

# ROXBURY HIGH SCHOOL

One Bryant Drive  
Succasunna, NJ 07876

## PROGRAM OF STUDIES 2016-2017

### Administration – Roxbury Township Schools

Superintendent of Schools.....	Mrs. Loretta Radulic
Assistant Superintendent for Curriculum and Instruction.....	Mr. Charles Seipp
Director of Human Resources.....	Mrs. Maryann Gibbs
Business Administrator - Interim.....	Mr. Mark Kenny
Assistant Business Administrator.....	Ms. Megan Pepe
Community School/Community Relations Coordinator.....	Ms. Ann Rhodes
Supervisor Applied Science Pre K - 5.....	Ms. Kelly Curtiss
Supervisor Humanities Pre K - 5.....	Ms. Jessica Fessock
Supervisor English 6 - 12.....	Dr. Marc Cicchino
Supervisor Math 6 - 12.....	Mrs. Jane Feret
Supervisor Science 6 - 12.....	Ms. Denise Glenn
Supervisor Social Studies 6 - 12.....	Mrs. Patricia Sikorski
Director Special Services.....	Mrs. Patricia Hovey
Supervisor Special Services K - 12.....	Mr. Rick Engle
Supervisor World Language (Pre K-6)/Special Education (Pre K-12).....	Mr. Joel DeBarros
Supervisor of Technology.....	Ms. Teresa Rehman

### Administration – Roxbury High School

Principal.....	Mr. Jeffrey W. Swanson
Assistant Principal.....	Mr. Jon Deeb
Assistant Principal.....	Mrs. Susan Simonet
Director of Athletics & Student Activities.....	Mr. Stuart Mason
Director of Guidance.....	Mrs. Emilie Bacchetta
Business Lead Teacher	
Family and Consumer Sciences Lead Teacher	
Industrial Arts & Technology Lead Teacher.....	Mrs. Pam Mandracchia
Performing Arts Lead Teacher.....	Ms. Lorraine Lynch
Physical Education/Health Lead Teacher.....	Mr. Kevin Poggi
Visual Arts Lead Teacher.....	Mrs. Joann Hughes
World Language Lead Teacher.....	Ms. Judy Hernandez

### Counseling Staff

Mrs. Carissa Barbolini	School Counselor	Ext. 1245
Mrs. Gerri Harrington	School Counselor	Ext. 1243
Mrs. Jennifer Kenny	Student Assistance Counselor	Ext. 1242
Mrs. Kelly Korovich	School Counselor	Ext. 1248
Ms. Stefanie SanEmeterio	School Counselor	Ext. 1246
Ms. Christina Schroeder	School Counselor	Ext. 1236

## CONTENTS

	Page
Letter to Students	3
School Counseling and Guidance Program	4
Graduation Requirements	6
Required Courses	8
Grade 9 Placement Criteria	9
Credit Attainment Pathways	10
Admission to College	11
<b>Course Descriptions:</b>	
Business and Marketing Education	12
English	16
English as a Second Language	22
Family and Consumer Sciences	23
Industrial Arts and Technology	25
Mathematics	27
Performing Arts	33
Physical Education/Health	36
Science	39
Social Studies	45
Visual Arts	50
World Language	54
School and Community Program	58
Morris County School of Technology	59

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, as well as the requirements for most colleges, post-secondary schools and careers, prior to completing the selection process 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, test scores, feedback from peers and teachers, and life/work experiences?
5. What courses will challenge my abilities?
6. What electives will round out my program, develop my talents and help me to 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.

Sincerely,

Your Counselors

## **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 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; 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 where you may sign up for an appointment. At any time throughout the year, appointments may be made before and after school or during your VIP or lunch block. A pass must be obtained and presented to your teacher before reporting for a conference.

### **4-2C Guidance Plan (4 years to 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 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 guide you with selecting your courses, exploring career interests, preparing for a job, and registering 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 January, 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, a student may be required to choose between courses when a conflict arises.

## **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. Once a schedule has been set, schedule changes will not be made unless a student has a course level change.**

## **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, social studies, and world languages). You should select the highest level college preparatory course 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 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 units.
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 our Cooperative Education course, Morris County School of Technology, 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.

## 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.

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

**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 Theory	20 credits
.5 years Financial Literacy	<u>2.5 credits</u>
	102.5 - 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.

For a student to be eligible for graduation from Roxbury High School, they must pass a state endorsed assessment (in addition to the required courses). A student must demonstrate proficiency in **one** of the criteria from each column in the chart below.

ONE of the criteria in each column below:	
English Language Arts	Mathematics
PARCC ELA Grade 9 $\geq$ 750 (Level 4) <i>or</i>	PARCC Algebra I $\geq$ 750 (Level 4) <i>or</i>
PARCC ELA Grade 10 $\geq$ 750 (Level 4) <i>or</i>	PARCC Geometry $\geq$ 725 (Level 3) <i>or</i>
PARCC ELA Grade 11 $\geq$ 725 (Level 3) <i>or</i>	PARCC Algebra II $\geq$ 725 (Level 3) <i>or</i>
SAT Reading $\geq$ 400 <i>or</i>	SAT Math $\geq$ 400 <i>or</i>
ACT Reading or ACT PLAN Reading $\geq$ 16 <i>or</i>	ACT or ACT PLAN Math $\geq$ 16 <i>or</i>
Accuplacer Write Placer $\geq$ 6 <i>or</i>	Accuplacer Elementary Algebra $\geq$ 76 <i>or</i>
PSAT 10 Reading or PSAT/NMSQT Reading $\geq$ 40 <i>or</i>	PSAT 10 Math or PSAT/NMSQT Math $\geq$ 40 <i>or</i>
ACT Aspire Reading $\geq$ 422 <i>or</i>	ACT Aspire Math $\geq$ 422 <i>or</i>
ASVAB-AFQT Composite $\geq$ 31 <i>or</i>	ASVAB-AFQT Composite $\geq$ 31 <i>or</i>
Meet the Criteria of the NJDOE Portfolio Appeal	Meet the Criteria of the NJDOE Portfolio Appeal

### **Honors and Advanced Placement Courses:**

Honors and/or Advanced Placement courses are designed to provide you with an academic challenge that exceeds those provided in other college preparatory courses. In addition, this coursework provides an 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.

### **SAT and ACT Preparation**

Roxbury High School provides NAVIANCE SUCCEED – FAMILY CONNECTIONS to all students with the opportunity to prepare for the SATs and ACTs by using the online program PrepMe and Naviance Test Prep. Both programs are an adaptive learning platform for test preparation that diagnoses each student's individual strengths and weaknesses and creates a personalized study plan based on the student's needs and timelines. PrepMe and Naviance Test Prep use skills-based instruction to help students learn independently. The courses are aligned to the standards set forth by the test makers, and the lessons and quizzes coach students through test simulations to ensure preparation for test day while developing skill proficiency to support college readiness.

#### Key Benefits:

- Adapts to students strengths and weaknesses.
- Focuses on mastering skills, not just tips and tricks.
- Skills-based instruction and standards-based reporting.

**Naviance Test Prep** covers all of the concepts and skills tested on the SAT, including the essay. This course is targeted for the 9th, 10th, 11th, and 12th grades.

- 918 Flash Cards
- 577 Lessons
- 1525 Practice Questions
- 1314 Practice Test Questions
- 6 Practice Tests

**PrepMe for the ACT Curriculum** covers all the concepts and skills tested on the ACT, including the essay. This course is targeted for the 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grades.

- 84 lessons
- 75 Quizzes
- Diagnostic test to gauge strengths and weaknesses.
- 1 full-length online practice ACT test
- Supports up to 4 practice test from The Real ACT Prep Guide (requires separate purchase)

With PrepMe and Naviance Test Prep, every student has the opportunity to increase his/her standardized test scores.

## REQUIRED COURSES

### Grade 9 Courses:

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

**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 Program of Studies.

### Grade 10 Courses:

1. English II
  2. US History I
  3. Biology
  4. Geometry
  5. Physical Education/ Driver 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 Program of Studies .

### 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 if not taken previously

**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 Program of Studies.

### Grade 12 Courses:

1. English IV
2. Physical Education/Health 12
3. Visual and/or Performing Art if not taken previously
4. Financial Literacy if not taken previously
5. Practical Art if not taken previously
6. 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 Program of Studies.

## Grade 9 Placement Criteria

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

- Reading and writing comprehension assessments
- Skill Based Data Rubric – grade 8
- January Benchmark Assessment (May Final Benchmark)
- Pupil Grades – grade 8 – semester 1 (semester 2 upon completion)

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

- End of Year Assessment (7<sup>th</sup> and 8<sup>th</sup>)
- Algebra Readiness Test (end 7<sup>th</sup> and 8<sup>th</sup>)
- Skill Based Data Rubric—grade 8
- Midyear Assessment grade 8
- Pupil Grades – grade 8 - semester 1 (semester 2 upon completion)
- Linear Functions Assessment

**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 Assessments (2) - grade 8 – MP 1 and 2
- Pupil Grades – grade 8 (first two marking periods)
- ASK 8 Science - upon receipt

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

- Benchmark Assessment: Grades 7 and 8
- Grades: final grade 7; 1<sup>st</sup> semester grade 8
- Reading and Writing comprehension assessment: grades 7 & 8
- Skills Based Data Rubric: grade 7 & 8

For purposes of placement into grade 9 core courses, objective criteria (tests, benchmark tests, etc.), are considered equally with subjective criteria (student grades). All data will be recorded in a placement criteria data base that will be used to determine the appropriate placement of students into 9<sup>th</sup> grade courses.

## CREDIT ATTAINMENT PATHWAYS

The wide variety of students' interests, motivations and responses to education makes it clear that no single approach to learning is best for all students. Learning takes place in a variety of ways, under a variety of circumstances; it is a highly individualized process.

If we are to approach our goal of providing a school which is responsive to the needs and learning styles of all students, we must make available a practical variety of education alternatives. **Independent Study**, **Senior Option**, and **College Option** are programs designed to afford a student the opportunity to pursue areas of study which are beyond the scope of curricular offerings. Through the College Option program, students may pursue coursework via online programs of study and/or via a local college or university.

Students interested in these programs must realize that they require a great deal of initiative and responsibility.

### ELIGIBILITY

The **Independent Study Program** is open to any student in grades nine through eleven who:

1. has demonstrated sufficient academic proficiency, in the judgment of the Independent Study Committee, to assure that commitment to Independent Study would not jeopardize his/her regular class work.
2. is on pace to graduate and has not failed any subjects the year before initiating the study.
3. is interested in pursuing a program of study, an internship, or an experience that extends beyond the school-offered curriculum.

The **Senior Option Program** is open to any student in grade twelve who:

1. has demonstrated sufficient academic proficiency, in the judgment of the Senior Option Committee, to assure that commitment to Senior Option would not jeopardize his/her regular class work.
2. is on pace to graduate and has not failed any subjects the year before initiating the study.
3. is interested in pursuing a program of study, an internship, or an experience that extends beyond the school-offered curriculum.

The **College Option Program** is open to any student in grade nine through twelve who:

1. has demonstrated sufficient academic proficiency, in the judgment of the College Option Committee, to assure that commitment to College Option would not jeopardize his/her regular class work.
2. is on pace to graduate and has not failed any subjects the year before initiating the study.
3. is interested in pursuing a college course that extends beyond the school-offered curriculum.

A student interested in pursuing any of these programs should consult with his or her school counselor.

## 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 websites 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 an English Elective course 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 world language for admission, with many requiring three years. Students who plan to major in world 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, grade point average, and class rank.
3. Scores on the SAT and/or ACT.
4. Recommendations of your guidance counselor and teachers.
5. Extra Curricular Activities (clubs, sports, work, volunteer, etc.)
6. Community Service

## **BUSINESS AND MARKETING EDUCATION**

The RHS Business and Marketing Department offers state of the art and dynamic courses that everyone can enjoy. There are four different course sequences that will assist students to better understand how to be successful in their chosen career paths. Explore your areas of interest in the following course sequences: General Business, Marketing, Business Technology, and Accounting. Mix them up or follow the sequence, the choice is up to you!

### **GENERAL BUSINESS**

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

Learn how the business world works, how money moves through the economy, and how to make critical decisions that can affect you on an everyday basis. Participate in various online projects that allow you to virtually visit US government agencies and various countries. Tie it all together in this introductory business course.

#### **COMMUNICATING FOR SUCCESS                      Grades 10, 11, 12                      2.5 Credits**

RHS Business courses are for everyone! Communicating effectively is the single most important attribute you can develop on your road to a successful career. Whether your focus is in the arts, humanities, or sciences, you will need to convince others of your viewpoints. This course will teach you how to transmit information, and to ensure that every message is properly received.

#### **INTERNATIONAL BUSINESS                      Grades 10, 11, 12                      2.5 Credits**

Delve into the global marketplace. Learn how natural resources affect imports and exports. Analyze trade agreements between various countries. Compare a variety of cultural customs and familiarize yourself with many parts of the world. Appreciate what it takes to be a true 21st century citizen.

#### **ENTREPRENEURSHIP                      Grades 10, 11, 12                      2.5 Credits**

Do you want to own your own business someday? This course helps you understand what it takes to build your own business and how to keep it thriving. Several mini-projects introduce you to business owner's concerns and then you will apply this information to build your own virtual business at a US location of your choice.

#### **BUSINESS LAW                      Grades 10, 11, 12                      2.5 Credits**

This course introduces you to the laws of the land and how the court system is organized. You will learn an orderly method for analyzing cases, and you will have the opportunity to argue cases with your colleagues. Sit and judge a historical case and determine the outcome based on the ethics of the law and evidence presented.

#### **INVESTMENTS                      Grades 10, 11, 12                      2.5 Credits**

Thinking about becoming a "Wizard of Wall Street" who trades stocks and bonds for profit? Learn the fundamentals of trading through this introductory investment course. Various types of investments will be systematically evaluated using charts and mathematical models. Using the knowledge obtained in this course will allow you to participate in a virtual investment game for points and prizes.

## MARKETING

### INTRODUCTION TO MARKETING

**Grades 9, 10, 11, 12**

**5 Credits**

Discover the secrets behind Pepsi, Wendy's, NASCAR, Coach, BMW, Nike, and other successful brands, 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 revealing your own creative marketing ideas through projects, research, and presentations. \*(see DECA)

*\*DECA - Marketing students are invited to join the marketing organization DECA (Distributive Education Clubs of America), to further develop leadership skills, civic consciousness and put their marketing and business ideas into play as they compete in a career area and pursue scholarship opportunities*

### ADVERTISING

**Grades 10, 11, 12**

**2.5 Credits**

Advertising is a hands-on course that will expand your creativity and computer knowledge. You will create original advertisements and analyze current advertising trends. Some topics include sports and entertainment marketing, fashion marketing, trade show advertising, web page design and creating ads for various media such as TV, newspaper, radio, magazines, and more. You will build a portfolio throughout the course and further develop their work by learning basic design principles, illustration, visual perception, conceptualization, layout and print production.

### CONSUMER BEHAVIOR

**Grades 10, 11, 12**

**2.5 Credits**

Did you ever stop and think about why you buy the things you buy? Consumer Behavior is a course that answers this question by mixing psychology with business. This course explores the life of a product, from its purchase to its eventual disposal. Some topics include perception, attitudes, values, consumer decision-making, and customer satisfaction. You will develop a targeted marketing plan that will help make your product a best seller!

### SPORTS MARKETING

**Grades 10, 11, 12**

**2.5 Credits**

This course expands on the fundamental marketing concepts by focusing on the rapidly growing sports industry. You will learn what goes into developing and promoting sports equipment and apparel, sporting events, and sports franchises. You can creatively apply your love of sports to advertising new sports brands, designing new stadiums, and create your own sports teams. You will also explore the numerous career opportunities within the sports world.

### ENTERTAINMENT INDUSTRY

**Grades 10, 11, 12**

**2.5 Credits**

This course will further develop your understanding of the marketing concept by applying them directly to the entertainment industry. This broad industry covers areas such as: art, music, movies and TV, video games, amusement parks, and much more. This project-based course will focus your interest in the entertainment field while expanding your understanding of how to create and advertise successful entertainment products and services. This course allows you to explore the growing number of careers that are available within the entertainment industry.

### COOPERATIVE MARKETING EDUCATION

**Grade 12**

**15 Credits**

The Program That Works! This paid Internship Program provides you with business and marketing principles in the classroom and field experience in the afternoon. It is recommended for college and career bound students who wish to get a jump on their career goals and experience beyond the basics of part-time employment. The course grade is a combination of classroom studies and field experience. Topics include self-assessment, exploring careers, finding a job, resume writing, joining the workforce, professional development, interpersonal relationships, life skills, taxes, labor laws, health and safety, balancing work and personal life, sales, customer service, and beyond. Typical employers include retail, restaurants, insurance, sales, daycare, banking, administrative office work and more! You should complete an application to the program, secure a position of interest, and file working papers before the start of the school year.



## ACCOUNTING

### ACCOUNTING I

Grades 10, 11, 12

5 Credits

**Prerequisite: Freshman must have teacher recommendation.**

This course provides you with the knowledge needed to plan, prepare, analyze, and interpret financial records. It covers the entire accounting cycle from handling a basic business transaction through the preparation of various journals, ledgers, and financial statements. Experiences are provided to determine your interest in accounting as a career; and as a foundation for further study at the collegiate level.

### ACCOUNTING I HONORS

Grades 9, 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 (Freshmen must currently be enrolled in an Honors level Math course).**

This course is designed to provide the honors-level student with an understanding of accounting concepts, principles, and procedures. You will develop an understanding of the economic activities affecting businesses; and learn to analyze and interpret financial data. This course is strongly recommended for the honors student who plans further study in the fields of accounting, business, finance, or law.

### ACCOUNTING II

Grades 10, 11, 12

5 Credits

**Prerequisite: Successful completion of Accounting I.**

This course will focus on analyzing financial statements of successful American companies, such as Amazon, Nike, and Netflix. You will expand upon the accounting concepts and procedures developed in Accounting I, while exploring the concepts of managerial accounting. Topics covered include corporate, management, cost, and departmentalized accounting.

### ACCOUNTING II HONORS

Grades 10, 11, 12

5 Credits

**Prerequisite: Successful completion of Accounting I Honors and teacher recommendation.**

This course will focus on analyzing the financial statements of Amazon, Nike, Netflix and other highly successful companies. You will expand upon the advanced accounting concepts and procedures developed in Accounting I Honors, while exploring the concepts of managerial accounting. Topics covered include partnership, corporate, management, cost, departmentalized accounting, and financial statement design.

### FINANCIAL LITERACY FOR THE 21ST CENTURY

Grades 10, 11, 12

2.5 Credits

This course provides you with an understanding of personal financial responsibilities related to savings, investments, and other financial matters. Topics include money and credit management, insurance, banking, investing, career preparation, and more. This course satisfies the graduation requirement in New Jersey for Personal Financial Literacy.

There is an option to enroll in an on-line financial literacy course beginning in the summer of 2016.

## 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 as a graduation requirement.

### 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. Students' scores on the ninth grade placement rubric will determine course assignment.

### 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 difficulty grasping higher-level thinking and reading concepts and have trouble expressing themselves in cohesive and correctly written work. These students will be offered and will benefit from detailed modeling in lessons. The course emphasizes establishment of solid foundations in basic communication and study skills and the application of these skills to various reading, writing, and critical-thinking assignments.

### 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 II A** **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 II B** **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 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. 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.

**AP ENGLISH III: LITERATURE** **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 entails an advanced study of literature, drawing heavily from seminal texts in the British Literature curriculum as well as significant works from the American and World canon. AP English III is designed to be an extension of the English II Honors curriculum and demands a high degree of academic excellence and student responsibility. This course is also held to the standards put forth by the College Board's Advanced Placement program and seeks to prepare students for the AP English Literature exam. Emphasis is placed on the thoughtful and thorough analysis of literature in both discussion and writing. Students in this course are expected to complete summer reading and writing assignments.

**ENGLISH III A** **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 20<sup>th</sup> century.

**ENGLISH III B** **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.



**JOURNALISM I** **Grades 9, 10, 11** **5 Credits**  
**PREREQUISITE: Mass Media or teacher recommendation**

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. Students may take Journalism II multiple times, each year further improving on their writing, editing, and layout skills.

**INTRODUCTION TO TELEVISION PRODUCTION** **Grades 10, 11, 12** **5 Credits**  
**PREREQUISITE: Mass Media**

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.

**TELEVISION PRODUCTION II** **Grades 11, 12** **5 Credits**  
**PREREQUISITE: Introduction to Television Production**

Assignments in Television Production II include a greater scope of community news and interests as well as district wide school events. Students work with more independence to create feature length videos including the skilled use of special effects to enhance their projects. The focus of the class will remain centered on the public relations angle of television production for our school community.

**TV PRODUCTION SPECIAL TOPICS: NEWS/SPORTS** **Grades 11, 12** **5 Credits**  
**PREREQUISITE: Introduction to Television Production**

Students in Television Production Special Topics: News/Sports will create a weekly program highlighting important stories and events in Roxbury High School. The program will be aired daily at the high school as well as on the high school website. An integral part of this program is the partnership with MSG Varsity Network, and students will work to meet the goals established by the network.

**CONTEMPORARY LITERATURE** **Grades 10, 11, 12** **2 ½ Credits**  
**PREREQUISITE: Students must have achieved a grade of 80 or higher in English the previous year.**

Contemporary Literature is an elective course that is designed to provide students an opportunity to read and discuss the recent popular publications in literature in an academic setting. Students will read popular works of fiction, will discuss these works in literature-circle fashion, and will engage in the same kind of analytical thinking that is promoted in core English classes and set forth by the Language Arts Common Core Standards.

**CREATIVE WRITING I****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.

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

**PREREQUISITE: Creative Writing I & recommendation of Creative Writing I teacher**

This course is a natural extension of the Creative Writing I curriculum. Over the course of a semester, students will have the opportunity to explore new genres and to delve more deeply into those introduced in Creative Writing I. Students who have demonstrated a passion in a particular form or writing style in Creative Writing I will have the option of focusing their efforts in that area. Students will continue to develop their repertoire of writing skills, literary devices, and rhetorical prowess in both fiction and non-fiction forms.

**NEW JERSEY LITERATURE****Grades 10, 11, 12****2 ½ Credits**

**PREREQUISITE: Students must have achieved a grade of 80 or higher in English the previous year.**

In this course, students will have the opportunity to explore, survey, and make meaning out of New Jersey's literary history from the Colonial Period to modern day through poetry, short stories, novels, drama, essays, memoirs, songs, and artwork, while also studying the influences of regional location. This course gives students the opportunity to read, analyze, and evaluate and various genres of literature written in and about New Jersey, to write about the cultural and geographical influences of New Jersey and its effect on literature, to apply fundamental literary and critical concepts to literature and writing, to explore broader issues related to the state's culture, and to create their own New Jersey literature. This course also gives students the opportunity to strengthen the same Language Arts concepts and skills that are practiced in the core English classes.

**POPULAR CULTURE****Grades 10, 11, 12****2 ½ Credits**

**PREREQUISITE: Mass Media**

Popular culture will explore the habits and norms in our society to see what really intrigues us. We will explore consumerism, marketing and brand recognition along with market research to see how and why we purchase the items and celebrate the media icons. Students will research and implement some marketing strategies of their own.

**SCREENWRITING****Grades 9, 10, 11, 12****2 ½ Credits**

This course provides students with an opportunity to expand their writing skills into new areas. Students forge strong connections to film and television, and this class provides an opportunity to both allow students to expand creatively and learn writing skills that they can carry into other classes. Students will learn to write a variety of scripts in professional screenwriting format, analyze film and television scripts, and evaluate writing for emotional impact and clear narrative.

**SPORTS LITERATURE****Grades 9, 10, 11, 12****2 ½ Credits**

This course will supplement the English curriculum and provide students with opportunities to explore non-fiction and fiction literature and movies that have a sports-related theme. Units of study will include: The Underdog, Racial Issues, Americana, The Impact of Sports of Society, and Sports Scandals.

**THE GRAPHIC NOVEL****Grades 11, 12****2 ½ Credits****PREREQUISITE: Students must have achieved a grade of 80 or higher in English the previous year.**

The Graphic Novel is an elective course that provides students with an important opportunity to explore interests, develop literacy skills, and build a love of reading beyond the scope of core English classes. The course will recognize the graphic novel as a unique literary genre requiring multimodal literacy skills and provide opportunities for learners to engage with rich visual, literary texts in a meaningful way. The Graphic Novel will trace the history of the comic in conjunction with cultural and literary developments of the 20th and 21st centuries. This course provides students with an opportunity to enhance students' literacy skills and to explore the graphic novel genre while adhering to the Language Arts Literacy Common Core Standards.

**WOMEN AND LITERATURE****Grades 10, 11, 12****2 ½ Credits****PREREQUISITE: Students must have achieved a grade of 80 or higher in English the previous year.**

Women and Literature is an elective course that will introduce students to representative works by and about women. Works will be considered from multiple perspectives (historical, social, literary) and will explore how the way that women have been portrayed in literature has evolved over time. As an English elective, students will be engaging in close reading and analytical writing throughout the semester, supplementing the work that's done in core English classes.

## 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**

**5 Credits**

**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**

**5 Credits**

**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**

**5 Credits**

**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**

**5 Credits**

**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, nutrition, personal finance, child development and fashion. 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 student opportunities that include observation and interaction with young children, career exploration, effective parenting and the teaching of young children in our laboratory pre-school. A course in Fashion Design introduces students to the world of fashion and its many career opportunities. Life Management offers personal finance information to make everyday financial decisions, such as purchasing a car, using credit cards, investments and savings accounts. All of our courses in food preparation, child-care, fashion design and personal finance contribute to our overall goal – the growth and development of a self-reliant, productive member of society.

### **CULINARY ARTS I** **Grades 9, 10** **5 Credits**

Culinary Arts I is a full-year course that offers a practical approach to basic food preparation and baking techniques. This is a laboratory work experience where students will prepare nutritious recipes as they study each level of the food guide. Students will be taste testing, sampling, and evaluating their prepared food products. Other topics covered are eating disorders, kitchen design and career opportunities in the many fields of food preparation.

### **CULINARY ARTS II** **Grades 10, 11, 12** **5 Credits**

#### **PREREQUISITE: Culinary Arts I**

Learn how to plan and prepare advanced recipes. Step up to the next level and become the next “Iron Chef”. This course provides a variety of practical learning experiences, problem solving skills, and team building for advanced culinary students. Students will also explore career opportunities in the food service industry.

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

#### **PREREQUISITE: Culinary Arts II and Teacher Recommendation**

Are you interested in preparing food with a creative flair? Stop watching the Food Network and become a master of some advanced and creative cooking techniques! This course offers advanced and creative cooking techniques. Students will focus on the main principal of food preparation; flavor, color, and texture. Students will learn how to use a variety of garnishing tools for food presentation. Students’ will explore the seven courses of the meal including cake decorating and candy making techniques.

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

#### **PREREQUISITE: Culinary Arts II and Teacher Recommendation**

Come on a world tour that includes cooking and sampling many foods from around the world! In world cuisine students will explore and understand different cuisines as they are influenced by geography, climate, history, and cultures. Students will also explore international food customs and cooking techniques. Students will also recognize common staple foods and cooking methods that are native to specific countries.

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

This class serves as a guide for anyone interested in the world of fashion. Students learn about clothing design and selection, textiles, being a smart consumer, personal color analysis, line and design in clothing and fashion careers. The students will also explore the history of fashion and some of fashions’ leading designers. The class will have hands on experience sewing by hand and by machine to repair, alter and create new projects. If your interest is in fashion drawing, you will get to illustrate designs both by hand and on the computer aided design software used in the fashion industry. This class offers a little bit for everyone if you are interested in fashion design.

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

Join us as we explore the many career paths in the 21<sup>st</sup> century such as: social services, education, fashion design, interior design as well as hospitality and nutrition. Students will be provided the opportunity to develop critical thinking and problem solving skills. Interactive and hands on activities related to career orientation and community service are stressed.

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

This course provides an actual laboratory experience interacting with community preschoolers. The class develops key insights and understandings into child development, parental relationships, families, and society as a whole. Students will gain knowledge of what it means to be an educated and informed parent. Careers in the ever expanding child care field will also be explored.

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

Life Management is designed to aid the student in meeting the financial challenges of everyday 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. This course satisfies the state graduation requirement for economics.

**TEACHING YOUNG CHILDREN****Grade 12****10 Credits****No prerequisite is required**

For those who are thinking of a career in teaching, or working with children of any age, this is the class for you. This is an opportunity to work with four year old children, from the Roxbury community, in a preschool setting. You will learn how to plan activities, create lessons, and interact with children. This is a hands on chance to apply your knowledge of psychology and human behavior, while actually running a nursery school. This course will give you a strong foundation for working or teaching in a preschool, elementary, middle or high school setting. Upon successful completion of the course, each student will receive a state approved child-care certificate.



**WOOD TECHNOLOGY I****Grades 9, 10****5 Credits**

This course introduces the student to the fascinating field of wood technology. The student will work with basic designs, create and interpret working drawings, compute board feet, and develop problem-solving skills. Students will gain practical, hands-on experience by designing a plan and then creating a finished wood project. Proper planning procedures and strict observation of safety rules are stressed. This course has great appeal for anyone who may enjoy working with wood as a hobby.

**WOOD TECHNOLOGY II****Grades 10, 11, 12****5 Credits****PREREQUISITE: Wood Technology I**

Wood Technology II focuses on the many processes, materials, hand and power tools, and manufacturing procedures for wood. The student will be introduced to advanced techniques in the construction of furniture. Students will work with hardwoods and different types of finishes. They will also explore the many career opportunities in the wood working area and related fields.

**WOOD TECHNOLOGY III****Grades 11, 12****5 Credits****PREREQUISITE: Wood Technology II and Teacher Recommendation**

In this advanced course the student interested in woodworking will have an opportunity to develop his/her skills and work with wood processes used in building furniture and in the production of cabinets.

**WOOD TECHNOLOGY IV****Grade 12****5 Credits****PREREQUISITE: Wood Technology III and Teacher Recommendation**

Wood Technology IV or "Cabinetmaking" is a mastery-level course and is an independent study of woodworking and wood properties. Critical-thinking skills and problem-solving techniques are stressed as students expand on their prior years of wood training. Project selection is the responsibility of the student with instructor approval.

## MATHEMATICS

The mathematics department offers a comprehensive sequence of courses designed to meet the needs of all students at all levels of mathematical development and expertise. Courses emphasize the knowledge and skills necessary for students to be college and career ready and reflect the high academic expectations of the Common Core State Standards for students to achieve conceptual understanding as well as procedural fluency. The program objectives are to assist students to become problem solvers who can apply the knowledge they have attained to new situations, construct viable arguments and intelligently use technology to make sense of complex problems and persevere in solving them. 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 meet the state requirements on state assessments. Course assignments for freshmen will be determined by a student's score on the eighth grade placement grid.

### **ALGEBRA I A** **Grade 9** **5 Credits**

The concepts presented in Algebra 1A extend and deepen a student's understanding from prior courses. Students should be fluent in solving linear equations, in writing the equation of a line given a point and slope, in graphing a linear function and in solving a system of linear equations. Students will extend these concepts to include using a system of inequalities in two variables to model linear phenomena. Conceptual knowledge will be blended with procedural fluency and problem solving. Students will study quadratic and exponential functions and construct and compare linear, quadratic and exponential models to solve problems. Students must have successfully completed a Pre-Algebra course and be able to demonstrate proficiency on the necessary prerequisite skills. Technology will be used to support instruction.

### **ALGEBRA I B** **Grade 9** **5 Credits**

Algebra IB provides a strong algebraic foundation for all subsequent mathematics courses. Students will develop depth of understanding of algebraic concepts and procedures through communication, representations, reasoning, making connections, problem solving and technology integration. Topics include the properties of operations on real numbers and expressions, linear and non-linear functions, inequalities, patterns, polynomials, data analysis and probability, and linear, quadratic and exponential equations and their graphical models. This course is paced for the average ability student after successfully completing a Pre-Algebra course.

### **ALGEBRA I C** **Grades 9** **5 Credits**

Algebra 1C is designed for the student who has difficulty mastering mathematical concepts and skills on the abstract level but gain their understanding through concrete and representational models. Students should be able to perform operations on rational numbers and solve and graph linear equations. Knowledge of fundamental arithmetic without the use of a calculator and Pre-Algebra skills are required.

### **FOUNDATIONS OF ALGEBRA** **Grade 9** **5 Credits**

The Foundations of Algebra course provides the fundamentals necessary for all subsequent high school math courses. Students will develop prerequisite skills necessary for Algebra I including the development of procedural fluency with 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 will develop strategic competence, conceptual understanding, procedural fluency and problem solving skills through hands on activities and visualizations. Students must have successfully completed Grade 8 Math.

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

**PREREQUISITE: Grade 8 Algebra I minimum grade A; Algebra I A grade of 97**

Geometry Honors provides an in-depth study of the relationships, properties and measurements of geometric figures, special shape relationships and trigonometry. Other topics include geometric patterns, constructions, proofs, coordinate geometry and transformations. Algebraic concepts, logical thinking, deductive reasoning, mathematical proofs, and the properties of plane and spatial figures are emphasized. Students will be expected to construct viable arguments and make conjectures using assumptions, definitions, theorems and postulates. Algebraic techniques will be applied to geometric relationships.

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

**PREREQUISITE: Grade 8 Algebra I grade of 85; Algebra IA grade of 80.**

Geometry A is the study of the relationships, properties and measurements of geometric figures. The course 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, trigonometry, coordinate geometry and transformations. Students will use coordinates to algebraically prove geometric theorems, to visualize relationships between two-dimensional and three-dimensional objects and to apply geometric concepts in modeling situations.

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

**PREREQUISITE: Algebra I B grade of 75**

Geometry B is designed for the average ability student who has successfully completed Algebra I and needs additional time to master mathematics concepts. Proofs are de-emphasized in synthetic and analytic forms and emphasis placed on the development of a student's ability to identify repeated reasoning and to build a logical progression of statements to justify conclusions. Topics include: lines, angles, triangles, congruence, similarity, parallelism, polygons, circles, solids, area, volume, constructions, trigonometry, coordinate geometry and transformations.

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

**PREREQUISITE: Algebra I C**

Geometry C is designed for the student who has difficulty mastering abstract mathematical concepts and relationships. Although the same topics are covered as in Geometry B, students will use concrete references such as models, drawings, diagrams, graphs, flowcharts and manipulatives to establish geometric relationships, to construct viable arguments and draw conclusions. Recognition and application of definitions, theorems and postulates is emphasized. Algebraic skills are reinforced through the application of algebraic skills to geometric concepts.

**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 advanced mathematics student who has demonstrated highly developed abstract reasoning, procedural fluency and conceptual understanding. This course provides rigorous preparation for PreCalculus through challenging problems and in-depth development of algebraic concepts. Emphasis is placed on the study of functions, their properties and analysis of their graphs. The properties of the complex number system are developed. Linear, quadratic functions and relations, exponential and logarithmic functions, probability, sequences and series as well as rational and imaginary expressions are studied. Students will explore the effects of transformations on graphs of functions and identify an appropriate model for a given situation. Conjectures will be supported through the use of a graphing calculator. This course is a prerequisite for PreCalculus Honors.

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

**PREREQUISITE: Geometry A grade of 80**

Algebra IIA is designed for the student with above average ability in mathematics who is able to form generalizations, make connections, communicate their understanding and construct a representative model to help conceptualize a complex problem. Building on understanding of linear, quadratic and exponential functions from Algebra I, students will extend function concepts to include polynomial, rational and radical functions. The properties of the real number system as developed in previous courses are extended and additional properties of the complex number system are introduced. Linear, quadratic functions and relations, exponential and logarithmic functions, absolute value functions, probability, sequences and series as well as operations with rational, irrational, and imaginary expressions are studied. Students will use a graphing calculator to analyze and search for properties of graphs and graph irregularities. This course is a prerequisite for PreCalculus.

**ALGEBRA II B** **Grades 11, 12** **5 Credits**

**PREREQUISITE: Geometry B grade of 75**

Algebra IIB is designed for the student who has successfully completed Geometry B. Course content includes linear and quadratic functions, relations, statistics and probability and operations with rational, irrational, imaginary and complex expressions. Graphing is emphasized. 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 II C** **Grades 11, 12** **5 Credits**

**PREREQUISITE: Algebra I and Geometry**

Algebra IIC is designed for the student who has completed geometry and has difficulty mastering abstract mathematical concepts and making connections to concepts in new situations. Course curriculum includes linear and quadratic functions and relations, statistics and probability as well as operations with rational, irrational, imaginary and complex expressions. This course does not meet prerequisites for PreCalculus or Advanced Algebra and Trigonometry. Students may elect College Prep Math after completing Algebra IIC.

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

**PREREQUISITE: Algebra II Honors grade of 85; Algebra II A grade of 97; Geometry A grade of 97**

Honors PreCalculus prepares a student for Advanced Placement Calculus courses (AB or BC Calculus). Students will study polynomial, rational, exponential, logarithmic and periodic circular functions and their applications. The graphing calculator will be used to analyze graphs and make predictions, in order to anticipate and verify algebraic solutions. Students will study trigonometric concepts including identities, trigonometric equations, graphs in Cartesian and polar coordinates, solutions of triangles, navigation applications and 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. A graphing calculator is required.

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

**PREREQUISITE: Algebra II A grade of 80; Advanced Algebra & Trigonometry grade of 80**

Students intending to pursue advanced studies in mathematical and scientific related fields during their college experience should elect to enroll in 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 a graphing calculator are required.

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

**PREREQUISITE: Algebra II A grade of 75; Algebra II B grade of 85**

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 reinforcement of algebra and geometry skills, 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 Honors PreCalculus. The course is the equivalent of two semesters of college calculus as outlined by the College Board and prepares the student for the AP Calculus BC Examination. Students should 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 concepts. The course curriculum aligns to the content outlined by the College Board. The course covers the equivalent of one semester of the average college calculus course and prepares the student to confidently take the AP Calculus AB Examination for college credit. Students should 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 studied 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 prepares students for a college Calculus course.

**INTRODUCTION TO PROBABILITY AND STATISTICS**      **Grades 11, 12**                      **5 Credits**

**PREREQUISITE: Algebra II A grade of 80 or Algebra II B grade of 90**

This course provides an introduction to important topics in statistics by focusing on statistical thinking behind data collection and analysis. 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: Completion of Algebra I. Algebra IA can be taken concurrently.**

This semester course is the first in a sequence of two courses that introduces students to the fundamentals of computer programming and software design. Students will learn about the software development process through the use of Visual Studio, Microsoft's integrated development environment, and the Visual C# Programming language. In addition to designing graphical user interfaces, students will implement variables, data types, conditional statements, loops, and methods to code and debug event-driven Windows applications, while sharpening their algorithmic, problem-solving and logical thinking skills. 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 grade of 70.**

This semester course is the second in the series of two introductory courses in computer programming and software design. Topics include arrays, string manipulation, and sprite animations with and introduction to object-oriented programming concepts and video game design to provide a foundation in computer programming. Students will work in the Visual C# programming language and design applications for Windows, Windows RT, Xbox 360, and Windows Phone. This course is only offered during the spring semester.

**AP COMPUTER SCIENCE**    **Grades 10, 11, 12**    **5 Credits**  
**PREREQUISITES: Completion of Introduction to Computer Science II with a grade of 90.**

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 II A or PreCalculus grade of 90; English III A 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. Topics include sampling, surveys, and experimental design, organizing data, distributions, probability and 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.

**COLLEGE PREP MATH FALL**    **Grade 12**    **2 ½ Credits**  
**PREREQUISITE: Algebra II C grade of 85 or Algebra IIB grade of 75**

This fall semester course provides students with the opportunity to review the fundamental concepts of Algebra I, Geometry, and Algebra II in preparation for college entrance examinations and for their first college math course. Topics include the study of higher order functions and equations. Computational fluency will be integrated throughout the course. Students will focus on refreshing and developing their math and problem solving skills and fluency and on the application of mathematical concepts to real world situations in other fields of study.

**COLLEGE PREP MATH SPRING**    **Grade 12**    **2 ½ Credits**  
**PREREQUISITE; Algebra II C grade of 85 or Algebra IIB grade of 75**

In this spring semester course students will review linear equations, inequalities and functions, systems of equations and inequalities, absolute value functions and inequalities and operations with functions. Other topics include sequences and series, volumes and areas of composite and 3D objects and trigonometry. Students will use technology to simulate the college placement test experience.

**INTRODUCTION TO ROBOTICS****Grade 9, 10, 11, 12****2 ½ Credits****PREREQUISITE: Algebra I**

This semester elective course is designed to engage students in STEM – oriented activities while developing their mathematical computational skills and exploring career opportunities in the rapidly growing field of robotics. Students will learn about engineering design, the design process and project management and review. The curriculum utilizes Natural Language, an intuitive, easy to use version of ROBOTC. Natural Language is for beginner programmers and is designed as a stepping stone to full ROBOTC programing. Students will combine mathematical thinking and problem solving strategies while building and programming real-world problems involving robots.

## **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 who want to pursue a performance-based class in Broadway Theatre. Students will explore the art of musical theatre through performance, directing, listening, movement, 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.

**CONCERT BAND** **Grade 9, 10, 11, 12** **5 Credits**

**PREREQUISITE: Placement via Instrumental Music Assessment**

The Roxbury High School Concert Band fosters the highest performance standards while offering its members an opportunity to expand their technical, intellectual, and musical horizons. The concert band is open to all instrumental students in grades 9-12 via an instrumental placement process.

**SYMPHONY BAND** **Grades 9, 10, 11, 12** **5 Credits**

**PREREQUISITE: Audition**

The Roxbury High School Symphony Band is an auditioned curricular ensemble of students in grades 9-12. High quality contemporary and standard wind band literature make up the musical repertoire performed by the ensemble. The Symphony Band is dedicated to playing outstanding and challenging works of strong artistic merit.

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

**PREREQUISITE: Audition**

The Roxbury High School Honors Wind Symphony is the premier instrumental performing arts ensemble consisting of auditioned students grades 10-12. Any student who is selected as a member of the Wind Symphony receives honors credit for this course. A high level of musicianship is demanded from every member of the ensemble.

**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.

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

The Basic Music Theory class is open to any student interested in the study of the theoretical aspects of music. This class will explore the compositional structure of music through the study of theoretical concepts. Students will learn the grammar and equations of music that help to create a finished product. Basic Music Theory is a foundation course designed to prepare students for AP Music Theory for basic college music theory. Students will be able to understand and apply the theoretical components of music. Practical application will be demonstrated through analyzing, composing, ear training, and listening to music.

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

**PREREQUISITE: Basic Music Theory and Teacher Recommendation**

The AP Music Theory Class is an advanced level theoretical course open to students that have successfully fulfilled the Basic Music Theory prerequisite. In extremely rare circumstances, a student who demonstrates exceptional ability and possesses the content knowledge associated with Basic Music Theory may place into AP Theory without the prerequisite requirement. AP Music Theory will explore advanced theoretical and compositional concepts of music that are in line with the national Music AP Test. If a student chooses to take the AP Music Theory Test and successfully scores high enough, college credit may be earned. Students will be able to understand and apply the theoretical components of music and practical application will be demonstrated through analyzing, composing, sight-singing and listening to music

## **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**

**Grades 9, 10, 11, 12**

**3.75 Credits**

The physical education four-course series consists 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	Project Adventure (Gr.9)	Track and Field
Archery	Floor Hockey	Ultimate Frisbee
Basketball	Racquet Sports	Volleyball
Fitness/Endurance	Soccer	Weight Lifting
Golf	Softball	Yoga/Pilates
Lacrosse	Stress/Fitness Concepts	
New Games	Team Handball	

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.

### **HIGH PERFORMANCE PHYSICAL EDUCATION**

**Grades 10, 11, 12**

**3.75 Credits**

High Performance Physical Education is designed to allow students of higher skill levels, and stronger motivation, more compatible playing strategies to utilize those qualities in team and competitive situations. Students will continue the application of teamwork strategies in previous game units and evaluate the efficacy of those strategies. Depending on the situations, members of the class will act as coaches, referees, and organize tournaments. Students will be expected to be involved in all aspects of the class. This includes but is not limited to team formations, field setup and equipment care. Grading, fitness testing, acceptable dress and attendance will be in line with the regular Physical Education class.

**WELLNESS PHYSICAL EDUCATION****Grades 10, 11, 12****3.75 Credits**

Personal Wellness is designed to allow students to meet fitness standards and to participate in activities that they can incorporate into their individual lifestyles. Students will discover their own fitness levels and will develop plans for improvement. Students will work within their own target heart rate zone and will increase their heart's functioning ability. Muscles will be worked both for strength and endurance. Flexibility and stress management will be incorporated into the class structure. Proper nutrition for a healthy lifestyle is studied and incorporated into the fitness plans that the students develop. Upon successful completion of the class students will have a respect for all aspects of fitness and will be able to design an individualized program for themselves that will be appropriate for their lifestyle.

**PHYSICAL EDUCATION ELECTIVES**

**NOTE: These courses may be scheduled in addition to the required Physical Education course.**

**INTRO TO EXERCISE SCIENCE****Grades 11, 12****2 ½ Credits**

In this course, students will explore and understand more comprehensively the tool that they use every day: their bodies. A greater understanding of the “how” and “why” of basic functions will inevitably lead to a more efficient utilization of the machine they are meant to use for the rest of their lives. We will cover the major areas of exercise science, including kinesiology, exercise physiology and human movement studies, as well as various career opportunities.

**INTRO TO EXERCISE PSYCHOLOGY****Grades 11, 12****2 ½ Credits**

Intro to Exercise Psychology takes a sociological approach, with a smaller emphasis on the exercise and a greater focus on the *exerciser*. Why does one method of motivation work for one individual, yet act as a deterrent for another? What are the many internal and external factors contributing to preference of activity? Also, we will explore the many benefits of exercise beyond the physical, as studies show the brain gains just as much as the muscles involved, if not more.

## **NINTH GRADE HEALTH**

**1.25 Credits**

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**

Driver Education Theory is the first segment of driver education. This course is only offered to 10<sup>th</sup> grade students during one quarter of their Physical Education class. Students must achieve a grade of D- or better to pass the classroom instruction portion of driver's education. 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**

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**

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. Good health is what allows people to live up to their 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 designed to meet the needs of our students as they prepare for further education and careers. We strive to help students grow in their problem solving skills, data analysis, critical thinking, and to value the role of science in a multiplicity of disciplines. We strive to instill in students the importance of science in shaping our future and environment. Freshmen, sophomores and juniors must take a science course within the Science Department.

AP classes meet two additional 35 minutes per week. Honors classes meet one additional 35 minutes per week.

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. Students will develop an understanding of the complex and significant interdependencies between humans and the rest of Earth's systems through the impacts of natural hazards, our dependencies on natural resources, and the significant environmental impacts of human activities. 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                      5 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. Students will develop an understanding of the complex and significant interdependencies between humans and the rest of Earth's systems through the impacts of natural hazards, our dependencies on natural resources, and the significant environmental impacts of human activities. 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 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. Students will develop an understanding of the complex and significant interdependencies between humans and the rest of Earth's systems through the impacts of natural hazards, our dependencies on natural resources, and the significant environmental impacts of human activities.

### **BIOLOGY HONORS                      Grade 9                      6 Credits**

#### **PREREQUISITE: Algebra I in Grade 8**

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**

**PREREQUISITES:**

**SCIENCE: A minimum grade of 85 in Geophysical Science Honors.**

**MATH: A minimum grade of 85 in Algebra IA**

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** **5 Credits**

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

This course is designed for the student preparing for college who has a strong mathematics background. It emphasizes a laboratory approach in biological sciences such as ecology, heredity and genetics, anatomy and physiology, molecular and cellular basis of life and areas of species development.

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

**PREREQUISITE: Geophysical Science A or B**

This course is designed for students who need support in mathematics and reading. Areas of study include cell structure and function, heredity and genetics, evolution and ecological issues related to today's society. Emphasis is placed on laboratory skill development and the practical application of biological principles. Organizational and study skills are reinforced.

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

**PREREQUISITES:**

**SCIENCE: A minimum grade of 85 in Biology Honors or 90 in Biology A**

**MATH: A minimum grade of 80 in Algebra IIA or previous Honors or A level math class. Algebra IIA may be taken concurrently.**

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. Students are expected to be able to make conjectures and build a logical progression of statements to support the truth of their conjectures.

**CHEMISTRY A** **Grade 11** **5 Credits**

**PREREQUISITES:**

**SCIENCE: A minimum grade of 75 in Biology A or Honors**

**MATH: A minimum grade of 75 in Algebra IA. Algebra IIB 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. Students must possess and demonstrate computational fluency.

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

**PREREQUISITES:**

**SCIENCE: A minimum grade of 75 in Biology B and GeoPhysical Science B.**

**MATH: A minimum grade of 75 in Algebra IB. Algebra IIB can be taken concurrently.**

**Students enrolled in Algebra IIA or higher are not eligible for this course.**

This course is designed to meet the needs of the 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.

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

**PREREQUISITE: A minimum grade of 60 in both Geophysical Science and Biology.**

**Students enrolled in Algebra IIB or higher are not eligible for this course.**

This course focuses on students' understanding of the scientific forces that govern their lives. Students will explore the practical applications of both chemistry and physics. They will study the connection between chemistry, physics and ecology, biology, and geophysical science. 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**

**PREREQUISITES:**

**SCIENCE: A minimum grade of 80 or higher in Chemistry Honors or 90 in Chemistry A.**

**MATH: A minimum grade of 85 in Algebra IIA or Algebra IIIH or 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 on problem-solving and experimental laboratory work. Students will work both individually and in groups for laboratory assignments and special projects.

**PHYSICS A**    **Grades 11, 12**    **5 Credits**

**PREREQUISITES:**

**SCIENCE: A minimum grade of 75 or higher in Geophysical Science A, Biology A, Chemistry A.**

**MATH: A minimum grade of 75 in Algebra IA, Geometry A and Algebra IIA. PreCalculus or Advanced Algebra and 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. This course meets the criteria for all colleges as a laboratory science in the area of physics.

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

**PREREQUISITE:**

**SCIENCE: A minimum grade of 75 in Geophysical Science B, Biology B, Chemistry B, Intro to Chemistry and Physics.**

**MATH: A minimum grade of 75 in Algebra 1B and Geometry B. 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. The areas of study include motion, vectors, forces, Newton's laws, momentum, energy, torque, harmonics, optics and electricity. This course meets the criteria for all colleges as a laboratory science in the area of physics.



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

**PREREQUISITE: A minimum grade of an 85 or higher in Biology H and Chemistry H.**

This course is designed for highly accelerated academic students with a strong interest in the biological sciences. This course will include biochemistry, the relationship of biochemistry to genetics, the patterns of structure and function throughout life forms and major topics of mammalian anatomy and physiology. The topics from Biology are expanded and covered in depth equivalent to first year college level using a college level text and laboratory investigations adapted from college laboratory manuals.

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

**PREREQUISITE:**

**SCIENCE: A minimum grade of 85 in Chemistry H. A minimum grade of 90 in Chemistry A.**

**MATH: A minimum grade of 80 in PreCalculus. PreCalculus may be taken concurrently.**

This course is designed for a highly accelerated, academically advanced student with a strong interest in pursuing a career in science related fields. It is presented as a college level course in chemistry. Advanced level topics in physical chemistry will be explored through a highly laboratory oriented program. Emphasis is placed on quantitative experimentation. This course will prepare the student for the advanced placement exam in chemistry if he or she elects to take the exam.

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

**PREREQUISITES:**

**SCIENCE: A minimum grade of 85 in Physics Honors.**

**MATH: A minimum grade of 85 in Algebra II Honors or PreCalculus.**

This second level, calculus based 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, electronics and magnetism. The course will include projects, discussion, and units to prepare students for the Advanced Placement exam. This class is based on the APC curriculum, which is a national curriculum from the College Board. Please visit [apcentral.collegeboard.com](http://apcentral.collegeboard.com) for further information the APC calculus based curriculum.

## SCIENCE ELECTIVES

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

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

**PREREQUISITES:**

**SCIENCE: A minimum of 75 or better in Geophysical Science**

**MATH: A minimum of 75 or better in Algebra IA**

Astronomy is an academically challenging elective designed for students who have a strong interest in the science behind what we know about the Universe. Students will be introduced to our basic understanding of the Universe through the premise of asking, "What conditions are necessary for life to exist in the Universe?" Students will be introduced to the fundamental concepts of astronomy such as; Kepler's Laws planetary motion, Universal Gravitation, comparative planetology, exoplanet discoveries, stellar evolution, and cosmology.

**FORENSIC SCIENCE****Grades 11, 12****2 ½ Credits****PREREQUISITES: A grade of 75 or better in Biology A or honors. A grade of 85 or better in Biology B. Chemistry may be taken concurrently.**

Forensic Science is a laboratory based course designed to introduce students to the scientific methods of collecting and analyzing evidence in order to solve crimes. Content will include procedures in processing a crime scene, how to properly collect & handle evidence, analyzing evidence, and how various types of physical evidence are used in forensic investigations. Forensic Science will utilize frequent hands on investigations, building upon scientific process skills and collaboration. Written and oral communication skills are also developed through lab reports, case studies, and a final research project. This course is meant for the motivated student interested in pursuing further studies in science and/or career in criminal justice.

**METEOROLOGY****Grades 10, 11, 12****2 ½ Credits****PREREQUISITES:****SCIENCE: A minimum of 75 or better in Geophysical Science****MATH: A minimum of 75 or better in Algebra IA**

Meteorology is designed to give students a basic understanding of the atmosphere, its processes and its interactions with the Earth's system. Students will be introduced to several basic concepts of meteorology, such as ocean-atmospheric interactions, physical and chemical properties of air, tropical meteorology including hurricanes, winter storms including blizzards and Nor'Easters, severe weather including thunderstorms and tornadoes, and weather forecasting. Students will learn through developing using problem solving skills through the handling of lab materials and use of real-time data available on the internet and our weather station.



**UNITED STATES HISTORY I A****Grade 10****5 Credits**

This course is designed to provide motivated students with a solid foundation of our nation's early history from the Colonial Era through Reconstruction. Students will be exposed to primary source materials, mass media resources, historical research, interpretation and evaluation of maps, charts, graphs, political cartoons, and class discussion. Students will continue the development of social studies skills to more challenging reading and writing assignments with emphasis on critical analysis and compare and contrast activities.

**UNITED STATES HISTORY I B****Grade 10****5 Credits**

This course will give students a foundation in the chronology of American history from the Colonial Era through Reconstruction. A factual basis is given students so as to help them interpret issues and themes of the character of colonial society, American expansionism, the Constitution, nationalism, sectionalism, abolition and the impact of wars and their aftermath on our nation's growth and development. Students enrolled in this program will be afforded the opportunity to develop their reading and writing skills as well as map reading skills, graph and political cartoon interpretation. Critical and analytical thinking skills, the ability to work independently and to work with primary source materials will be developed.

**ADVANCED PLACEMENT UNITED STATES HISTORY II****Grade 11****5 Credits****PREREQUISITE: Must achieve an 85 in US History I Honors.**

This United States history class is open to those students who wish to pursue college-level studies while still in high school. The course is designed to provide students with both a chronological study of United States history and major interpretive questions that derive from the study of selected themes. Students will examine a series of problems through specialized writing by historians and through supplementary readings, including documentary material. The course content will cover from Reconstruction through the Modern Era. Students who take this course will be prepared for, and are expected to take, the Advanced Placement U.S. History Examination.

**UNITED STATES HISTORY II A****Grade 11****5 Credits****PREREQUISITE: United States History I**

This course is designed to provide motivated students with a solid foundation of our nation's later history from the Reconstruction through the Modern Era. Students will gain invaluable insight into the decisions and implications affecting our social, economic and political growth as a nation in the 20th century. Students will be exposed to primary source material, mass media resources, historical research, interpretation and evaluation of maps, charts, graphs, and political cartoons, and class discussions. Students will continue the development of Social Studies skills to more challenging reading and writing assignments with emphasis on critical analysis and compare and contrast activities.

**UNITED STATES HISTORY II B****Grade 11****5 Credits****PREREQUISITE: United States History I**

This course is designed to give students a foundation in the decisions and implications affecting our social, economic, political, and psychological growth as a nation in the 20<sup>th</sup> century. Emphasis will be placed on developing writing, critical thinking, and Social Studies skills.

## SOCIAL STUDIES ELECTIVES

**NOTE: These courses are scheduled in addition to the required Social Studies course.**

**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.

**ADVANCED PLACEMENT US GOVERNMENT AND POLITICS**      **Grades 11, 12**      **5 Credits**  
**PREREQUISITE: Recommendation of current Social Studies teacher; minimum of 85 in Honors/AP History and English or minimum 93 in A level History and English.**

In a republic of sovereign citizens, it is essential that people have an understanding of their government and its structures. In order to be productive citizens and good stewards of the Republic, students should leave school with a fluency in such concepts as federalism, separation of powers, the rights of individuals, and political parties, among others. This course will expand the opportunity for students to gain a deeper understanding of the mechanisms of government, and of political culture, through the study of philosophical, constitutional, institutional and social underpinnings that form the basis of American government and politics. Through the analysis of a variety of sources and materials, students will achieve a richer comprehension of our great national democratic experiment. Additionally, this course will help prepare students for the A.P. Government Institutions and Policies exam, which is given in May.

**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; an 85 in Biology Honors or a 93 in Biology A and 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.

**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.

**POLITICAL AND LEGAL STUDIES****Grades 9, 10, 11, 12****5 Credits**

This course is designed to prepare students for full citizenship responsibilities by attempting to provide a realistic understanding of the processes of governing in present day United States. Students are expected to participate in supervised activities designed to acquaint them with the political and legal processes of the community, state, and nation. Activities include preparing and participating in court cases in the Morris County Bar Association's annual competition and participating in appropriate elections held throughout the year. Upper classmen are given priority consideration in registering for this class.

**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. In order to examine some cultures and gain a better understanding of the development of mankind physically and socially, there may be certain norms, rituals, practices, and behaviors that some may find offensive or unsuitable for discussion. The course is designed for those who have a true interest in deepening their understanding of the field of anthropology. Upper classmen are given priority consideration in registering for this class.

**COMPARATIVE WORLD RELIGIONS****Grades 9, 10, 11, 12****2 ½ Credits**

This elective semester course is designed to give students knowledge and understanding of the world's major religions and ideologies. The objectives of the course are: to examine the essential practices, philosophies and institutions of each belief system with emphasis on its founding and normative principles; to gain an understanding of the cultural and historical meaning of these systems; to identify similarities and differences of thought and practice among various belief traditions; to critically discuss and evaluate various religious and philosophical views; to compare and examine the influences of these belief systems in our world today and to develop the skills necessary to engage in respectful and fruitful dialogue with others. This knowledge and these understandings are especially relevant in today's world. Students will apply this knowledge and understanding to analyze current world situations and geopolitical cauldrons, for instance, conflict in the Middle East.

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

Contemporary World Issues offers students the opportunity to discuss current issues facing the United States and the world through an analysis of world events and their historical and geographic background. Current magazines, newspapers, and selected readings will provide the resources for the content of this course. Students should have a keen interest in world affairs and be able to keep pace with events as they unfold. In addition students should have some background in expressing their opinions through analytical and persuasive writing. Students should be aware that topics discussed are mature in content. Upperclassmen are given priority consideration in registering for this class.

**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.

**EXPERIMENTAL PSYCHOLOGY****Grades 11, 12****2 ½ Credits****PREREQUISITE: Minimum of one semester of AP Psychology, Human Behavior, or Statistics**

This course is an applications course, allowing students to conduct correlational experimental research on a diverse range of psychological topics. These topics include but are not limited to development, cognition, memory, motivation, perception, stress, emotions, disorders, and social phenomena. Students will be introduced to various scientific methods and research techniques for gathering and analyzing data so that they may find answers to their questions in a scientifically sound way. They can then make inferences from their results, evaluating the reliability and validity of their study and its implications for humanity.

**PHILOSOPHY AND ETHICS****Grades 10, 11, 12****2 ½ Credits**

The objective of this course is for students to identify and analyze a variety of ways of understanding one's relationship to the world. This course will also investigate certain philosophical explanations of the meaning and value of human existence. The types of theories that it will explore argue that action, freedom, and choice are fundamental aspects of human existence. Some of the thinkers that the course may examine include Plato, Socrates, Kierkegaard, Nietzsche, Sartre, Camus and an array of other thinkers. In addition, this course encourages students to use deductive reasoning to formulate their own philosophies, while using the philosophers of the past to describe their reasoning.

**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.

## VISUAL ARTS

Visual Arts teaches valuable skills which lead to student success: creativity, problem solving, self-discipline, and confidence. In each class students are guided through the Creative Process: idea generation, research, design, hands-on projects, and reflection. We offer classes for every student, those who are looking for a hands-on experience and those who are planning a career in the arts. Our focus is on the individual student's ability, skill level and interest. The students are guided and challenged to experiment, take creative risks and go outside of their comfort zone in order to learn something new. Concentrations in Fine Arts, Photography, Ceramics and Sculpture, Computer Arts and many Independent Study opportunities are available to those with a serious interest in art as a career.

### **ART I – VISUAL ART ESSENTIALS**                      **Grades 9, 10, 11, 12**                      **5 Credits**

This course gives students a well-rounded experience in the visual arts. While using a wide variety of media, students learn various art processes and techniques. They will explore two and three dimensional art including drawing, painting, and mixed media. Studies include an abbreviated chronological history of art, proportion, perspective and the application of elements and principles of design. Here, they learn to appreciate fine art, discuss and justify their perceptions about artwork by using art vocabulary. This course is a required prerequisite for all of the following art classes.

### **ART II – STYLES AND TECHNIQUE**                      **Grades 10, 11, 12**                      **5 Credits** **PREREQUISITE: Art I**

This class is second step on the track to Art Major. Students will expand on concepts learned in Art I, with an emphasis on observational drawing and development of skills and technique. History of art post Renaissance to Modern will be explored. Students will experiment with a variety of wet and dry media and complete sketchbook assignments aimed at improving their skills. The type of work and qualifications required to be successful in a variety of art related careers will be explored.

### **DRAWING AND PAINTING**                      **Grades 10, 11, 12**                      **5 Credits** **PREREQUISITE: Art I**

This course is designed for the serious art student who wants to improve their drawing and painting skills. Projects focus on exploring and incorporating different media into a variety of creative and thought-provoking projects. Through weekly sketchbook assignments, research and involved lessons, students will learn how to assimilate meaning and self expression into the creation of portfolio-worthy pieces of art.

### **CERAMICS I**                      **Grades 10, 11, 12**                      **2 ½ Credits** **PREREQUISITE: Art I**

This course is an introductory class in which the student creates three dimensional objects made of clay. They learn hand building techniques including coil, slab, pinch and drape. Glazing and decorating techniques are explored. Students study the art and artifacts from a variety of cultures and incorporate the artistic influence into their own ceramic projects. They keep a sketchbook for notes, sketches and self-critique and create and maintain a digital portfolio of projects created in the course. An individualized approach permits students to further develop their creative potential.

### **CERAMICS II**                      **Grades 10, 11, 12**                      **2½ Credits** **PREREQUISITE: Successful completion of Ceramics I**

This class is an intermediate course in which the student builds upon the knowledge and skills gained in Ceramics I. It allows for a more in-depth study of clay building and surface decoration techniques. Students examine the art and artifacts of various cultures, find inspiration which they merge with self-expression and individual style as they design and create ceramic projects. They keep a sketchbook for notes, sketches and self-critique and create and maintain a digital portfolio of completed work. An individualized approach permits students to further develop their creative potential.

**CERAMICS III** **Grades 11, 12** **2 ½ Credits**  
**PREREQUISITE: Ceramics II grade of 80+, teacher recommendation or portfolio review**

This course is available to students who wish to apply their above average ceramic skills to the creation of challenging ceramic objects. New techniques are introduced which will require creative thinking and problem solving skills. Students examine artists and cultures for inspiration, perfect technique through the creation of a series, incorporate personal expression and individual style into their project design. They are responsible for studio work including loading and unloading of the kiln, maintaining kiln shelves. Glaze mixing, alternative glazing and firing techniques are introduced. Students complete written documentation of the creative process as well as create and maintain a digital portfolio of completed work.

**CERAMICS IV** **Grades 11, 12** **2 ½ Credits**  
**PREREQUISITE: Successful completion of Ceramics III and/or portfolio review**

This class will allow the student to continue their exploration of the medium of ceramics. They will focus on applying a high level of personal symbolism into the design to their own work as they explore and develop a personal style. Further exploration of alternative firing techniques such as raku or smoke firing. Students are responsible for contributing to studio work, are required to keep a sketchbook for notes, complete written documentation of the creative process and create and maintain a digital portfolio of completed work.

**SCULPTURE** **Grades 10, 11, 12** **2 ½ Credits**  
**PREREQUISITE: Art I**

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/MIXED MEDIA** **Grades 10, 11, 12** **2 ½ Credits**  
**PREREQUISITE: Art I**

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 and an exploration of multiple media & materials on one surface. The course covers mono-printing, relief printing, and intaglio to be used as the base image for more media and materials. The elements and principles of design are emphasized to build upon each student's visual knowledge base.

**VISUAL JOURNALING** **Grades 10, 11, 12** **2 ½ Credits**  
**PREREQUISITE: Art I**

Visual Journaling is a way to express and record life experiences, emotions and ideas using imagery and words. Developing a Journal/Sketchbook is the major component of this course. Students will utilize a variety of wet and dry media and experimental techniques to create mixed media journal pages. They will collect materials to collage, construct several handmade journals, explore bookbinding techniques and papermaking. Visual Journaling is a key component to art making and to the artist's creative process.

**COLOR & DESIGN** **Grades 10, 11, 12** **2 ½ Credits**  
**PREREQUISITE: Art I**

Students in this class will gain a deeper understand of design and color theory and how it relates to perception, perspective and art history. Students will explore and analyze color, how colors affect one another, their optical and emotional effects. The elements and principles of design are utilized to create well composed works of art. Through various assignments students make use of mediums including cut paper, paint, printmaking and pastel. This class is required to keep a sketchbook for notes, complete written documentation of the creative process and maintain a digital portfolio of projects created throughout the course.

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

**PREREQUISITE: Art I & Teacher Recommendation**

This course will introduce students to black & white fine art photography and the essential procedures for understanding the photographic process. The focus of this course will include the history of photography, technical aspects of using a digital camera in full manual mode, digital editing programs, computer printing skills, and applying the elements & principles of design to each photographic image. Historical and contemporary photographers will be studied and applied to student work. Students will be required to keep a digital visual library for researching class assignments.

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

**PREREQUISITE: Successful completion of Photography I**

This course is for students interested in furthering their technical and conceptual knowledge of fine art photography. The emphasis of this course is placed on introducing conceptualism to expand upon original ideas. Students will be introduced to color photography, demonstrate technical competence of the manual camera, continue to refine computer printing techniques, and produce a photography portfolio. Historical and contemporary photographers will continue to be studied and used to inform student ideas. Students will be required to keep a digital visual library for researching class assignments.

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

**PREREQUISITE: Photography II, Teacher Recommendation and Portfolio Review**

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 beyond high school. Students will expand upon digital editing programs, advanced lighting techniques, and conceptualism. There is also an introduction to traditional darkroom techniques; pinhole camera, film camera, and darkroom printing. They will be required to create a year- long personal portfolio as well as weekly shooting assignments, still-life, portraiture and product shots. Students will be required to keep a digital visual library for researching class assignments and are required to create and maintain an online portfolio of photographs created throughout the year.

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

**PREREQUISITE: Two years of high school art and/or 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

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

**PREREQUISITE: Art I**

Through the use of current techniques in design, editing and writing, students will assist in the production of their yearbook, the ECHO. Students will learn essential photography and graphic design skills to enhance the yearbook design. Students will also learn about writing in journalistic style to produce yearbook captions and stories. Also included in this course will be the business side of publishing, from budgeting to advertising sales as well as general business practices. Students will have the satisfaction of helping to create a record of this year in high school history.

**PORTFOLIO DEVELOPMENT****Grades 11, 12****5 Credits****PREREQUISITE: Art II and/or Drawing & Painting and portfolio review**

In this art major class the focus is on development of a portfolio for college admission. Emphasis during the first half of the year is placed on observational drawing, skill development, self-expression and personal style. In the second semester student's research portfolio requirements, evaluate their body of work and develop an individual plan for completion of work which fulfills additional criteria and work toward that goal. Students examine various artists and artistic styles, complete written documentation of the creative process as well as create and maintain a digital portfolio of completed work. Summer drawing projects required.

**AP ART STUDIO****Grade 12****10 Credits****PREREQUISITE: Portfolio Development, Teacher Recommendation and portfolio review**

The Advanced Placement Studio Art course provides highly motivated, seriously committed students with a college-level visual art experience. Instruction will be individualized to the student's area of interest. Quality of work, demonstration of proficient knowledge of techniques and materials, experimentation of new ideas and approaches, and the creation of a body of work based upon particular interests and ideas expressed visually will be the focus of the course. Portfolio preparation and evaluation, career information, critiques and independent study are emphasized. Portfolios are submitted to the College Board for evaluation at the end of the school year. Summer projects are required.

## WORLD LANGUAGES

As technology, communication and business internationalize many aspects of our lives, mastering a second language is an increasingly valuable skill. Many colleges require a minimum of 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 for all students.

At Roxbury High School a student may elect to study French and/or Spanish. A four-year sequence is available in grades 9-12 for both languages. Honors level begins in the second year for both languages. "B" level classes are offered in Spanish levels 1 - 3. Advanced Placement courses are offered in both French and Spanish.

### **FRENCH I A** **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, listening, 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: Outstanding achievement in French I A with teacher recommendation and outstanding performance on Benchmark Assessments.**

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, listening 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 French-speaking countries in greater depth.

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

**PREREQUISITE: Successful completion of French I A with teacher recommendation and successful performance on Benchmark Assessments.**

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, grammatical structure, and speech patterns. The student will continue to study and appreciate the culture, geography and history of French-speaking countries.

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

**PREREQUISITE: Outstanding achievement in French II Honors with teacher recommendation and outstanding performance on Benchmark Assessments.**

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

**PREREQUISITE: Successful completion of French II A, with teacher recommendation and successful performance on Benchmark Assessments.**

The objective of this course is to further refine and develop communication skills, both oral and written. The grammatical concepts learned in French I and II 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 10, 11, 12** **5 Credits**  
**PREREQUISITE: Outstanding achievement in French III Honors with teacher recommendation and outstanding performance on Benchmark Assessments.**

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** **Grades 11, 12** **5 Credits**  
**PREREQUISITE: Outstanding achievement in French IV Honors or in French III Honors with teacher recommendation and outstanding performance on Benchmark Assessments.**

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.

**SPANISH I** **Grades 9, 10, 11, 12** **5 Credits**  
**PREREQUISITE: Teacher recommendation.**

This course is designed to introduce the student to the four basic skills of language study: listening, speaking, reading, and writing. Students will explore basic pronunciation, vocabulary, grammar, and culture. Much emphasis is placed on communication and language skill building. The student will also develop an appreciation for the culture and traditions of Spanish-speaking countries.

**SPANISH COMMUNICATION & CULTURE** **Grades 9, 10, 11, 12** **5 Credits**  
**PREREQUISITE: Teacher recommendation.**

This course is designed for the student who may require additional preparation before enrolling in a sequential language program. This **one year**, five-credit course enables the high school student to complete the NJ State graduation requirement for World Language study, while meeting the state standards. The curriculum for this class, which emphasizes basic Spanish conversation and culture, fulfills the language requirement for a high school diploma. With successful performance in this course and with teacher recommendation, the student may subsequently enroll in a Spanish IB class.

**SPANISH II HONORS** **Grades 9, 10, 11, 12** **5 Credits**  
**PREREQUISITE: Outstanding achievement in Spanish IA with teacher recommendation and outstanding performance on Benchmark Assessments.**

This level is designed for those students who have demonstrated advanced language skills and possess the self-discipline, motivation and interest to engage in rigorous language exploration. This course will continue to develop the four basic skills of language learning: listening, speaking, reading, and writing. The student will develop an extensive vocabulary, increase ability to communicate in writing and orally, improve comprehension of the written and spoken language, and expand knowledge and appreciation of Hispanic culture.

**SPANISH II A** **Grades 9, 10, 11, 12** **5 Credits**  
**PREREQUISITE: Successful achievement in Spanish I A with teacher recommendation and successful performance on Benchmark Assessments.**

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

**SPANISH II B** **Grades 9, 10, 11, 12** **5 Credits**  
**PREREQUISITE: Successful completion of Spanish I, with teacher recommendation and successful performance on Benchmark Assessments.**

Grammar, vocabulary, and speaking skills build upon the previous year's accomplishments. Active communication is emphasized. The student will continue to study and appreciate the culture, geography, and history of Spanish-speaking nations.

**SPANISH III HONORS** **Grades 10, 11, 12** **5 Credits**  
**PREREQUISITE: Outstanding achievement in Spanish II Honors with teacher recommendation and outstanding performance on Benchmark Assessments.**

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 rigorous language exploration. 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.

**SPANISH III A** **Grades 10, 11, 12** **5 Credits**  
**PREREQUISITE: Successful achievement in Spanish II A with teacher recommendation and successful performance on Benchmark Assessments.**

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: Successful completion of Spanish II B, with teacher recommendation.**

Spanish vocabulary, grammar, culture, listening and speaking skills are built upon the previous year's accomplishments. Active communication is emphasized. Students will continue to study and appreciate Hispanic culture, geography, and history.

**SPANISH IV HONORS** **Grades 10, 11, 12** **5 Credits**  
**PREREQUISITE: Outstanding achievement in Spanish III Honors with teacher recommendation and outstanding performance on Benchmark Assessments.**

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 rigorous language exploration. 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 A****Grades 10, 11, 12****5 Credits****PREREQUISITE: Successful achievement in Spanish IIIA, with teacher recommendation and successful performance on Benchmark Assessments.**

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****Grades 11, 12****5 Credits****PREREQUISITE: Outstanding achievement in Spanish IV Honors, with teacher recommendation and outstanding performance on Benchmark Assessments.**

This course covers the equivalent of a third year college course in advanced language acquisition. 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**

### **(STEP) STUDENT TRANSITION EMPLOYMENT PROGRAM**

**Grades 10, 11, 12**

**5 Credits**

The Roxbury High School STEP program provides special education students the opportunity to gain work related skills and experience in a supervised environment. The focus of this program is to provide exposure to various careers and develop post-secondary workplace readiness skills including: personal responsibility, self-initiation, commitment and the understanding of employment ethics.

### **SPECIAL SERVICES**

Roxbury High School offers a wide continuum of placement and program options that assist in the delivery of the Individual Education Plan developed by the Child Study Team in coordination with the students' family. Academic programing is supported by a variety of related services including: counseling, speech, occupational therapy, and physical therapy. The goal of an integrated population throughout the building is of the utmost importance to all staff and administration.

## SHARE TIME CAREER AND TECHNICAL PROGRAMS

20 credits

### *Grades: 11 and 12*

Morris County School of Technology provides students the opportunity to receive daily career and technical 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 publicly-supported specialized career and technical training.

### **Minimum Requirements:**

1. Be enrolled as a 10<sup>th</sup> or 11<sup>th</sup> grader in the home high school. Ninth graders may be considered for career and technical courses on an individual basis.
2. Have an acceptable academic, attendance and behavior record in the home school.
3. Parent/Student submits online application and signs Parent Release Form to be handed in to home school counselor.
4. Counselor submits high school section of the application.
5. Applicant has a sincere interest and sufficient motivation to succeed in the chosen program.
6. Applicant possesses sufficient maturity to work in a shop setting.

### **Application Process:**

A student interested in applying to a Share Time program should submit an online application at [www.mcvts.org](http://www.mcvts.org) and provide home school counselor with signed Parent/Guardian Release Form. Counselor will complete high school portion of application for applicant. **Applications will be available December 2015 with a deadline of March 31,2016.**

The high school counselor will provide the following required information:

1. High School transcripts
2. PARCC or Private School equivalent
3. Child Study Team records or 504 Plan if applicable
4. Attendance Data
5. Discipline Data
6. Parent/Guardian Release Form
7. Math and English teacher recommendations

Parent/Guardian will be contacted by Morris County School of Technology to schedule an interview for qualifying applicants. **It is important that accurate, current email addresses be provided in the application for both the counselor and parent, as all correspondence will be via email.** Questions regarding the application process should be directed to Gina DiDomenico, Student Recruitment at 973-627-4600, Extension 277 or questions regarding programs to Stephen Ward, Guidance Counselor, at 973-627-4600 extension 228.

### **Academic Infusion Program:**

Students are enrolled in Applied Mathematics or Applied Science in Career and Technical Programs in which academic credit is available. Students receive 15 credits for their career and technical course and 5 credits for applied mathematics and/or science. It is at the home school's discretion to determine how credit will be applied in the resident district. These courses are taught collaboratively by a Mathematics or Science instructor and CTE instructor and represent a minimum of 120 hours of instruction. Instruction is based on Mathematics or Science skills that have been identified as necessary for a success in a given area. These skills were identified in collaboration with business and industry as being necessary for employability and success in the workplace. Students receive classroom instruction and also apply these skills in a laboratory setting in each occupational area. These are not comprehensive Math or Science courses designed to prepare students for End-of-Course examinations.

## MATHEMATICS AND SCIENCE INFUSION PROGRAM

Credit Awarded

PROGRAM	READING LEVEL	CREDIT	DESCRIPTION	
			Year 1	Year 2
Auto Body I, II (Special Needs & Regular)	5/6	5	Science	No academic credit
Auto Service Tech I, II (SpecialNeeds&Regular)	6/7	5	Science	Math
Building Construction	2/3	5	Math	Math
Building/Grounds Maintenance	2/3	5	Math	Math
Carpentry	5/6	5	Math	Math
Computer Drafting & Graphics	7/8	5	Math	No academic credit
Cosmetology I, II	7/8	5	No academic credit	Science
Electrical Trades	8	5	Science	Math
Food Services	4/5	5	No academic credit	Math
Plumbing	7/8	5	Science	Math
Retail Supermarket	2/3	5	Math	Math
Welding	8/9	5	Science	Science

### SHARE TIME PROGRAMS

#### AUTO BODY/COLLISION REPAIR

*Grades: 11-12 (Two Year Program)*

Within this two-year program, students will study basic auto body and structural repair, restoration, estimating, formula paint mixing and custom painting. Additional units of study include welding, metal and plastic repair, and process of paint preparation. The hands-on program provides the opportunity and experience to work in an industry standard shop with the use of all tools and materials. Graduates are employed as auto body technicians, collision repair technicians, painters, or pursued a post-secondary education.

#### AUTOMOTIVE SERVICE TECHNOLOGY I and II

*Grades: 11-12 (Two Year Program)*

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. Students are trained by ASE certified instructors in the areas of basic automotive systems, electrical systems, braking systems, engine performance, and steering and suspension for ASE test preparation. Graduates are employed as mechanics, specialty technicians, and managers or pursued a post-secondary education

#### CARPENTRY

*Grades: 11-12 (Two Year Program)*

Within this 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 comprehensive understanding of the aspects of residential home construction 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 or 12 (Two Year Program)***

In this 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 AutoCAD® software, and introduces the student to advanced techniques such as 3D Design. The second year students study skills in advanced customization and photo-realistic graphics and animation techniques utilizing 3D Studio Design software. Graduates are employed as designers, 3D modelers/animators, drafters (blueprint) or pursued a post-secondary education.

## **COSMETOLOGY**

### ***Grades: 11-12 (Two Year Program)***

Within this two-year program students become eligible for the NJ Board of Cosmetology State Licensing Examination. Units of instruction include hair care, styling, perms, nail care, skin care and massage, waxing, coloring and barbering. Second year students operate a clinic to learn customer service relations and shop management. Graduates are employed as cosmetologists, hairstylists, hair color specialist, makeup artist, beauty care marketer/consultant, or pursued a post-secondary education.

## **ELECTRICAL TRADES**

### ***Grades: 11-12 (Two Year Program)***

This two-year program covers residential and commercial wiring, motor controls, as well as telecommunication, computer installations, low voltage wiring, and fire and burglar alarm systems. All of these trades overlap in scope and basis training and provide an excellent opportunity to obtain employment after graduation. Graduates are employed as electrical helpers, electricians, utility workers, entered apprenticeships, or pursued a post-secondary education.

## **PLUMBING**

### ***Grades: 11-12 (Two Year Program)***

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. In addition to design and installation of fixtures for bathrooms, kitchens and hot water heaters, units of study include blueprint reading, layout, troubleshooting, repair, and installations. Graduates are employed as plumber assistants, plumbers, pipefitters, entered apprenticeships or pursued a post-secondary education.

## **WELDING TECHNOLOGY**

### ***Grades: 11 or 12 (Two Year Program)***

This two-year program begins with the understanding of basic welding skills. Units of study include Plasma Arc Cutting (on aluminum, stainless and low carbon steel), Shielded Metal Arc Welding (fillet and V-groove welds in low carbon steel), Gas metal Arc Welding (fillet welds on low carbon steel), Oxy/fuel gas cutting and introduction to print interpretation. In 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. Qualified students will have the opportunity to pursue the AWS Entry-Level Welders' certification. Graduates are employed as welders, pipefitters, machinists, fabricators or pursued a post-secondary education.

## **SHARE TIME PROGRAMS FOR STUDENTS WITH SPECIAL NEEDS**

The Morris County School of Technology is committed to serving students with special needs. Accordingly, six programs are dedicated to meet these needs for students requiring self-contained classroom settings. The programs respond to industry requirements and are designed to equip the student with the skills he/she will need for 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.

### **AUTO BODY/COLLISION REPAIR**

#### ***Grades: 10-12 (Two Year Program)***

Within this two-year program, students begin with the study of basic auto body repair procedures, restoration, painting, welding, panel replacement, and the use of all tools and materials in an industry standard shop. Graduates are employed as prep technicians, technicians, painters, or pursued a post-secondary education.

### **AUTOMOTIVE SERVICE TECHNOLOGY**

#### ***Grades: 10-12 (Two Year Program)***

As modern automotive service technicians, students will develop the skills to perform service and automotive maintenance. Basic and specialized automotive courses will help students develop a solid foundation in the fundamentals of automobile components and how they work, system by system air filtration, cooling system, engine service, fuel system services, and tire rotation through intense applied instruction in the classroom and in laboratory. Graduates are employed as mechanics, service technicians, or pursued a post-secondary education.

### **BUILDING CONSTRUCTION**

#### ***Grades: 10-12 (One or Two Year Program)***

This one or two year program provides hands-on training in all phases of the residential construction industry. Instruction begins with the proper use of hand and power tools followed by building theory. Units of study include carpentry, electrical wiring, plumbing, sheet rocking and roofing. Upon completion of one year, qualified students may elect to pursue further training in carpentry, electrical, plumbing or welding for their second year of the program. Graduates are employed as entry level technicians in all phases of construction or pursued a post-secondary education.

### **BUILDING & GROUNDS MAINTENANCE SERVICES**

#### ***Grades: 10-12 (One or Two Year Program)***

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. Additional units of study include: Black Seal Low Pressure Boiler Operations, Materials Handling and Fork Lift Operations. Qualified students may sit for the Black Seal Low Pressure Boiler Operators State Licensing exam and/or the OSHA Fork Life Operations 10 Hour Certification. Graduates are employed as maintenance or custodial personnel, repair workers, landscapers, painters, or pursued a post-secondary education.

## **FOOD SERVICES**

### ***Grades: 10-12 (One or Two Year Program)***

This two year program focuses on a wide range of skills necessary to enter into the food service industry. Students begin with food safety, sanitation, and basic food preparation. Further units of study will include methods of cooking, menu planning and hot/cold food preparation, in addition to food identification, introduction to bakery, and table service. Hands-on experience in an industry standard kitchen and formal dining area provides students with a practical learning environment. Graduates are employed as prep cook, pantry cook, dietary assistant, baker assistant, bakery clerk, cake decorator or pursued a post-secondary education.

## **RETAIL/SUPERMARKET CAREERS**

### ***Grades: 10-12 (One or Two Year Program)***

Our hands-on program provides specialized opportunities for students interested in pursuing occupations in the retail and/or supermarket industries. Students in our program will learn about supermarket and retail business operations, product placement and display design, food safety and sanitation procedures, customer service skills, money handling skills, cash register operations, general produce knowledge, proper grocery bagging techniques and how to operate a small scale bakery. Students directly apply their knowledge and skills in practical experiences in the MCST Supermarket, which is open to our campus community. Additionally, students in our program acquire the life skills of resume development, successful job interview techniques and the knowledge of proper business attire. The students demonstrate their workplace readiness skills as members of the high school marketing organization, DECA (Distributive Education Clubs of America). DECA sponsors regional, state and national level opportunities for students to compete in events centered on retail/supermarket careers, as well as many other areas of business and marketing. Graduates are employed as department personnel in bakery, deli, meats and seafood, customer assistant clerk, retail assistant or pursued a post-secondary education.

# *NOTES*