

ROCKLAND HIGH SCHOOL  
ROCKLAND, MASSACHUSETTS  
2017-2018

**PROGRAM OF STUDIES**

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## **Principal's Message to Parents, Guardians and Students**

Choosing high school courses is a major life decision and should be a cooperative effort involving students, parents, counselors, teachers, and administrators. All must participate in order to develop a Program of Study that will take into account the student's interests, achievements, academic ability, and career goals. Reading the Program of Studies with great care will help to ensure a smooth start to the school year in September.

At Rockland High School, the course selection process begins with the presentation of the Program of Studies. For leveled classes, teachers make their recommendations to help insure that students are appropriately challenged. After viewing their teachers' recommendations, students will electronically submit course requests. Parental input and approval of the choices are important. Following the submission, students will meet individually with their counselors to review and finalize their course requests. Following this meeting, a copy of the course-verification worksheet will be sent home for final review. Parents should carefully review the course verification sheet to see that the courses and levels are correct. If a change is requested, it is important to contact your student's counselor promptly. This is the last opportunity parents and students have to make changes that the school can reasonably be assured of honoring.

The Administration reserves the right to withdraw a course offering if a reasonable number of students do not elect the course or if staffing is not available. When a course is oversubscribed, priority for enrollment will be given to seniors, then juniors, etc. Students who are unable to be enrolled in a course will be offered alternative courses, if such courses are available. While we hope to offer as many of the courses in this Program of Studies as possible, the actual course offerings will depend on budget and staffing.

We build the entire schedule and assign faculty based on information we receive from students and parents in the winter and spring about course choices. Usually we can accommodate changes that are submitted during the spring. However, requests for changes after that time will only be honored after school personnel have carefully considered the reason for the proposed changes and only if space and resources are available. Requests for changes such as disliking a course, underestimating the course expectations, selecting or deselecting a specific teacher, wishing to take an easier course, not realizing what the course would be like, or wanting to be in a class with friends, are inappropriate reasons for a schedule change and will not be honored. This policy has been developed to prevent staffing, scheduling, and numerous other problems that can result from late schedule changes. Once the school year has begun, schedule conflicts, oversubscription, and other factors may make certain courses unavailable. We cannot stress enough importance of carefully considering and selecting courses in the spring. Avoid schedule problems in the summer and fall by making wise, thoughtful choices now. Thank you!

Sincerely,

John Harrison  
Principal

January 2017

# **Rockland Public Schools**

## **Mission Statement**

The mission of the Rockland Public Schools is to ensure that all students develop the necessary skills to think critically, to communicate effectively and to act responsibly and attain their highest potential.

# **Rockland High School**

## **Vision Statement**

As we move towards the future, our vision is to foster a community of 21<sup>st</sup> century learners who actively seek knowledge and demonstrate global awareness.

## **Mission Statement**

The primary purpose of Rockland High School is to prepare each student to learn, to grow, and to thrive in the 21<sup>st</sup> century. The administration, faculty, staff, and community work together to provide opportunities for student growth. Through an integrated curriculum, students are given opportunities to acquire knowledge and skills that will develop their potential as active life-long learners.

## **Expectations for Student Learning**

All Rockland High School students will:

1. Solve problems using creative and critical thinking
2. Use research and technological skills to locate, access, organize, evaluate, and present information
3. Communicate effectively
4. Participate in service learning and community service opportunities
5. Practice personal wellness

## **Core Values and Beliefs**

At Rockland High School, we espouse the following values which shape and guide all our educational practices:

1. We promote critical thinking
2. We value effective communication
3. We believe technology enriches student learning
4. We value collaborative learning
5. We respect diversity
6. We believe physical wellness is a part of a rewarding lifestyle
7. We believe an aesthetic education benefits all students
8. We believe all students deserve an equitable education
9. We promote high expectations and a rigorous curriculum
10. We believe students should be active participants in their own learning

## GENERAL INFORMATION

The Program of Studies is intended to give parents and students information to:

- increase understanding about what the school offers
- develop an awareness of the programs and resources that are available
- increase understanding of how to make decisions about these resources and indicate who is available for consultation
- clarify basic requirements for planning and scheduling a program and for becoming eligible for graduation
- describe what can be done if a problem develops with a program
- identify the various record systems of the school: attendance, formal records, and reports of performance.

**Graduation Requirements** – Each student in grades 9-12 must carry a minimum of 6 credits. Seniors carrying three or more Advanced Placement (AP) courses are required to carry a minimum of 5 credits. Massachusetts “Time on Learning” guidelines require that all students be scheduled for 990 hours of instructional time annually; therefore, students who enroll in fewer than 7 credits of coursework will be assigned to a directed study to complete their “instructional time” requirements. The purpose of a directed study is to work on curriculum-related materials under the supervision of a teacher. It is expected that students will use the opportunity to work on any unfinished class work and strengthen their understanding of academic knowledge. Directed studies are held in classroom spaces under the direction of a licensed teacher.

**Credits** – To receive a Rockland High School diploma, all students must earn 22 credits; pass the (\*) MCAS in English/Language Arts, Mathematics, and one science area; complete a minimum of 25 hours of pre-approved community service and meet attendance requirements as stated in the Student Handbook. Credits are earned at the successful completion of a course as follows:

- 2 credits - courses that meet 10 times a week for a full year
- 1 credit - courses that meet 5 times a week for a full year
- 1/2 credit - courses that meet 5 times a week for a half year

Please note: All grade 12 students must pass the equivalent of 4 credits in their senior year. Students who do not meet all requirements will not be allowed to participate in graduation. The graduation ceremony is considered the final school activity for seniors. Therefore, all school regulations pertaining to a school activity apply to the graduation ceremony.

(\*) MCAS - Massachusetts requires all high school students to pass a series of standardized tests in English, math and science as a condition of graduation. The tests, called the Massachusetts Comprehensive Assessment System (MCAS) have been phased in since 1993. In both English and Language Arts, students must meet or exceed the Proficient scaled score of 240 on the 10<sup>th</sup> grade MCAS tests, or meet or exceed the Needs Improvement scaled score of 220 on the tests and fulfill the requirements of an Educational Proficiency Plan. In science, students must score at least a scaled score of 220 on one of the Biology, Chemistry, Introductory Physics, or Technology/Engineering MCAS tests.

Any student earning a 220 to 238 on the Math or ELA test will be placed on an \*Education Proficiency Plan. This will require the student to take additional courses and/or tests in the content area in which they do not meet the passing score. Students failing to meet the minimum score of 220 will be placed on an Individual Student Success plan to help them meet the passing score. This plan will require students to attend MCAS remediation course offered throughout the year.

**Grade placement** is determined by the number of credits earned as follows:

- 5 credits to be a Sophomore (Grade 10)
- 10 credits to be a Junior (Grade 11)
- 15 credits to be a Senior (Grade 12)
- 22 credits to Graduate

**Distribution Requirements** – In addition to general course load requirements noted above, there are certain required course credits that must be earned in grades 9-12. Certain distribution requirements must be fulfilled for graduation. All students must earn at least the following credits:

- 4 credits in English (Including Introduction to Literature and Literary Forms)
- 3 credits in Mathematics
- 3 credits in History (2 credits US, 1 credit World)
- 3 credits in Science
- 2 credits in Physical Education/Health (students are required to take PE/Health for one semester each year)

Under Chapter 766 of the General Laws of Massachusetts, a Core Evaluation Team (C.E.T) may waive a requirement to graduate by stating so on a student’s Individual Educational Plan (IEP).

**Homework** is assigned according to the type and level of the academic program. While some homework may be completed in study periods, out-of-school time must be spent on homework to derive maximum benefit from the academic program. The amount of homework assigned for subjects that meet on average 5 times per week should be approximately thirty minutes per night. Thus high school students should expect to spend between two and three hours per night on homework. This does not pertain to advanced placement courses.

**Course Levels** – It is important to understand how courses in certain departments are organized. Where levels exist, classes tend to be more homogeneous in terms of student ability and achievement levels in the subject. Course levels are designed to maximize each student’s potential by presenting challenging course work at an appropriate level and pace. As part of the course selection process, teachers will make level recommendations for students in English, mathematics, science, social studies, and world language classes. Parents are strongly encouraged to discuss level recommendations with your child’s teacher before requesting level changes.

**Advanced Placement (AP)** – AP courses provide students the opportunity to take college-level courses while still in high school. AP courses are recommended for students who have demonstrated exceptional academic achievement. AP supports the development of strong writing skills, problem-solving techniques, and study habits essential for college academics and provides an advantage to those students who successfully complete an AP course. These courses involve considerable enrichment and acceleration as well as extensive homework. Summer reading and/or projects requirements are an integral part of each course. To receive AP credits, the AP exam must be taken; a fee is required for each examination (approximately \$100/exam; reduced fee for students receiving free or reduced lunch). ALL students who enroll in AP courses are required to register for and take the AP exam.

Most colleges and universities in the United States (as well as thirty other countries) award college credit and/or advanced placement through qualifying AP exam scores. This allows students the possibility of moving into upper-level courses, pursuing a double major, or gaining time to study abroad while in college.

The following subjects have been offered at the AP level:

- Art
- Biology
- Chemistry
- Environmental Science
- Physics
- Calculus
- Statistics
- English Literature
- English Language and Composition
- U.S. History
- Micro-Economics
- Psychology

**Honors** – Honors courses are accelerated and require above average past achievement, and/or high interest in the general subject area. Students must be able to work independently and to complete a considerable number of comprehensive assignments requiring advanced skills.

**College Prep** – College Prep courses will prepare students for all colleges and universities except those listed in *Barron's Profiles of American colleges* as most competitive. These courses require a strong commitment to high academic standards and daily completion of extensive homework is expected.

**Unleveled** – Most courses in the areas of physical/health education, fine and applied arts have no level designation. Many other departments also offer courses that are unleveled. As such, they do not count in the computation of class rank/grade point average. This is done purposely to encourage all students to take those courses based on their interests, talents and career goals.

**Developing a Schedule** – Schedule a program with the present AND the future in mind. Make decisions carefully and take advantage of all available assistance. Guidance counselors assist students in developing an individualized four year plan of study that takes their vocational and personal interests, and post-high school plans into consideration. Individual conferences can be scheduled to complement group guidance counseling. Guidance counselors also interpret standardized test results, assist in all aspects of future planning, provide help with personal/social concerns, coordinate support and intervention strategies for students in need of assistance, and make referrals to other agencies.

**Scheduling Guidelines** – To assist students in planning programs, we offer the following broad guidelines. Specific schools have specific requirements, and these may be obtained by looking at college catalogs. It is strongly recommended that each student's program include an applied arts experience (Business/Technology, Family and Consumer Sciences, Industrial Technology) and a fine arts experience (Art, Music).

## MASSACHUSETTS STATE COLLEGE AND UNIVERSITY REQUIREMENTS

Beginning with the class of 2016, four years of mathematics is required for acceptance to any Massachusetts state college or university. Beginning with the class of 2017, three years of a lab science will be required for acceptance to any Massachusetts state college or university. In addition, a **minimum** of 2 years of one foreign language is required for admission to any Massachusetts state college or university.

**UMass and State College Minimum GPA Requirements:** The minimum average GPA for freshman applicants, weighted for accelerated (Honors and Advanced Placement) courses, is 3.0 for both the state universities and the UMass undergraduate campuses. This GPA is based on all courses completed and grades received for courses in which the student is currently enrolled (for example, mathematics courses in which the student is enrolled during the senior year of high school).

All freshman applicants who meet the minimum average GPA requirement of 3.0 and are within three years of their high school graduation must submit their SAT scores (for Critical Reading and Mathematics) or ACT scores.

**SAT/ACT Score requirements for applicants who do not meet the GPA requirement:** For freshman applicants who do not meet the minimum GPA requirement, they must earn the following SAT or ACT scores in order to be eligible for admission.

**NOTE: NO APPLICANT WITH A HIGH SCHOOL GPA BELOW 2.0 MAY BE ADMITTED TO A STATE UNIVERSITY OR UMASS UNDERGRADUATE CAMPUS.**

**Table 2: Required SAT or ACT Scores for Freshman Applicants to UMass Undergraduate Campuses**

Weighted Average GPA	Combined SAT Score (Critical Reading and Mathematics)	ACT Score
2.51 - 2.99	950	20
2.41 - 2.50	990	21
2.31 - 2.40	1030	22
2.21 - 2.30	1070	23
2.11 - 2.20	1110	24
2.00 - 2.10	1150	25

**Table 3: Required SAT or ACT Scores for Freshman Applicants to State Universities**

Weighted Average GPA	Combined SAT Score (Critical Reading and Mathematics)	ACT Score
2.51 - 2.99	920	19
2.41 - 2.50	960	20
2.31 - 2.40	1000	21
2.21 - 2.30	1040	22
2.11 - 2.20	1080	23
2.00 - 2.10	1120	24

**Applicants who are English Language Learners (ELL)** - An English language learner or limited English proficient student is defined as a student who does not speak English (or whose native language is not English) and is not currently able to perform ordinary classroom work in English, or a student who was identified as an English language learner or limited English proficient student at any point during his or her high school career. Students who were English language learners during high school must complete all required high school level academic courses with two exceptions:

1. They may substitute up to two electives for the two required foreign language courses; and
2. They may substitute up to two years of English as a Second Language courses for English courses.

**Applicants with learning or other disabilities** - Applicants with professionally diagnosed and documented learning disabilities (documentation must include diagnostic test results) are exempt from taking standardized tests for admission to any public institution of higher education in the Commonwealth. However, these applicants must complete all required academic courses and earn a minimum average GPA of 3.0 or present other evidence of the potential for academic success.

Note: An applicant with learning or other disabilities may substitute two electives for the two required foreign language courses if s/he has submitted to the high school the results of an evaluation, completed within the past three years, that indicates a specific diagnosis of a learning disability that affects the ability to learn a foreign language.

The preparation for **THE MOST COMPETITIVE COLLEGES** should include Honors and Advanced Placement courses. Planning for these courses must begin with the selection of courses for grades 9-11.

If a student is planning to go to a **four-year liberal arts college**, consider electing:

- 4 years of English
- 4 years of mathematics
- 4 years of science
- 3 or more years of social studies (U.S. History is required)
- 3 or more years of one foreign language.

If a student is planning to go to a **science or an engineering college**, consider electing:

- 4 years of English
- 4 years of mathematics
- 4 years of science (including biology, physics, and chemistry)
- 3 or more years of social studies (U.S. History is required)
- 3 or more years of one foreign language.

If a student is planning to **pursue a major in business administration of information technology**, consider electing:

- 4 years of English
- 4 years of mathematics
- 4 years of science
- 3 years of social studies (U.S. History is required)
- 3 or more years of one foreign language

- The full range of courses offered in the Business/Technology Department.

If a student is planning to **pursue a degree program in nursing**, consider electing:

- 4 years of English
- 4 years of mathematics (including algebra)
- 4 years of science (including biology and chemistry or anatomy and physiology)
- 3 years of social studies (U.S. History is required)
- 3 or more years of one foreign language.

If a student is planning to pursue a degree program in the **fine or performing arts, applied arts or the trades**, in addition to the required subjects, consider electing as many courses as possible in the field of specialization.

### Course Scheduling

- All students are required to take the equivalent of 6 subjects at all times
- Except for Required Courses, subjects that are failed may be repeated only once
- A student may not elect a subject in advance of his grade level. Exceptions may be permitted for transfer students or for exceptionally talented students upon the recommendation of a guidance counselor and with the approval of the Principal
- Students are required to take Physical Education/Health each year for one semester. Students can be excused from Physical Education only with a medical excuse which must be renewed every year
- Without the specific permission of the Superintendent of Schools, a minimum enrollment of 12 students is required to schedule a class
- Students who do not maintain an honor roll grade (A, A-, B+, B, B-) will have the option to remove themselves from honors classes during the first and second marking periods, with parental approval and course availability
- Recommendations by teachers in English, Social Studies, Mathematics, Foreign Languages and Science will be made on students Subject Selection Charts.

**Schedule Changes** – Once the school year has begun, schedule changes will only be allowed for the following reasons:

- An obvious error in the schedule
- A change because of passing a failed course during summer school or outside of school.

Changes in class schedules are discouraged. However, a request for a change in schedule will be honored if the following circumstances are present:

- Problems created by the cancelation of an offering
- A teacher-initiated level change after the midpoint of the first term. Any action taken must have the approval of the department head, guidance counselor and parent
- Failing a course for the semester. This requires a written request from a parent, the approval of the teacher whose course you are failing and the approval of your guidance counselor. If the failing grade is due to poor attendance, inadequate class participation, failure to do homework or lack of effort, the request will not be approved.

Note: Other than those exceptions listed above, no changes will be made in a student's program after three weeks of the beginning of any course.

## **SPECIFIC PROGRAM INFORMATION**

### **The 3, 3.5, 4, 4.5, and 5 year graduation sequence:**

1. A student will be allowed to graduate after a 3, 3 1/2, 4, 4 1/2, or 5-year sequence, provided completion of the necessary requirements established for graduation.
2. Credit accumulation and the passing of required courses shall be the primary criteria for graduation eligibility.
3. Diplomas shall be the same regardless of the time.
4. Diplomas will be issued at the time of graduation. Only one graduation ceremony will be held each year at the end of the year. Graduates of the 3 1/2 or 4 1/2 year sequence will have the option of attending the graduation ceremony.
5. A student who plans to graduate after 3 years is required to declare his intentions at the end of his 2nd year. His class rank will remain with the class with which he entered (Grade 9).
6. A student who plans to graduate in 3 1/2 years would be required to declare his intentions at the end of his 3rd year.
7. All early graduates (3 or 3 1/2 years) must have approval of their parent or guardian and the high school principal. Early graduates do not qualify for valedictorian.
8. Students in the 5th year would not be required to carry a full program.
9. All 3 and 3 1/2 year candidates will meet with a screening committee for approval of their program.
10. A student may not qualify for valedictorian unless they have attended RHS for 3 years.

**Work-Study** - Work-Study allows a junior or senior to be in a work experience program consisting of a 5 period academic school day. Students can apply for Work-Study by filling out an application form with their guidance counselor. Students participating in after school activities or athletics may not participate in Work-Study.

**Dual Enrollment Opportunities** - An advanced academic program for high school juniors and seniors, this program allows qualified students to enroll in college courses and receive high school and college credit simultaneously. Students may enroll in courses at Bridgewater State College or Massasoit Community College at a reduced fee, pending funding by the Massachusetts Legislature. Dual Enrollment courses will not be included in a student's G.P.A. To qualify you must:

- be a high school junior or senior



- currently be maintaining a 3.0 GPA or better
- be recommended and approved by the high school principal and guidance chairperson
- have written approval by a parent or guardian
- pay for all books, fees, and supplies required for participation in that course, above state reimbursement
- arrange for your own transportation
- sign-up only for courses not available at the high school level.

**Vocational/Technical Education** - residents interested in applying to a vocational/technical program outside of Rockland High School should be aware of the following important dates:

**February 1** - Final date for submission to the Superintendent of Schools of applications for post-secondary vocational education.

**April 1** - Final date for submission to the Superintendent of Schools of applications for secondary (Grade 9-12) vocational education other than South Shore Vocational Technical School.

**April 15** - Final date for submission to the Principal of the Rogers Middle School for applications to South Shore Vocational Technical School.

## COURSE SELECTIONS

<b>DEPARTMENT</b>	<b>GRADE 9</b>	<b>GRADE 10</b>	<b>GRADE 11</b>	<b>GRADE 12</b>
<b>ART</b>	Foundations of Art & Design Photo. & Digital Imaging 3D Art-Ceramics & Sculpture Comic Book & Illustration 2D Art-Drawing, Painting & Mixed Media	Foundations of Art & Design Photo. & Digital Imaging 3D Art-Ceramics & Sculpture Comic Book & Illustration 2D Art-Drawing, Painting & Mixed Media Ind. Study Portfolio & AP Art	Foundations of Art & Design Photo. & Digital Imaging 3D Art-Ceramics & Sculpture Comic Book & Illustration 2D Art-Drawing, Painting & Mixed Media Ind. Study Portfolio & AP Art Adv. Art Thesis Project Dev.	Foundations of Art & Design Photo. & Digital Imaging 3D Art-Ceramics & Sculpture Comic Book & Illustration 2D Art-Drawing, Painting & Mixed Media Ind. Study Portfolio & AP Art Adv. Art Thesis Project Dev. Adv. Senior Art Thesis Project
<b>BUSINESS</b>	Intro. to Business	Intro. to Business Accounting	Intro. to Business Accounting	Intro. to Business Accounting
<b>DIGITAL MEDIA/ JOURNALISM</b>	Digital Media Production Digital Media Production II Journalism	Digital Media Production Digital Media Production II Journalism Public Speaking	Digital Media Production Digital Media Production II Journalism Public Speaking	Digital Media Production Digital Media Production II Journalism Public Speaking
<b>ENGLISH</b>	Intro to Literature	Literary Forms	American Studies AP English Language & Composition SAT Prep	AP English Literature Conversations in World Lit. SAT Prep
<b>FAMILY AND CONSUMER SCIENCE</b>	Exploratory Foods I Exploratory Foods II Sewing & Textile Arts	Exploratory Foods I Exploratory Foods II Sewing & Textile Arts Advanced Sewing & Textile Arts	Exploratory Foods I Exploratory Foods II Sewing & Textile Arts Advanced Sewing & Textile Arts Culinary Arts	Exploratory Foods I Exploratory Foods II Sewing & Textile Arts Advanced Sewing & Textile Arts Culinary Arts
<b>WORLD LANGUAGES</b>	French I Spanish I	French II Spanish II	French III Spanish III	French IV, V Spanish IV, V

DEPARTMENT	GRADE 9	GRADE 10	GRADE 11	GRADE 12
<b>MATHEMATICS</b>	Geometry (H) Algebra I	Algebra II Geometry	AP Statistics Pre-Calculus Algebra II SAT Prep	AP Calculus Calculus AP Statistics Statistics Algebra III Pre-Calculus
<b>MUSIC</b>	Band Chorus Music and Film	Band Chorus Music Theory & Aural Skills Music and Film American Popular Music & Social Issues	Band Chorus Music Theory & Aural Skills Music and Film American Popular Music & Social Issues	Band Chorus Music Theory & Aural Skills Music and Film American Popular Music & Social Issues
<b>HEALTH &amp; WELLNESS EDUCATION</b>	Freshmen Health	Physical Education	Physical Education	Physical Education Senior Issues
<b>SCIENCE</b>	Biology AP Biology Forensics & Biotechnology Evolution & Ecology	Chemistry ♦ AP Biology Forensics & Biotechnology Evolution & Ecology	♦ AP Biology *AP Environmental Science AP Physics Physics CP Forensics & Biotechnology Evolution & Ecology	Anatomy & Physiology AP Biology AP Environmental Science AP Physics Physics Earth Science Forensics & Biotechnology Evolution & Ecology
<b>HISTORY/ SOCIAL SCIENCE</b>	World History II Law Pop Culture	U.S. History I Law Pop Culture AP Microeconomics	U.S. History II A.P. U.S. History Psychology History and Film America and the World AP Microeconomics	A.P. Psychology Psychology History & Film America and the World AP Microeconomics
<b>CONSTRUCTION TECHNOLOGY</b>	Woodworking I Woodworking II Structures and Shed Design Everyday Repairs	Woodworking I Woodworking II Structures and Shed Design Everyday Repairs	Woodworking I Woodworking II Structures and Shed Design Everyday Repairs ♦Off-Site Construction Crew	Woodworking I Woodworking II Structures and Shed Design Everyday Repairs ♦Off-Site Construction Crew
<b>ENGINEERING</b>	Intro to Robotics	Intro to Robotics Robotics	Intro to Robotics Robotics Engineering 101	Intro to Robotics Robotics Engineering 101
<b>COMPUTER SCIENCE</b>	Computer Science I Computer Science II	Computer Science I Computer Science II	Computer Science I Computer Science II	Computer Science I Computer Science II

♦ AP Biology is an elective for students in Grades 10 + 11 and must be taken with concurrent courses – see page 19.

\* AP Environmental Science is an elective for Grade 11 students and must be taken with concurrent course – see page 20

♦ Off-Site Construction Crew is a two-credit course (two periods per day). Students must have instructor permission to enroll.

# COURSE DESCRIPTIONS

## ART

### **Foundations of Art & Design** (½ Credit) (Grades 9-12)

This exploratory course is designed for the “artist” and the “non-artist”. Students will be exposed to the history of art while making connections to contemporary art. Through the exploration of different materials and techniques, students will learn there are many different ways to be creative and redefine what it means to be “artistic”. Using the elements and principles of design, students will develop skills and techniques while exploring a variety of 2-D and 3-D materials: drawing, painting, printmaking, sculpture, and other mixed media art.

### **Photography & Digital Imaging** (½ Credit) (Grades 9-12)

In this beginning Photography course, students will learn about the history of photography and new contemporary methods of photography. Using the elements and principles of design students will discover new ways of taking pictures and manipulating images using traditional and non-traditional methods of photography. Students will learn 35mm film photography and darkroom processes, digital photography techniques, scanning, photo editing, color correction and photo manipulations using Iphoto and Adobe Photoshop in a Mac lab. (*Pre-requisite: Foundations of Art & Design*)

### **Comic Book & Illustration** (½ Credit) (Grades 9-12)

In this course students will learn about the history of American and Japanese comic book art. Students will learn the elements of comic book, original character development, figure drawing and how to draw realistic and cartoon faces. They will also learn how to make a storyboard and turn an original short story into an illustration and book. Students will finish the course by exploring different ways of showcasing their comic books online or in book form. (*Pre-requisite: Foundations of Art & Design*)

### **2D Art- Drawing, Painting & Mixed Media** (½ Credit) (Grades 9-12)

In this course students will learn about the history of 2-D art and what contemporary 2-D art looks like today. Students will explore a variety of 2-D materials and techniques in drawing, painting, collage and mixed media art. With an emphasis on the elements and principles of design, students will learn different representational and nonrepresentational drawing, painting and mixed media techniques. Students will explore new ways of making art by combining various 2-D art forms and also learn how to display their work in traditional and nontraditional ways. (*Pre-requisite: Foundations of Art & Design*)

### **3D Art-Ceramics & Sculpture** (½ Credit) (Grades 9-12)

In this course students will learn about the history of 3-D art and what contemporary sculpture looks like today. Students will use the elements and principles of design to turn a 2-D idea into a 3-D form. Students will learn basic hand building techniques using a variety of 3-D materials: paper, cardboard, tape, newspaper, wire, clay, foam, plaster, and recycled objects. Students will also learn how to collaborate and complete large scale group projects for public display. (*Pre-requisite: Foundations of Art & Design*)

### **Art Thesis Development/Senior Thesis Project** (1 Credit) (Grades 11-12)

In this advanced course, students will begin to find their own artistic voice through individualized instruction and a choice based curriculum. Students will learn how artists think and come up with ideas and develop an art thesis or series of works based on a theme. Students may also use this course to develop an art portfolio for college.

- Students in the **Art Thesis Development** course will develop a topic or area of interest to explore using a material and subject matter of their choice.
  - Each term they will be introduced to one new artist or given a theme to explore using their own subject matter and choice of material. (This will be interchangeable.)
  - Each term students will also be given a project of choice which they will decide on what theme, subject matter or material they will use.
  - By the end of the year, they will develop a thesis topic (area of interest) and what material they wish to explore in Senior Art Thesis.
- **Senior Art Thesis students** will make a proposal by the end of Term 1 for their final thesis project that will be due before they graduate.
  - Senior Art Thesis projects are not limited to the classroom. Projects could also include a portfolio, a series of artwork based on a theme, public art work, community service projects or teaching opportunities within the district. (*Pre-requisite: 2 years of art required or with Department Head permission*)

### **A.P. Art - Available in Drawing, 2-D Design, or 3-D Sculpture**

(2 year course) (Grades 11-12)

A.P. Art is a wonderful opportunity for the exceptionally gifted and dedicated art student. It is an experience designed to challenge students to go beyond what is normally required in a general art class or portfolio preparation course. A.P. Art students will create a large body of work that explores their own personal interests, choice of materials and reflects their own artistic voice. This course is highly recommended to any student who is serious about developing a portfolio and applying to art school. Due to the large amount of work required (24 pieces total); it is completed over a two year period. Students are required to sign up for A.P. Art by the spring of their sophomore year. A.P. Art Candidates will not receive A.P. credit unless the required amount of work is completed and sent to the College Board during the spring of their senior year. (*Pre-requisite: 2 years of art required or with Department Head permission*)

## BUSINESS

### **ACCOUNTING** (1 Credit) (Grades 10-12)

This course is an introduction to accounting. It is recommended for students who may choose accounting as a college major. Topics will include manual and computerized double entry bookkeeping systems. Accounting is a **Business elective and does not qualify as a Math credit**.

### **INTRO. TO BUSINESS** (½ Credit) (Grades 9-12)

This course provides the students with general knowledge of important business life skill topics. Life skills that will be discussed include financial goal setting, budgeting, investing, banking, insurance and credit.

### **WORK-STUDY** (1 Credit) (Grades 11 or 12)

This program allows students in good academic standing to leave school during the last period of the day to go to work. The program strives to equip students with enhanced employment skills. Topics include: assistance with job applications and are encouraged to prepare a resume, discuss employer/employee relationships, interviewing techniques, career plans, as well as technology in the workplace and other pertinent topics. Students who participate in after school activities, such as athletics, are not eligible for work-study. Students are required to meet with a work-study supervisor once each month, and submit pay stubs in order to receive credit. This is a pass/fail course.

## ENGLISH

### **INTRODUCTION TO LITERATURE** (1 Credit) (Grade 9)

Introduction to Literature is a course which includes the study of a wide range of literature. Major emphasis will be on the elements of fiction. Various literary techniques such as irony and figures of speech will be explored. In addition, the course will cover a variety of spoken and written experiences with emphasis on organization, development of content, and correctness of expression. When necessary, attention will be focused on development of reading skills and techniques, vocabulary comprehension, and fundamentals of grammar. A library orientation will be conducted and Library/Research assignments appropriate to course content will be stressed. This course is taught to all grade 9 students. *An Honors option is offered.*

### **LITERARY FORMS** (1 Credit) (Grade 10)

In Literary Forms the various forms of literature are studied and carefully examined for their unique characteristics. Genres such as the short story, novel, poetry, biography, and the essay will be read and discussed. Writing and speaking experiences will be related to the themes and general concerns of the literature read. Library/Research assignments appropriate to course content will be stressed. This course is taught to all grade 10 students. *An Honors option is offered.*

### **AMERICAN STUDIES** (1 Credit) (Grade 11)

American Studies is a course that explores the development and impact of American Literature from the Puritans to the twenty-first century. Two questions permeate the course and formulate a prevailing theme: what is the American identity and what is the "American Dream?" The course concentrates on developing critical analysis skills and academic writing.

### **AP ENGLISH LANGUAGE AND COMPOSITION** (1 Credit) (Grade 11)

This is a college-level course for highly motivated and academically talented juniors. The primary goals of the course, as stated in the College Board's Description, are to "enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers." Students will read and analyze a wide variety of texts, concentrating on nonfiction; write for a range of purposes and audiences; practice the skills of research, synthesis, summarizing, paraphrasing, quoting, and citing; improve their vocabularies and command of English grammar and syntax; and develop a greater understanding of both the writing process and rhetorical strategies. Articulate, precise, and engaging language will be encouraged and reinforced in writing assignments, oral presentations, and class discussions. The course is open to juniors who are recommended by their sophomore English teachers and who submit a letter committing to the course's workload and to taking the AP exam given in May.

### **CONVERSATIONS IN WORLD LITERATURE** (1 Credit) (Grade 12)

In this class, students will study some of the important questions found in literature. What is evil? Is there such a thing as fate? How has humanity changed through the ages? As a college preparatory course, students will review grammar and vocabulary and they will continue to enhance their writing skills, especially in the area of academic writing. Writing the college application essay will be a part of the curriculum as well as the completion of a senior project.

### **AP ENGLISH LITERATURE** (1 Credit) (Grade 12)

Advanced Placement English is a college-level course for the highly motivated and academically talented student. This course challenges students to attain critical writing and reading skills. This class studies classic and modern texts of British, American and European literature drawn from the sixteenth century to the present. Novels, short stories, essay, drama, and poetry will also be studied over the course of the year. Students are required to take the national AP Exam given in May in order to earn AP credit.

**SAT PREP** (½ Credit) (Spring - Grade 11, Fall - Grade 12) – This course is designed to be taken by juniors in the spring and seniors in the fall to prepare for the SAT exam. Students will apply all facets of the Verbal and Writing portion of the SAT exam including these critical areas: passage based critical reading, sentence and paragraph structure and vocabulary and essay writing. Focus will be on the content assessed by the exam but will also include test-taking strategies specific to the exam. Students taking this course must plan to take the SAT exam schedule by the College Board before the end of the course (Winter or Spring). This course does not count for English credit.

## **DIGITAL MEDIA/JOURNALISM**

### **DIGITAL MEDIA PRODUCTION** (½ Credit) (Grades 9 – 12)

Students will learn the basics of audio and video recording and editing through both discussion of theory and hands-on practice. Digital file management, compression and distribution will be taught. Students will generate original works, including video clips and audio pod casts, and post them to the web. Intellectual property rights as they relate to media production will be discussed. Students will have at least three video clips to post to their electronic portfolios by the end of the course. Students will assist in the recording and production of school and town events outside of class time.

### **DIGITAL MEDIA PRODUCTION II** (½ Credit) (Grades 9 - 12)

This course will pick up where Intro to Digital Media Production leaves off, shifting to longer-format and more sophisticated field production, including multiple-camera remote shoots. Students will also learn the basics of audio and video studio production and operation. Several studio productions will be staged, some in collaboration with other academic departments (English and Music in particular). Students will assist in the recording and production of school and town events outside of class time. (*Pre-requisite: Digital Media Production*).

### **JOURNALISM** (1 Credit) (Grades 9 - 12)

Journalism is designed to teach students how to write for and publish the school newspaper. Students will gain a deeper understanding of the process of gathering, writing, and editing news and features to be published in the newspaper. Students will be required to do research, interview members of the school community and write and revise copies on a regular basis. Grammar will be reviewed and the elements of journalistic writing will be studied. Computer publishing software, digital photography and copy editing programs will be utilized in the class. Students will also research and study contemporary issues related to the media and its influence in our society.

### **PUBLIC SPEAKING** (½ Credit) (Grades 10-12)

This class is an introduction to public speaking and communication. Students will write and deliver a number of in-class presentations that will provide them the opportunity to develop and improve their public speaking skills. These presentations will be varied in both content and format, ranging from 1 minute introductions to 3 minute persuasive speeches. Students will also view, analyze, and discuss professionally-written and delivered speeches in order to improve their own work. The ability to speak effectively before large and small groups is critical to success in college and in any professional occupation.

## **FAMILY AND CONSUMER SCIENCE**

### **EXPLORATORY FOODS I** (½ Credit) (Grades 9-12)

This is a first year course which includes nutrition; my plate; measurements, food safety. Student will learn the basics skills related to food preparation. The primary purpose of this course is to provide students with opportunities to process new information, learn appropriate skills and understand how to make healthy dietary choices for life-long wellness. Evaluation is based on daily graded rubrics, projects, tests and class participation.

### **EXPLORATORY FOODS II** (½ Credit) (Grades 9-12)

This course builds on students' prior knowledge, skills and experience, and offers opportunities to gain additional knowledge in preparing and serving foods. Students will be taught to become educated consumers and practice making informed decisions regarding personal health and diet. (*Pre-requisite: Exploratory Foods I*)

### **CULINARY ARTS** (½ Credit) (Grades 11-12)

This course of practical and single preparation of foods will teach students the proper use and care of kitchen equipment. Emphasis will be placed on nutritional needs, wellness and meal planning. The course will include classwork in food service techniques, efficiency and cleanliness. Evaluation will be based on daily work performance, notebooks, quizzes and tests. (*Pre-requisite: Exploratory Foods I*)

### **SEWING & TEXTILE ARTS** (½ Credit) (Grades 9-12)

This course is designed to introduce students to the use and caring of the sewing machine. Skills in basic sewing construction, clothing repair, hand sewing and machine sewing techniques will be covered in this course. Projects include: tote bag, pajama pants, zipper pouch and student choice of project based on skill level. The serger and embroidery machine will be introduced in this class.

### **ADVANCED SEWING & TEXTILE ARTS** (½ Credit) (Grades 10-12)

This course will allow students with a serious interest in sewing an opportunity to develop new skills and perfect and expand others. Students will be encouraged to work on a variety of individual projects of their choice. (*Pre-requisite: Sewing & Textile Arts*)

## HISTORY/SOCIAL SCIENCE

### **WORLD HISTORY II** (1 Credit) (Grade 9)

Students study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. They study the origins and consequences of the Industrial Revolution, 19th century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will explain the causes and consequences of the great military and economic events of the past century, including, World War I, World War II, the Cold War, and the Russian and Chinese revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political ethnic and religious conflict in many parts of the world. This course is offered at the College Prep and Honors levels, and is required for graduation.

### **U.S. HISTORY I** (1 Credit) (Grade 10)

Students examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. They learn about the important political and economic factors that contributed to the outbreak of the Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students also study the basic framework of American democracy and the basic concepts of America's government such as popular sovereignty, federalism, separation of powers, and individual rights. Students study America's westward expansion, the establishment of political parties, and economic and social change. Students will learn about the growth of sectional conflict, how sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction. Finally, students will analyze the causes and consequences of the Industrial Revolution and agrarian discontent. This course is offered at the College Prep and Honors levels, and is required for graduation.

### **U.S. HISTORY II** (1 Credit) (Grade 11)

Students will analyze the causes and consequences of the Industrial Revolution and America's growing role in diplomatic relations. Students will study the goals and accomplishments of the Progressive movement and the New Deal. Students will also learn about the various factors that led to America's entry to World War II as well as the consequences of World War II on American life. Finally students will study the causes and course of the Cold War, important economic and political changes during the Cold War, including Civil Rights movement, and recent events and trends that have shaped modern-day America. This course is offered at the College Prep and Honors levels, and may be used to fulfill one of the two U.S. History credits required for graduation.

### **A.P. U.S. HISTORY** (1 Credit) (Grade 11)

The United States History Advanced Placement course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials - their relevance to a given interpretive problem, reliability, and importance - and to weigh the evidence and interpretations presented in historical scholarship. Students taking this course will develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. At the culmination of this course it is required that students will take the United States History Advanced Placement Exam administered by the Education Testing Service of the College Board in order to receive A.P. weight. The course is offered to students in the 11th grade, based upon the recommendation of the Department Chairperson. This course may be used to fulfill one of the two U.S. History credits required for graduation.

### **A.P. PSYCHOLOGY** (1 Credit) (Grade 12)

The Advanced Placement Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human behavior and other animals. The aim of this course is to provide the student with a learning experience equivalent to that obtained in most college introductory psychology courses. Students will be exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They will also learn about the ethics and methods psychologists use in their science and practice. At the culmination of this course, it is required that students will take the Advanced Placement Psychology Exam administered by the Education Testing Service of the College Board in order to receive A.P. weight. The course is offered to the students in the 12th grade, based upon the recommendation of the Department Chairperson.

## ***HISTORY/SOCIAL SCIENCE ELECTIVES:***

### **AMERICA AND THE WORLD** (½ Credit) (Grades 11-12)

This is a half-year course, designed for upper classmen. It will encompass a seminar and research approach to international relations since 1945. The year 1945 was chosen because it was at that time the atomic bomb dropped on two Japanese cities to end World War II for the United States. It will include an examination of the Cold War diplomacy of the U.S. and the Soviet Union, and the emergence of the People's Republic of China as a world power. It will investigate the new diplomacy of detente and the center state appearance of terrorism. There will also be focus on the problems of the Third World, especially, the economic and military presence of the Middle East (Arab vs. Israel). This course will attempt to use this backdrop to examine critical events of today as they affect the American people.

**AP MICROECONOMICS** (1 Credit) (Grades 10-12)

This is a rigorous college-level course. The course utilizes the College Entrance Board's AP Microeconomics syllabus. Topics include basic economic concepts, thinking like an economist, benefits of trade, supply and demand, elasticity, costs of taxation, externalities, costs of production, competitive and monopolistic markets, market failures and the role of government in the economy. All students enrolled in A.P. classes are required to take the AP exam in May.

**HISTORY AND FILM** (½ Credit) (Grades 11-12)

This course will examine how film portrays history. Activities will be research-based and will attempt to demonstrate the extent to which Hollywood has accurately represented actual historical events.

**LAW** (½ Credit) (Grades 9 – 10)

The course provides the student with an overview into the field of law. Subject matter covered includes civil, criminal, business, and domestic law issues. The course develops the student's awareness of the controls placed on society by laws and regulations. Students participate in mock trials and other activities. The subject matter in the textbooks is augmented through the use of field trips and by classroom lectures provided by legal professionals who discuss their legal experiences with the students. The completion of this course will result in a well-balanced understanding of the complexities of law and the practice of preparing convincing and substantial arguments.

**AMERICAN CONSPIRACIES** (½ Credit) (Grades 9 – 10) *(Not offered in the 2017 – 2018 school year)*

From the Salem Witch Trials to the attack on the World Trade Center towers, Americans have had a healthy obsession with conspiracy theories. The purpose of this course is to examine some of the more popular conspiracy theories from America's history, critically and with a logical analytical basis. While some of these theories seem to most people to be the result of an active imagination (and, perhaps, a little paranoia), others appear to have a good deal of factual support behind them. Topics may include any of the following: 9/11/2001; the Kennedy and Lincoln assassinations; the Illuminati and New World Order; FDR and the Pearl Harbor attack; Roswell, New Mexico and Area 51; and the role of the Freemasons in the founding of the United States.

**POP CULTURE** (½ Credit) (Grades 9 – 10)

This elective will deal with the history of pop culture in the United States since its inception. Specific attention will be paid to the role that pop culture has played in American society, in its various forms.

**PSYCHOLOGY** (½ Credit) (Grades 11 - 12)

This course provides students with the opportunity to acquire knowledge and an understanding of the nature of psychology and psychological theory. Through this process, the student is acquainted with what modern research has discovered in regard to the process of learning. In addition, the student may acquire knowledge of patterns of human behavior and an understanding of varied patterns of behavior. This course will also examine personality in three different areas: the formation of personality, measurement of personality, and various theories of personality. The formation of personality will concentrate on defining personality and examining the main forces of personality. This course is an elective, offered at College Prep level. (Priority is given to Grade 12).

**SOCIOLOGY** (½ Credit) (Grades 11 - 12) *(Not offered in the 2017 – 2018 school year)*

This course is a study of the structure of our society in particular and the world society in general and its impact on our life. It develops an understanding of the evolution of our culture and society and sociological problems in contemporary life, the basic needs of the individual in society and the collective behavior of individuals in society. This course is also designed to show the influence of family on the individual. Since many of our attitudes, values, beliefs, political opinions, and career aspirations can be traced directly to the influence of the family coupled with the fact that much of our personality is directly attributable to our family, the family unit, and its relationship to social issues confronting our society is studied in depth.

## MATHEMATICS

**ALGEBRA I** (1 Credit) (Grade 9)

Algebra I is designed to acquaint the student with the power of symbolism and the structure of algebra. The why as well as the how must be emphasized if the student is to succeed in his/her mathematical development. In today's world, topics such as sets, coordinates, number systems, graphs of one or two dimensions, equations, inequalities, and absolute values have acquired special importance.

**ALGEBRA I CONCEPTS** (1 Credit) (Grade 9)

This is the first course in a sequential program that is structured to meet the basic requirements of college entrance. This course enables the student to be mathematically successful because of the slower concentrated pace of the course; moreover, it teaches all the algebraic skills, which are the foundation of all future study in the math and science fields. Topics will include: variables and algebraic expressions, one step and multi-step equations, integers, factoring, and quadratic equations, percent and radical expressions. Emphasis will be placed on critical thinking and problem solving. *(Pre-requisite: Pre-Algebra)*

**GEOMETRY** (1 Credit) (Grades 9 or 10)

Mathematics is one of the most active of all the sciences. In order to meet demands of the industry, the professions, and mathematics it, mathematics have extended and combined old branches of mathematics as well as developed new ones. While geometry is one the oldest branches of mathematics, it is today finding new areas of applications in fields such as space exploration and rocket designing. This course is intended to discuss properties of points, lines, surfaces and solids. Modern



Geometry will be explored by integrating plane, solid and coordinate geometry with an effective use of algebra. (*Pre-requisite: Algebra I*)

**GEOMETRY HONORS** (1 Credit) (Grade 9)

This course is designed for students who have demonstrated exceptional ability in Algebra I. It will provide an accelerated and more rigorous treatment of geometric concepts. Geometric concepts will be explored in settings that involve problem solving skills and the use of mathematical proofs. (*Pre-requisites: Honors Algebra I recommended grade of B- or better or Algebra I recommended grade of A, with teacher recommendation*)

**GEOMETRY CONCEPTS** (1 Credit) (Grade 10)

This is the second course in a four-year sequential program that is structured to meet the basic requirements of college entrance. Algebra I and geometry have been extended to cover a three-year period for those students who could encounter difficulty with the two-year program. Geometry Concepts will introduce the properties of points, lines, surfaces, and solids. It will also include the study of polygons, area, perimeter, and volume. Emphasis will be placed on critical thinking and problem solving. (*Pre-requisite: Algebra I Concepts*)

**ALGEBRA II** (1 Credit) (Grade 10 or 11)

This course is a continuation of Algebra I with an in-depth approach to the following topics: sets, properties of numbers, systems of linear equations, polynomials and factoring, functions and relations, irrational numbers and quadratic equations, and trigonometric functions and complex numbers, progressions and binomial expansion. The development of this course places emphasis on the fact that one learns mathematics best by doing it and the proper balance between theory and practice is essential to understanding. (*Pre-requisite: Geometry*)

**ALGEBRA II HONORS** (1 Credit) (Grades 10 or 11)

This course is an advanced mathematics course designed for students with exceptional ability in mathematics that expands on the algebraic concepts of Honors Algebra I. The following topics will be covered: sets, properties of numbers, systems of linear equations and inequalities, polynomials and factoring, functions and relations, irrational numbers and quadratic equations, and trigonometric functions and complex numbers. There will be a heavy emphasis on solving word problems throughout the course. (*Recommended a grade of B- or better in Honors Geometry or an A or better in Geometry with teacher recommendation*)

**ALGEBRA II CONCEPTS** (1 Credit) (Grade 10 or 11)

This is the third course in a four-year sequence which is structured to meet basic requirements of college entrance. The purpose of this course is to provide the second part of a two-part sequence in algebra skills. This course enables the student to be mathematically successful because of the slower concentrated pace of the course; moreover, it teaches all the algebraic skills which are the foundation of all future study in the math and science fields. Topics will include: equations with two or more variables, equations with fractions, decimals and percent; squares' and square roots; radicals and quadratic equations. Emphasis will be placed on critical thinking and problem solving. (*Pre-requisites: Algebra I Concepts and Geometry Concepts*)

**PRE-CALCULUS** (1 Credit) (Grades 11 or 12)

This is a math analysis course designed specifically for those students who plan to further their education in the fields of mathematics, science, or engineering; or to pursue a degree in business. The course covers algebraic topics such as operations with polynomials, linear functions and inequalities, quadratic function, rational functions, graphing functions, logarithmic and exponential functions, complex numbers, linear systems, sequences, series, and probability. Trigonometry covers angle functions, identities, graphing applications and polar coordinates. (*Pre-requisite: Algebra II*)

**PRE-CALCULUS HONORS** (1 Credit) (Grades 11 or 12)

This course is designed for students who have demonstrated exceptional ability in Algebra II Honors. It will provide an accelerated and more rigorous treatment of algebraic topics as operations with polynomials, linear functions and inequalities, quadratic function, rational functions, complex numbers, linear systems, sequences, series, and probability. Trigonometry covers angle functions, identities, graphing, applications and polar coordinates. (*Pre-requisites: Honors Algebra II recommended grade of B- or better or Algebra II recommended grade of A, with teacher recommendation*)

**CALCULUS** (1 Credit) (HONORS) (Grade 12)

Students who elect this course need a strong background in algebra, geometry, and trigonometry. The ability to think abstractly is very important. The concepts of the derivative and integral are introduced in this course. Basic rules of integration and differentiation are studied. Graphing calculators are used in class and on homework. (*Pre-requisite: Pre-Calculus*)

**ADVANCED PLACEMENT CALCULUS AB** (1 Credit) (Grade 12)

This course is specifically designed for those students who plan to major in math, science, engineering, or computer science; or to pursue a career in business. This course discusses the concepts of differential and integral calculus. For A.P. credit students are required to take the A.P. Exam in the spring. (*Pre-requisite: Pre-Calculus, recommended B- or better*)

**ALGEBRA III** (1 Credit) (Grade 12)

Problems in arithmetic, algebra, geometry, modern mathematics, and graphs will be discussed; tests, similar in format and content to the mathematics section of the S.A.T. and Accuplacer test, will be given throughout the course. This course is designed for seniors who will not be majoring in mathematics and science. The course will introduce students to the following: logic, further aspects of algebra, ratio, and proportions, the rectangular coordinate system, probability and statistics. (*Pre-requisite: Algebra II Concepts*)

**STATISTICS (1 Credit) (Grade 12)**

This course is a hands-on study of statistics. It introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Special attention will be on graphical display, hypothesis testing, and probability. This course is recommended for college-bound seniors who intend to major in fields requiring data analysis such as psychology, engineering health sciences, and business. (*Pre-requisite: Algebra II*)

**ADVANCED PLACEMENT STATISTICS (1 Credit) (Grades 11- 12)**

This course is an in-depth study of statistics for the highly motivated students. Its purpose will be to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Attention will be paid to both the application and the theory of statistical topics. Available technology, such as graphing calculators and Excel, will be used throughout the course. Students are required to take the A.P. Exam in the spring. (*Pre-requisites: Algebra II Honors or Algebra II with a grade of B- or better and teacher recommendation*)

**SAT PREP (½ Credit) (Grade 11-12)**

This course prepares students for the Math portion of the SAT exam. Students will apply all facets of the math portion of the SAT exam: number and operations, algebra and functions, geometry and measurement and data analysis, statistics and probability. Students taking this course must plan to take the SAT exam scheduled by the College Board at the end of the course (Winter or Spring).

## MUSIC

**CONCERT BAND (1 Credit) (Grades 9-12)**

The concert band is an instrumental performing ensemble. The band curriculum focuses on important fundamentals of tone production, ensemble playing, site reading, musical interpretation and style, rhythm studies, scale and chord studies. The course offers students a chance to perform many different classical and popular styles of wind band literature. Band students also participate in the “Bulldog Marching Band” at home football games in the fall and perform at parades and community events. The Ensemble performs concerts throughout the year. Preparation for the fall marching season begins with our annual summer band camp in August.

**CHORUS (1 Credit) (Grades 9-12)**

Chorus is open to all students interested in performing, developing vocal skills, and learning about music theory, history, and culture. Repertoire will include popular, sacred, and secular music from throughout music history.

**MUSIC AND FILM (½ Credit) (Grades 9-12)**

This course will introduce students to the music of motion pictures. Students will gain an appreciation for the music found in film as well as the composers who write the music. In addition to studying the film music process and history, listening to film scores and studying motion pictures will be an important part of this course. No prior music experience is necessary.

**MUSIC THEORY & AURAL SKILLS (½ Credit) (Grades 10-12)**

This course is designed for musicians who want to learn more about how music works. The course will help prepare students planning on attending music school for a college level music theory placement exam. The course will study basic musical elements such as rhythm, notation and meter, pitch, key signatures, scales and scale construction and basic harmony. Students will learn to hear and identify scales, intervals and chord qualities. Students will learn to hear and identify basic harmonic progressions.

**AMERICAN POPULAR MUSIC & SOCIAL ISSUES (½ Credit) (Grades 10-12)**

This course will study popular music in the United States in order to understand significant social, economic and cultural transformations during the last century. The course will study how popular music has reflected attitudes about social issues such as slavery, the labor movement, civil rights, war & peace, world hunger, LGBT issues and gender equality. The class will devote time to discussing the role popular music played in mass cultural change by bringing together Americans of all classes, races and genders. The class will spend considerable time listening to, analyzing and discussing important songs by musical artists such as Louis Armstrong, Woody Guthrie, Bob Dylan, Bruce Springsteen, Harry Chapin, Madonna, Queen, Diana Ross, Michael Jackson, George Michael and Katy Perry.

## PHYSICAL EDUCATION AND HEALTH STUDIES

The integrated program of physical education and health at Rockland High School is designed to meet the general health and wellness needs of all students in their freshman, sophomore, junior and senior years. In compliance with both the [Massachusetts State Health Curriculum](#) frameworks goals and the SHAPE America National standards goals, the Physical Education/Health studies program will prepare students to be active for life.

**FRESHMEN HEALTH (½ Credit) (Grades 9)**

This Health Education course is required of all freshmen. (It is also open to students in grade 10 who did not have freshman health). This course is designed to assist students in making positive choices related to physical, mental/emotional, and social

health. Topics in this dynamic course include; Global health vs. Health in the United States (past, present, and future concerns), mental health, mental health disorders, dealing with stress in a positive way, common disease prevention, time management strategies, addictive behaviors, human sexuality and healthy relationship responsibilities, and positive plans for healthy living.

#### **PHYSICAL EDUCATION** (½ Credit) (Grades 10-12)

Students enrolled in physical education will participate in an assortment of team/group games and activities throughout the semester. Students will also have opportunities to design and practice personalized fitness programs and activities to improve functional strength and flexibility, core stability, speed, power, agility and cardiovascular health.

#### **UNIFIED PHYSICAL EDUCATION** (½ Credit) (Grades 10-12)

The objective of our Unified physical education class is to promote social inclusion through shared sports training and skill development experiences. Unified sports joins students with and without intellectual disabilities within the same class. The class participates in modified games and skills following the physical education curriculum. *Participants in the class must have instructor permission to enroll.*

#### **SENIOR ISSUES** (½ Credit) (Grade 12)

This Health Education course is open to seniors who have successfully completed Freshmen Health. This course focuses on the issues/challenges that young adults face today. Students will analyze their personal health choices and risks based on their decision making practices. The curriculum is composed of three major content areas according to the three aspects of health: mental, physical and social health. Topics include building healthy communication skills, understanding health literacy, developing a personal plan of action, recognizing addictive behaviors, relationship responsibilities including protecting oneself from dating violence, and basic human sexuality. Emphasis is placed on responsible decision making skills, which accompany factual information and student group analysis of health issues.

## **SCIENCE**

Biology is a pre-requisite for all Science courses. Chemistry and Biology must be passed prior to 11/12th grade classes. Science courses that include dissection also include dissection alternatives. Upon written request of student's parent or guardian, the teacher will permit a student who objects to dissection activities to demonstrate competency through an alternative method.

#### **BIOLOGY** (1 Credit) (Lab Course) (Grade 9)

This course is required for all incoming freshmen. This course is based on the study of organisms and their interactions with the world around them and each other. This course is based on the MCAS frameworks and all students will be required to take the Biology MCAS. Students will investigate the human systems, biochemistry, cellular structure and function, genetics, evolution and ecology. Lab practices and research writing is introduced. *(This course is also offered as an Honors level. Teacher recommendation required.)*

#### **ADVANCED PLACEMENT BIOLOGY** (1 Credit) (Lab Course) (Grades 9 - 12)

Advanced Placement Biology will explore the biological processes and common problems that face all life forms. Emphasis is placed on the cell, its chemical structure and physiological reactions. Plant and animal systems are studied in detail in order to understand their adaptiveness. This course concentrates on the theory of evolution as the process of change that promotes adaptiveness. The theory of heredity is also studied in depth so students will understand the molecular basis of life and its diversity. Extensive independent laboratory investigation is required. Dissections, microscopic study of plants and animal tissues, chemical analysis, and metabolism experiments are only a few of the laboratories done during the year. Outside reading of related scientific reference material will also be expected. Students planning to elect this course should be prepared to work on a college level. Lab practices and research writing are an integral part of this curriculum. The Advanced Placement Exam will be taken by all students at the conclusion of the course. **Grade 10 students must take chemistry concurrently and grade 11 students must take physics concurrently.** Any student who enrolls in an AP course is required to take the AP exam in May of the school year. *(Pre-requisite: Biology; Pre-AP summer work may be required; teacher recommendation required)*

#### **CHEMISTRY** (1 Credit) (Lab Course) (Grade 10)

The Chemistry I course is an inquiry-base class that explores how we can explain everyday phenomenon by investigating the chemical and physical properties of matter. Students of chemistry can expect to learn about how atomic theory can explain periodic trends such as conductivity or nuclear stability as well as the mathematical treatment of chemical concepts. Chemistry explores how physical observable properties like oil and water separating or sugar dissolving in water can be understood through models of chemical reactions, stoichiometry, solutions, and the behavior of solids, liquids, and gases. The course employs a hands-on, cooperative learning approach through laboratories, research projects, presentations, demonstrations and problem-solving as well as employing 21st century skills. *(Pre-requisites: Biology; This course is also offered as an Honors level. Teacher recommendation required.)*

#### **PHYSICS** (1 Credit) (Lab Course) (Grade 11)

This course is a laboratory course that will introduce students to the basic concepts of physics. Major topics addressed in this course include kinematics, forces, work, energy, electricity, electromagnetism, waves and optics. Experimentation and follow-up reports will provide students with the opportunity to engage in hands-on applications of their knowledge of physical concepts. Students enrolled in Physics should acquire the skills necessary to solve problems logically and sequentially and should gain an understanding of physical phenomena. Lab practices and research writing are an integral part of this curriculum. *(Pre-requisite: Chemistry, Algebra II, or student may take concurrently with Algebra II.)*

**ADVANCED PLACEMENT PHYSICS** (1 Credit) (Lab Course) (Grades 11 or 12)

This course is the equivalent of a first semester algebra-based college physics course. It follows the College Board guidelines for the Advanced Placement Physics I Curriculum. This advanced level course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. This course is strongly recommended to students who have an interest in physics, engineering, or mathematics and wish to be enrolled in a highly challenging course of study. Students are required to take the AP Physics I Exam. Experimentation and follow-up reports will provide students with the opportunity to engage in hands-on applications of their knowledge of physical concepts. Students enrolled in Physics should acquire the skills necessary to solve problems logically and sequentially and should gain an understanding of physical phenomena. Lab practices and research writing are an integral part of this curriculum.

*(Pre-requisite: Algebra II)*

**ADVANCED PLACEMENT CHEMISTRY** (1 Credit) (Lab Course) (Grades 11-12) (*Not offered in the 2017-2018 school year*)

This course is the equivalent of a first-year college Chemistry course and follows the College Board's guidelines for the Advanced Placement curriculum. Topics covered include mass relations, gas behavior, atomic structure, chemical bonding, solution chemistry, reaction rates, chemical equilibrium, acid-base chemistry, electrochemistry, and thermodynamics. This course is especially recommended for students having good quantitative reasoning skills, along with a strong interest in science, and who seek to improve their preparation for college. **Grade 11 students must take physics concurrently.** Any student who enrolls in an AP course is required to take the AP exam in May of the school year. Lab practices and research writing are an integral part of this curriculum. *(Prerequisite: Biology and Algebra II concurrently; Pre-AP summer work may be required; teacher recommendation required)*

**ANATOMY AND PHYSIOLOGY** (1 Credit) (Lab Course) (Grade 12)

This course is designed to provide students with a basic understanding of structure and functions of the human body. All major systems of the body will be covered; as well as laboratory skills, bioethical issues, and health related topics. This course is a college preparatory course. Some dissection is part of the course. Lab practices and research writing are an integral part of this curriculum. *(Pre-requisites: Chemistry and Physics; This course may also be taken for honors credit)*

**EARTH SCIENCE** (1 Credit) (Lab Course) (Grade 12)

Earth Science is a laboratory course offered to Seniors focusing on the study of space (the celestial universe), Earth's atmospheric and geologic forces, the ocean's and their role as they help to shape our world as well as how humans have impacted the earth with respect to natural resources, climate change and sustainability. Students will explore topics in astronomy, meteorology, oceanography and geology and gain an understanding of how the science of the Earth affects their everyday life. The focus will be on the application of fundamental concepts and principles as powerful tools in understanding the interconnectedness of the Earth's Systems. Lab practices and research writing are an integral part of this curriculum. *(Pre-requisites: Biology, Chemistry requirements fulfilled. This course may be taken for honors credit)*

**A.P. ENVIRONMENTAL SCIENCE** (1 Credit) (Lab Course) (Grades 11 - 12)

The A.P. Environmental Science course is designed to be equivalent to an introductory college course in environmental science. This course has been developed as a rigorous science course providing the scientific principles, concepts, and the methodologies. Any student who enrolls in an AP course is required to take the AP exam in May of the school year. *(Pre-requisites: Biology, Chemistry requirements fulfilled.)*

**PHYSICAL SCIENCE** (1 Credit) (Lab Course)

Chemistry is the study of the properties, composition, structure, and interactions of matter. Physics is the study of the relationship between matter and energy. This course introduces the fundamental concepts of scientific inquiry, the structure of matter, chemical reactions, forces, motion, and the interactions between energy and matter. This course will serve as a laboratory-based introduction to possible future course work in chemistry or physics while ensuring a mastery of basics of each discipline. The ultimate goal of the course is to produce scientifically literate citizens capable of using their knowledge of physical science to solve real-world problems and to make personal, social, and ethical decisions that have consequences beyond the classroom walls. *This course may only be taken with permission from the Science Department Head.*

**FORENSICS & BIOTECHNOLOGY** (½ credit) (Grades 9-12)

This course is designed to illustrate the uses of biotechnology for forensic applications. Students will gain an appreciation and understanding of the underlying molecular biology techniques that are used in a diverse array of settings; including blood analysis, blood typing, DNA fingerprinting and genetic testing. Additionally, the social, ethical and legal implications of these procedures and applications will be fully considered.

**EVOLUTION & ECOLOGY** (½ credit) (Grades 9-12)

This course is designed to introduce students to (1) the fundamentals of evolutionary theory and (2) the application of this framework for our understanding of human evolutionary history. The course will begin by introducing students to the theory of evolution, its historical background and its modern articulation by Charles Darwin. We will also explore modern modifications to Darwinian evolution. Research addressing evolutionary underpinnings of behavior is presented in regard to several classes of behavior. A study of principles and concepts of ecology at the ecosystem, community, population, and organism levels of organization.

## CONSTRUCTION TECHNOLOGY

### **WOODWORKING I** (½ credit) (Grades 9-12)

This course will introduce students to the fundamental woodworking skills and the basics of the modern woodworking trade. Skills that involve systematic work habits will be stressed as a foundation for all further studies. Through the completion of projects, students will master basic safety procedures, be exposed to the concept of craftsmanship, learn industrial vocabulary, explore occupational interests, and learn the role of math in the modern woodworking trades.

### **WOODWORKING II** (½ credit) (Grades 9-12)

Woodworking II provides a more detailed understanding of tool processes and continues to develop the skills and knowledge needed in the modern woodworking industry. It builds understanding for the problems, products, processes, and craftsmanship of furniture and simple building trades. Skills in the uses of hand tools and machines, a desire for quality in workmanship, and a cultivation of orderly and systematic work habits will be stressed. Mathematical concepts and homework assignments will be required. Criteria for evaluation will be based on mathematics, work habits, project grades, tests, quizzes, folders, and daily grades. (*Pre-requisite: Woodworking I*)

### **EVERYDAY REPAIRS** (½ Credit) (Grades 9-12)

Everyday repairs will introduce students to all phases of home repairs including painting, electrical, plumbing and preventative maintenance of your home. The course will focus on everyday energy efficiency options and upgrades to older structures, use of tools and safety procedures will be stressed in the phases of the home repair.

### **STRUCTURES & SHED DESIGN** (½ Credit) (Grades 9-12)

Emphasis is placed on the detailed planning required for a construction project. Studies will include blueprint reading, terminology, specifications, estimating, selecting building materials, job layout, project control, and cost studies. All students are required to complete the construction of a small frame house with all details to scale (windows, doors, roof truss, trim, shutters, and framing). Techniques of construction used in prefabrication of subassemblies will be covered. A working application of architectural scales, fractions, ratios, and percentages are necessary for success in the course. Evaluation will be based on the completion of the model house/shed and blueprint quizzes. Additional criteria used for evaluation will include systematic work habits. (*Pre-requisite: Woodworking I*)

### **OFF-SITE CONSTRUCTION CREW** (2 credits) (Grades 11-12)

This course is for students aspiring to a career in the building and construction trades. Under the direct supervision of the instructor, this two-period class will complete off-site projects located within the Town of Rockland. Projects may include new construction, renovation, or repairs. Project requests from the Rockland community will be solicited and selected by the instructor and approved by the high school principal. *Instructor permission is required to register for this class.*

## PRE-ENGINEERING/ENGINEERING

### **INTRODUCTION TO ROBOTICS** (1/2 YEAR) (Grades 9-12)

This hands-on course will introduce students to the fundamentals of robotics and the engineering design process. Students will build a robot from plans using the Vex Robotic System as they learn the importance of each of the robotic subsystems. They will learn to control and compete with the robot using a joystick and then by programming with EasyC software. After learning the basics, they will design their own robot to compete in a class competition. They will then have an opportunity to build, program, and test these designs. Careers in robotics, programming, and engineering will be discussed.

### **ROBOTICS** (Full year course) (Grades 10-12)

Robotics is designed to explore the current and future use of automation technology in everyday use. Students will receive a comprehensive overview of robotics systems and the subsystems that comprise them. In this hands on course, they will design and build several robots using the Vex Robotics System and learn to program them using EasyC. There will be a class competition where students will apply the knowledge and skills learned earlier in the course. Career in robotics, programming, and engineering will be discussed. (*Pre-requisite: Intro to Robotics or Teacher approval.*)

### **ENGINEERING 101** (Full year course) (Grades 11-12)

Engineering 101 is an innovative, year-long high school engineering design curriculum for students who want to learn more about engineering and its role in shaping our world. Developed by faculty at The University of Texas at Austin and engineers from NASA, Engineering 101 engages students in authentic engineering practices in a project-based environment as it scaffolds student learning over a series of engaging and socially relevant design challenges. The curriculum focuses on creating a narrative of engineering, building engineering design skills, and developing engineering habits of mind.

## COMPUTER SCIENCE

### **COMPUTER SCIENCE I** (1/2 year course) (Grades 9-12)

Students are introduced to the fundamental concepts of computer science and programming. General computer science topics include data types and variables, input/output procedures, loop structures, string manipulation and modular programming

techniques. Although this is an entry-level course in the computer science sequence, a thorough understanding of the mathematical concepts in Algebra 1 is required to master the material.

**COMPUTER SCIENCE II** (1/2 year course) (Grades 9-12)

Students will continue to study fundamental concepts of computer science and programming. Data types, input/output procedures, strings and looping structures will continue to be utilized. New topics include working with algorithms, debugging, and introducing object oriented programming. A working knowledge of Computer Science 1 and concepts in Algebra 1 are required to master the material.

## WORLD LANGUAGE

**FRENCH I** (1 Credit)

Students will be introduced to the everyday expressions and grammar used in conversational French. Students will be able to understand and answer as well as read and write simple French sentences. Students will also read and write short paragraphs in French.

**FRENCH II** (1 Credit)

Students will continue to develop their French language skills and expand their knowledge of French culture. A study of French speaking countries outside of France will also be included. *Course is offered at the Honors and College Prep levels.*

**FRENCH III** (1 Credit)

Students will continue to expand their knowledge of French grammar and vocabulary through the study of extended reading selections and written compositions to enhance cultural awareness. *Course is offered at the Honors level only.*

**FRENCH IV** (1 Credit)

Students continue to study basic grammar and vocabulary. There are longer reading and writing assignments than in French III. Excerpts from French novels, plays, poetry, short stories, newspapers, and films are studied. *Course is offered at the Honors level only.*

**FRENCH V** (1 Credit)

Students will study advanced grammatical concepts, vocabulary, and the culture of French speaking countries. They will also read and discuss French literature and view selected films in French. *Course is offered at the Honors level only.*

**SPANISH I** (1 Credit)

This course introduces students to basic Spanish expressions, culture, and grammar, with emphasis on the present tense. They will learn to ask and answer questions relating to everyday topics of conversation, and they will read short articles and write simple paragraphs.

**SPANISH II** (1 Credit)

Students will be expected to understand, ask, and answer more difficult questions on topics of general interest. There will be emphasis on the main past tenses, and students will learn more detailed vocabulary. They will continue to study and read about Hispanic culture in Spanish. *Course is offered at the Honors and College Prep levels.*

**SPANISH III** (1 Credit)

There will be more emphasis on spoken Spanish and discussion using more specific vocabulary. Students will write more compositions in the language, read more difficult passages and study more advanced grammar, with emphasis on the subjective mood. *Course is offered at the Honors and College Prep levels.*

**SPANISH IV** (1 Credit)

Students will read longer selections from Hispanic literature and will apply the grammar studied over the past three years. Students will understand, read, speak and write in Spanish. They will delve into Spanish history through readings and film and will develop a strong knowledge of Hispanic culture. *Course is offered at the Honors level only.*

**SPANISH V** (1 Credit)

Students will study advanced grammatical concepts and vocabulary and will compare and contrast the cultures of Hispanic countries and their own. They will read and discuss Spanish literature and view selected films in Spanish. *Course is offered at the Honors level only.*