topics, periods of French history, and styles of art.

ADVANCED PLACEMENT FRENCH LANGUAGE **Grade 11, 12** **5 Credits**
PREREQUISITE: Must achieve a grade of 85 in French IV Honors or 93 in French III Honors with teacher recommendation.

This course covers the equivalent of a third year college course in advanced composition and conversation. It stresses verbal skills, composition, and grammar. This course emphasizes the use of French for active communication. Students will be expected to comprehend formal and informal spoken French, compose expository passages, express ideas orally with accuracy and fluency, and read easily and accurately newspaper and magazine articles and modern French literature. French will be the sole language of communication. Students in this course will be preparing for the College Board Advanced Placement French Language Exam.

GERMAN I **Grades 9, 10, 11, 12** **5 Credits**

This course is designed to give the student a basic knowledge of German grammar and vocabulary and to establish correct habits in speaking, reading, and writing. It also introduces the student to German geography and culture. Simple conversations are practiced and free responses in the language are encouraged to enable the beginning student to use the language as much as possible.

GERMAN II HONORS **Grades 9, 10, 11, 12** **5 Credits**
PREREQUISITE: Must achieve a grade of 93 in German I with teacher recommendation.

This level is designed for those students who have demonstrated outstanding achievement, aptitude, and interest in German language skills, as well as the motivation and self-discipline to engage in serious study. These skills will be reinforced through challenging and in depth oral and written activities and assignments.

This course is a continuation of German I with emphasis on speaking and reading skills and concentration on the sentence structure of the German language. The student begins to develop greater fluency in these areas through intensive drills and conversation exercises.

GERMAN II **Grades 9, 10, 11, 12** **5 Credits**
PREREQUISITE: German I

This course is a continuation of German I with emphasis on speaking and reading skills and concentration on the sentence structure of the German language. The student begins to develop greater fluency in these areas through intensive drills and conversation exercises. Supplement materials are used to enhance and deepen the understanding of German culture and modern living.

GERMAN III HONORS **Grades 10, 11, 12** **5 Credits**
PREREQUISITE: Must achieve a grade of 85 in German II Honors or 93 in German II with teacher recommendation.

This level is designed for those students who have demonstrated outstanding achievement, aptitude, and interest in German language skills, as well as the self-discipline to engage in serious study.

The emphasis in German III is on speaking, listening, and writing to enable the students to acquire practical, useful skills to function in a German environment. Important aspects of grammar will be reviewed and strengthened. The skills developed will be reinforced with challenging and in depth oral and written assignments and activities. The language will also be enhanced with basic works of German literature.

GERMAN III **Grades 10, 11, 12** **5 Credits**
PREREQUISITE: German II

The emphasis in German III is on speaking, listening, and writing to enable the students to acquire practical, useful skills to function in a German environment. Important aspects of grammar will be reviewed and strengthened. The language will also be studied through basic works of German literature.

GERMAN IV HONORS **Grades 11, 12** **5 Credits**
PREREQUISITE: Must achieve a grade of 85 in German III Honors or 93 in German III with teacher recommendation.

This level is designed for those students who have demonstrated outstanding achievement, aptitude, and interest in German language skills, as well as the motivation and self-discipline to engage in serious study.

This course is designed to improve and refine the communication skills of listening, speaking, reading, and writing. The focus will be on day-to-day communication. The students will study selected cultural topics. Reinforcement of language skills will be accomplished by giving students challenging and in depth oral and written activities and assignments, as well as a more in-depth study of German literature.

ADVANCED PLACEMENT GERMAN LANGUAGE **Grades 11, 12** **5 Credits**
PREREQUISITE: Must achieve a grade of 85 in German III Honors or 93 in German III with teacher recommendation.

This course emphasizes the use of German for active communication and seeks to improve and enhance the skills of speaking, understanding, writing, and reading. This course covers the equivalent of a third year college course in advanced composition and conversation. Students will be expected to understand spoken German in both formal and conversational situations, read newspapers and magazine articles, contemporary fiction, and other non-technical writings. Students in this course will be preparing for the College Board Advanced Placement German Language Exam.

SPANISH I A **Grades 9, 10, 11, 12** **5 Credits**

This course is designed to introduce the student to the four basic skills of language study: listening, speaking, reading, and writing. Much emphasis is placed on communication. The student will develop an appreciation for the culture of Spanish speaking countries.

SPANISH I B **Grades 9, 10, 11, 12** **5 Credits**

The Spanish IB student will be introduced to basic pronunciation, vocabulary, grammar, and culture. Emphasis is placed on communication and language skill building.

SPANISH II HONORS **Grades 9, 10, 11, 12** **5 Credits**

PREREQUISITE: Spanish I must achieve a grade of 93 with teacher recommendation.

This level is designed for those students who have demonstrated outstanding achievement, aptitude, and interest in Spanish language skills, as well as the motivation and self-discipline to engage in serious study.

This course will continue to develop the four basic skills of language learning: listening, speaking, reading, and writing continue to be developed. The student will expand vocabulary, increase ability to communicate orally and in writing, improve comprehension of written and spoken language, and expand knowledge and appreciation of Hispanic culture. These skills will be reinforced through challenging and in depth oral and written activities and assignments.

SPANISH II A **Grades 9, 10, 11, 12** **5 Credits**

PREREQUISITE: Spanish I (middle school) grade of 85; Spanish IA grade of 80.

This course will continue to develop the four basic skills of language learning, listening, speaking, reading, and writing continue to be developed. The student will expand vocabulary, increase ability to communicate orally and in writing, improve comprehension of written and spoken language, and expand knowledge and appreciation of Hispanic culture.

SPANISH II B **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Spanish IB with teacher recommendation.

Grammar, vocabulary, and speaking skills build upon the previous year's accomplishments. Active communication is emphasized.

SPANISH III HONORS **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Must achieve a grade of 85 in Spanish II Honors or 93 in Spanish IIA with teacher recommendation.

This level is designed for those students who have demonstrated outstanding achievement, aptitude, and interest in Spanish communication, as well as the motivation and self-discipline to engage in serious study.

New grammatical concepts are introduced for use in advanced speaking and writing. The culture and history of Spain are studied, concentrating on art, geography, and history. Readings complement and expand cultural studies. Emphasis is placed on improving comprehension, reading and writing skills, and increased oral fluency. These skills will be reinforced through challenging and in depth oral and written activities and assignments.

SPANISH III A **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Must achieve a grade of at least an 80 in Spanish IIA

The grammatical structure learned in Spanish I and II are reviewed thoroughly and new concepts are introduced for use in advanced speaking and writing. The culture and history of Spain are studied, concentrating on art, geography, and history. Readings complement and expand cultural studies. Emphasis is placed on improving comprehension, reading and writing skills, and increased oral fluency.

SPANISH III B **Grades 10, 11, 12** **5 Credits**

PREREQUISITE: Spanish II B

Spanish vocabulary, grammar, culture, listening and speaking skills are built upon the previous year's accomplishments in this slower paced class.

SPANISH IV HONORS**Grades 10, 11, 12****5 Credits**

PREREQUISITE: Must achieve a grade of 85 in Spanish III Honors or 93 in Spanish IIIA with teacher recommendation.

This level is designed for those students who have demonstrated outstanding achievement, aptitude, and interest in Spanish language skills, as well as the motivation and self-discipline to engage in serious study.

Spanish IV Honors is designed to provide advanced students the opportunity to review all grammatical concepts, improve speaking skills, expand reading comprehension, enhance writing ability, and refine listening comprehension ability. The focus will be on day-to-day communication. The student will also study selected Latin American topics. The language skills will be reinforced through challenging oral and written activities and assignments.

SPANISH IV**Grades 10, 11, 12****5 Credits**

PREREQUISITE: Spanish III

Spanish IV is designed to provide advanced Spanish students the opportunity to review all grammatical concepts, improve speaking skills, expand reading comprehension, enhance writing ability, and refine listening comprehension ability. The focus will be on day-to-day communication. The student will also study selected Latin American topics.

ADVANCED PLACEMENT SPANISH LANGUAGE**Grade 11, 12****5 Credits**

PREREQUISITE: Must achieve a grade of at least an 85 in Spanish IV honors with teacher recommendation.

This course covers the equivalent of a third year college course in advanced composition and conversation. It stresses oral skills, composition, and grammar. This course emphasizes the use of Spanish for active communication. Students will be expected to comprehend formal and informal spoken Spanish, compose expository passages, express ideas orally with accuracy and fluency, and read easily and accurately newspaper and magazine articles and modern Hispanic literature. Spanish will be the sole language of communication. Students in this course will be preparing for the College Board Advanced Placement Spanish Language Exam.

SCHOOL AND COMMUNITY PROGRAM

SERVICE LEARNING

Grades 10, 11, 12

5 credits

The Roxbury High School Service Learning program provides Special Education students with the opportunity to gain work related skills in a supervised/semi-supervised environment. Included are building skills related to responsibility, commitment, self-initiation and self-esteem.

SPECIAL SERVICES

Roxbury High School offers a range of placement options and programs designed to meet the academic, social and emotional needs of the district's high school aged classified students. The services of a full time Child Study Team - including a psychologist, learning disability consultant and school social worker are available. Individual Child Study Team members develop and coordinate the student's program and act as a liaison between school and parent.

SHARE TIME OCCUPATIONAL PROGRAMS

20 credits

Grades: 11 and 12

Morris County School of Technology provides students the opportunity to receive daily occupational training as part of their junior and/or senior high school program. Academic subjects are taken at the home school. Students are then transported to Morris County School of Technology for specialized occupational training.

Minimum Requirements:

1. Be enrolled as a 11th or 12th grader in the home high school. Tenth graders may be considered for occupational courses on an individual basis.
2. Have an acceptable academic, attendance and behavior record in the home school.
3. File an application signed by the parent or guardian and the home school guidance counselor.
4. Have a sincere interest in the program.
5. Possess sufficient motivation to succeed in the chosen program.
6. Have sufficient maturity to work in a shop setting.

Academic Infusion Program:

Applications of Mathematics and/or Science may be experienced and credits earned in specific courses. Students receive 15 credits for their occupational course and five credits for infused math and/or science.

*If no credits are given for math or science, students receive 20 credits. All courses will be offered both A.M. and P.M.

MATHEMATICS AND SCIENCE INFUSION PROGRAM

	Credit	Awarded
Program	Credits	Academic Area
Auto Body Repair	5	Year 1 - Science Year 2 - No academic credit
Auto Body Repair (special needs)	5	Year 1 – Science Year 2 – No academic credit
Auto Service Tech I and II	5	Year 1 - Science Year 2 - Math
Building Construction (special needs)	5	One year Math for each year of participation
Building/Grounds (special needs)	5	One year Math for each year of participation
Carpentry	5	One year Math for each year of participation
Computer Drafting&Graphics Studio	5	Year 1 - Math Year 2-No Academic Credit
Cosmetology	5	Year 1 - No academic credit Year 2 - Science
Electrical Trades	5	Year 1 - Science Year 2 - Math
Food Services (special needs)	*0	Year 1 & 2 – No Academic Credit
Plumbing	5	Year 1 - Science Year 2 - Math
Retail/Supermarkets (special needs)	5	One year Math for each year of participation
Welding	5	One year Science for each year of participation

SHARE TIME PROGRAMS

AUTO BODY/COLLISION REPAIR

Grades: 11-12

Within this two-year program, students will study basic auto body repair, painting, welding, restoration, panel replacement, frame damage, repair, custom painting and the use of all tools and materials. Graduates are employed as technicians, painters and apprentices.

AUTOMOTIVE SERVICE TECHNOLOGY I and II

Grades: 11-12

To meet the needs of a changing technology, this exciting two-year program offers students the opportunity to master the needed skills to pass the Automotive Service Excellence Certification (ASE) Examinations. Training by ASE certified instructors is offered in basic automotive systems, electrical systems, braking systems, engine performance, chassis and steering, heating and air conditioning systems, computerized engine controls, selected shop skills and ASE test preparation.

CARPENTRY

Grades: 11-12

Within this one- or two-year program, students are introduced to transit and concrete wall forms, column forms, step and landing forms. Framing includes floor, wall and roof framing and common rafters. Advanced instruction includes stair building, exterior and interior trim and more complex roof frames such as hip, valley and jack rafters. Students develop a thorough understanding of the aspects of residential home construction and an understanding of basic architectural principles. Graduates have started their own businesses, worked with local contractors, entered union apprenticeships or pursued a post-secondary education.

COMPUTER DRAFTING & GRAPHICS STUDIO

Grades: 11-12

In this one- or two-year program, students transform architectural and engineering designs into finished drawings using state of the art computer equipment and the latest software releases. The first year of the program includes the basic concepts, commands and operations of the AutoCAD® software, and introduces the student to advanced techniques such as 3D Design. An optional second year is available for students who wish to pursue skills in advanced customization and photo-realistic graphics and animation techniques utilizing 3D Studio Design software.

COSMETOLOGY I and II

Grades: 11-12

The goal of this two-year program is for graduates to successfully pass the state licensing examination and become employed in the field. The units of instruction and clinic are designed to meet licensing standards of the Board of Beauty Culture. Future beauticians and barbers experience instruction in hair care, styling, perms, manicures, facials, facial massage, waxing, coloring and barbering. Second year students operate a clinic in which customer relations, shop management and professionalism are stressed.

ELECTRICAL TRADES

Grades: 11-12

The Electrical Trades program is a two-year program that covers Telecommunication, computer installations, low voltage wiring, fire and burglar alarm systems, as well as residential, commercial and industrial wiring. All of these trades overlap in scope and basic training and offer an excellent opportunity to obtain employment. Algebra is a requirement in order to pursue entrance into the union apprenticeship program.

PLUMBING

Grades: 11-12

Blueprint reading, design, layout, troubleshooting, repair, and installations are included as units of study. Students in this one- or two-year program learn plumbing codes, principles and practices concerning plumbing and heating in residential environments. In the laboratory, students will receive hands-on training in copper sweating, cutting and threading, cast iron, PVC and ABS work, underground drainage waste, vent systems and mechanical piping of gas fired heating systems. Design and installation of fixtures for bathrooms, kitchens and hot water heaters is included.

WELDING TECHNOLOGY

Grades: 11-12

This two-year program allows high school students to acquire basic welding skills in the first year, which is a prerequisite for the second year. In the second year, students will have opportunities to pursue: the NOCTI examination and AWS Entry-Level Welders' certification.

In the first year of this program, students are introduced to: Plasma Arc Cutting (on aluminum, stainless and low carbon steel), Shielded Metal Arc Welding (fillet and V-groove welds on low carbon steel), Gas metal Arc Welding (fillet welds on low carbon steel), Oxy/fuel gas cutting and introduction to print interpretation.

During the second year, students will work with the Gas Tungsten Arc Welding (welds on stainless steel and aluminum), advanced Shielded Metal Arc Welding (V- grooves with backing strips), Gas Metal Arc Welding (groove welds on low carbon steel), Flux-core Arc Welding (fillet welds on low carbon steel), Plasma Arc Cutting and print interpretation.

SPECIAL NEEDS PROGRAMS

The Morris County School of Technology is committed to serving students with special needs. Accordingly, five programs are dedicated to meet these needs. The five programs respond to industry needs and are designed to equip the student with the skills he/she will need for gainful employment after graduation. These programs are available to classified students enrolled in public secondary schools who are 15-20 years of age. A complete set of Child Study Team records must accompany the application.

Applications are available from the local high schools. Any additional questions may be directed to (973) 627-4600 Ext. 238.

AUTO BODY/COLLISION REPAIR

Grades: 10-12

Within this two-year program, students will study basic auto body repair, painting, welding, restoration, panel replacement, frame damage, repair, custom painting and the use of all tools and materials. Graduates are employed as technicians, painters and apprentices.

BUILDING CONSTRUCTION

Grades: 10-12

This program provides hands-on training in all phases of the construction industry. Instruction begins with the use of hand and power tools. Units of study include carpentry, electrical wiring, plumbing, sheet rocking and roofing. Upon completion, students may elect to pursue advance training in one specific trade area.

BUILDING & GROUNDS MAINTENANCE SERVICES

Grades: 10-12

This course includes the study of interior and exterior maintenance of a building and the surrounding grounds. Students gain knowledge of basic electricity, plumbing, carpentry, landscaping, painting, general cleaning and maintenance.

FOOD SERVICES

Grades: 10-12

The program is designed for the special needs learner who may indicate an interest in Culinary Arts but lacks the requisite academic skills. It will specifically prepare students for employment in food service occupations in hospitals, corporate cafeterias, banquet halls, nursing homes, hotels and restaurants. Students are trained in basic food sanitation, preparation and service. Occupational training is for entry level positions in most kitchens.

RETAIL/SUPERMARKET CAREERS

Grades: 10-12

This hands-on program trains students for all of the jobs found in retailing careers. Units of instruction include cashier, produce, baking, sales techniques, marketing, customer service and grocery. Students operate the supermarket/retail outlet and produce a salad and soup bar and marketable products and services. A wide range of employment is available within the many supermarket and retail stores in the County.

NOTES

