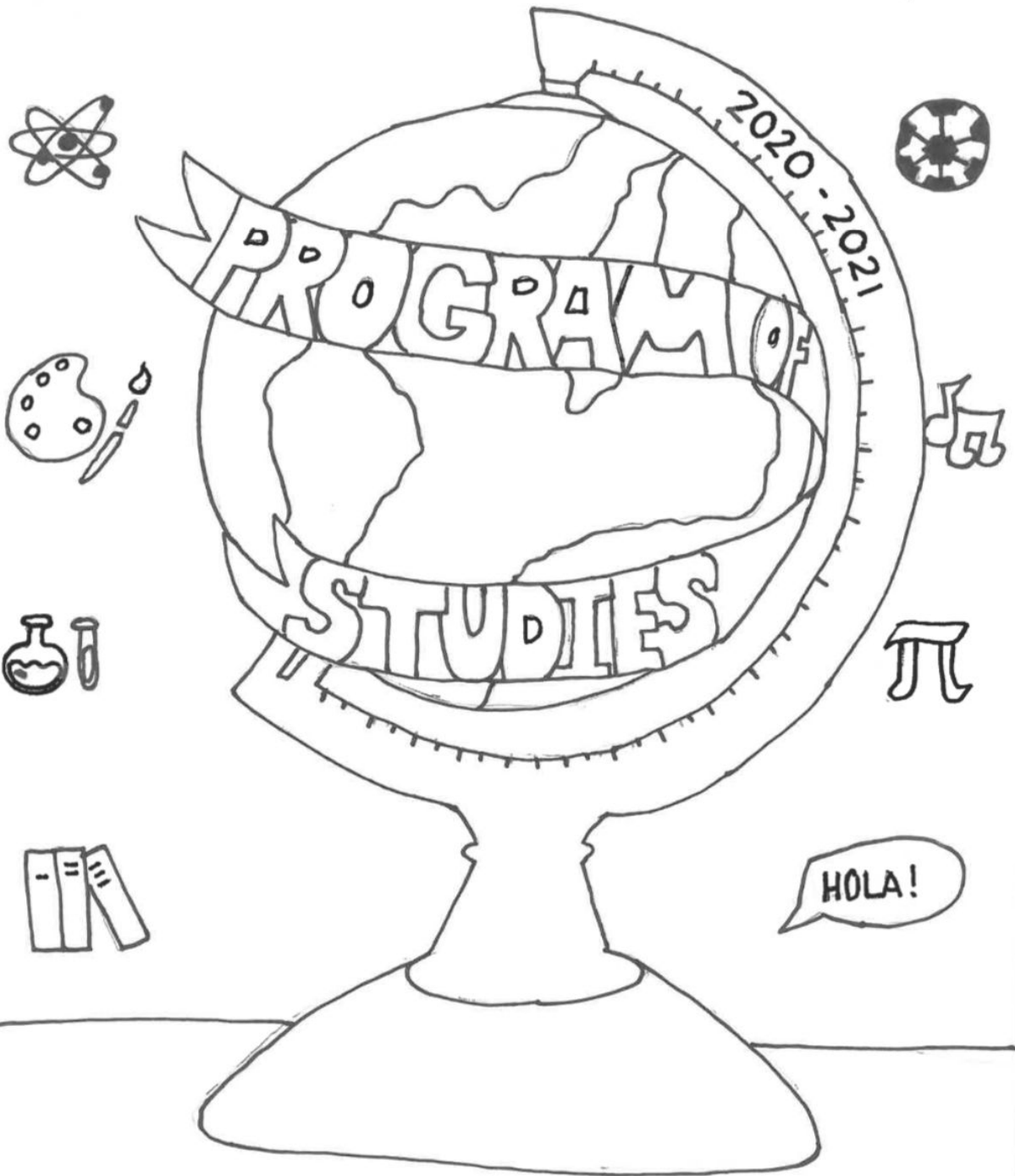


# STONEHAM HIGH SCHOOL



*J. Spinal*

**Stoneham High School  
Program of Studies  
2020 - 2021**

**Administration**

**Bryan Lombardi  
Principal**

**Sarah Auger  
Assistant Principal**

**Sharon Chapman  
Science Department Supervisor**

**Kelly Mertens  
Special Education Supervisor**

**David Pignone  
Athletic Director  
Physical Education Department Supervisor**

**Paula Sampson  
Social Studies Department Supervisor**

**Krista Stevens  
English Department Supervisor**

**Michelle Zavez  
Math Department Supervisor**

**Main Office**

**Ellen Willard  
Registrar/Attendance Secretary**

**Robin Yeomelakis  
Administrative Assistant to the Principal**

## TABLE OF CONTENTS

MISSION STATEMENT	1
STUDENT LEARNING EXPECTATIONS	1
PRINCIPAL'S FORWARD	2
SCHOOL COUNSELING DEPARTMENT	3
SUGGESTED STEPS IN PROGRAM PLANNING	4
PROMOTION AND GRADUATION REQUIREMENTS	5
LEVELS OF INSTRUCTION	7
SUGGESTED COURSE PATTERNS	8
THE MARKING SYSTEM	9
DETERMINING RANK IN CLASS	10
HONOR ROLL	10
SUMMER SCHOOL	10
COURSE AND LEVEL CHANGES	11
ALTERNATIVE EDUCATION OPTIONS	12
STEM PATHWAYS	13
COURSE DESCRIPTIONS	15
ENGLISH	15
FAMILY AND CONSUMER SCIENCE	19
FINE ARTS	23
HEALTH EDUCATION	28
SOCIAL STUDIES	31
MATHEMATICS	38
PHYSICAL EDUCATION	46
SCIENCE/STEM	47
TECHNOLOGY	57
WORLD LANGUAGES	60
ENGLISH LANGUAGE LEARNING	68
SPECIAL EDUCATION	69

# Mission Statement

## Stoneham High School Community Strives

- To foster intellectual curiosity and integrity within all students
- To encourage students to take personal responsibility for their learning
- To establish a community of informed and engaged world citizens

## Stoneham High School Core Values:

Curiosity  
Integrity  
Responsibility  
Community

## Learning Expectations of Students:

1. Students analyze problems and present solutions to them in diverse and innovative ways.
2. Students demonstrate personal responsibility and respect toward others.
3. Students use appropriate technology and tools to access, evaluate and effectively apply information.
4. Students think critically and communicate clearly and effectively.
5. Students engage successfully in independent and collaborative work.

These Learning Expectations are at the core of the skill development provided at Stoneham High School. Though all these expectations will be present in all academic experiences within SHS we have linked specific expectations with departments.

<b>Expectations</b>	<b>Academic Department</b>
Students analyze problems and present solutions to them in diverse and innovative ways.	Math and Science
Students demonstrate personal responsibility and respect toward others.	Health and Physical Education
Students use appropriate technology and tools to access, evaluate and effectively apply information.	History and Social Sciences
Students think critically and communicate clearly and effectively.	English and World Language
Students engage successfully in independent and collaborative work.	Elective courses

## **Principal's Forward**

The Stoneham High School Program of Studies presents a wide range of courses, including essential information on graduation requirements and educational opportunities offered, to engage and challenge all students while meeting individual needs and goals. We emphasize a high level of academic rigor and provide a meaningful educational experience for every student. Each of our courses are carefully crafted to provide opportunities to engage our learning expectations.

The course selection process is an important one and should not be limited to this publication. The most important element in a successful academic program is the student. Each year brings a new opportunity to design a selection of courses that speaks directly to the students' interests and aspirations.

When scheduling, I urge students to consider both challenge and balance. All courses provide rigor and academic challenge to nourish mental growth. High school is a unique time to explore and develop student strengths and interests; therefore, students should take the opportunity to enroll in classes that adhere to their passions and hearts. Students' interests, abilities, past performance, and goals for the future are all important factors that need to be considered when scheduling.

Students will have multiple opportunities to receive support from teachers and school counselors in building an appropriate schedule. I encourage students to spend time exploring and discussing options with your parents and guardians. Your careful and thoughtful attention to the course selection process will help us develop an educational program that best meets your needs and interests. It is important to note that your course schedule is built based on the courses you choose; no course changes will be allowed unless for reasons as detailed in the Course Selection section of this Program.

Stoneham High School has an excellent educational program taught by a talented and dedicated faculty. This high school is committed to providing each student with an education in which essential information and skills are learned, knowledge is explored, and ideas are critically analyzed and evaluated.

Bryan Lombardi  
Principal  
Stoneham High School

## **School Counseling Department**

**Office Hours: 7:30 am - 3:30 pm**

**781-279-3810 x1326**

**Fax: 781-279-2115**

### **Philosophy**

The philosophy of the Stoneham High School Counseling Department is to help all students successfully navigate through high school academically, socially and personally. The School Counseling Department aligns and works with the school's mission statement and learning expectations in supporting the academic achievement of all students. The Massachusetts Model for Comprehensive School Counseling and the ASCA National Model with their data-driven and results-based focus serves as a guide for the SHS school counseling team. The emphasis of the Counselor program is to maximize the potential of all students through a comprehensive developmental approach.

**Role of the School Counselor:** The school (guidance) counselor works to assist students to become healthy and effective human beings as they transition to adulthood. This is done through individual, small and large group consultation. Counselors work to support students through collaboration with families, school, and community resources.

**Role of the School Adjustment Counselor:** Responsible for supporting the social and emotional well being of all students in order to achieve academic success. The School Adjustment Counselor is a key member of the Student Support Team and works directly with the Counseling Department and Administration to ensure a safe and a positive school climate.

**Counselors may be contacted directly at the following numbers or by email. All counselors have voicemail.**

### **School Counselors**

Nicole Dillon 781-279-3810 x1330, ndillon@stonehamschools.org

Liz Denman 781-279-3810 x1327, ldenman@stonehamschools.org

Kristin Ronayne 781-279-3810 x1329, kronayne@stonehamschools.org

Celeste Vaughan 781-279-3810 x1328, cvaughan@stonehamschools.org

### **Adjustment Counselor**

Nicole Bonneau 781-279-3810 x1335, nbonneau@stonehamschools.org

### **School Psychologist**

Julia Anderson 781-279-3810 x1346, juanderson@stonehamschools.org

### **Behavior Specialist**

Colleen Goode 781-279-3810 x1322, cgoode@stonehamschools.org

### **Transition Specialist**

Carly Donelson 781-279-3810 x1357, cdonelson@stonehamschools.org

### **School Counseling Department Administrative Assistant**

Nancy Polizzi 781-279-3810 x1326, npolizzi@stonehamschools.org

## **SUGGESTED STEPS IN COURSE PLANNING**

The parent and the student, with the assistance of the guidance department, should plan together the subjects the student will take, both for the following year and the remainder of his/her high school years.

Three important steps, however, should precede the actual choice of subjects:

### **1. PLAN AHEAD**

Explore what the student hopes to do after graduation by discussing interests, goals and ambitions. Does the student want to go to a liberal arts or an engineering college? Does he/she prefer a two-year college or a technical school? Does the student expect to go directly into business or industry?

### **2. CHOOSE REALISTIC GOALS**

Make sure that this preliminary plan is a reasonable and realistic one that will challenge his/her ability but also one that will not demand the impossible. Several questions will help guide this planning. How good a student is he/she? What kind of school record does the student possess? Will part-time work interfere with his/her studies? How hard is the student willing to work to achieve his/her goal? The guidance department can provide parents with information that will be helpful in answering these questions.

### **3. SELECT SUBJECTS FOR NEXT YEAR**

Once possible goals beyond high school have been established, the parents and the students can proceed to the selection of subjects. To do this, students should consult the guidelines that are included in this booklet. Suggested programs for preparation for a wide variety of educational or vocational goals are listed.

## **PROMOTION AND GRADUATION REQUIREMENTS**

- Each student is required to carry seven courses
- All students should take an absolute minimum of five leveled classes
- In some cases, it may be necessary for the school to suggest a revision in the student's preliminary choice of subjects. The reason for such a change will, of course, be explained to the student, and the parent will be asked to approve any substantive changes.

### **Stoneham High School Promotion Requirements**

The total number of credits needed for graduation: 115

Promotion to Grade 10: 30 credits  
25-30 for promotion on trial

Promotion to Grade 11: 60 credits  
55 - 60 for promotion on trial

Promotion to Grade 12: 90 credits  
85 - 90 for promotion on trial

### **Stoneham High School Graduation Requirements**

1. Pass four (4) sequential English courses. For seniors, a sequential course may be the combination of two senior courses of their choice that meets graduation requirements, one each semester, if they do not elect a year-long senior course. General English electives do not meet the English Department graduation requirements.
2. Pass a minimum of fifteen (15) credits in Social Studies:
  - Modern World History
  - United States History I
  - United States History II
    - Class of 2021:
      - Pass one year-long course in Modern World History or the equivalent.
      - Pass two sequential year-long courses in U. S. History.
    - Class of 2022 and above:
      - U.S. History will be offered in Grades 9 and 10
      - Modern World History will be offered in Grade 11.
3. Pass four (4) mathematics courses that meet the following conditions: the courses involve four (4) full years or eight (8) semesters of study, including Algebra I and Geometry.
4. Pass a minimum of fifteen (15) credits in science, including biology.
5. Pass Health Education.
6. Pass ten (10) credits in Physical Education.
7. Earn five (5) credits in art and/or music courses.
8. Earn 2.5 credits in an approved technology course.
9. Beginning with the Class of 2022, students will participate in ten (10) hours of community service each year they attend Stoneham High School. Students would have a variety of participation choices of group and individual service and would be required to track the hours and supervisor contact information with an office administrator.



### Commonwealth of Massachusetts Requirement for Graduation

Students must earn a passing score on the MCAS tests in English Language Arts (ELA) and Mathematics, and one of the Science and Technology/Engineering (STE) tests (Biology, Chemistry, Introductory Physics, and Technology/Engineering) to meet their Competency Determination (CD) standard.

Because of the transition to the next-generation MCAS tests, there are currently different CD requirements depending on the student's original class, as shown in the table below. Requirements for the classes of 2021 and 2022 reflect an interim passing standard for ELA and Mathematics defining a level of achievement on the new tests that is similar to the standard on the legacy tests. **Information on future classes will be provided at a later time.** Note that students in the classes of 2021 and 2022 may be in the "Not Meeting Expectations" level (440–469) but still earn their CD.

Class of 2021 and 2022		
	Option 1	Option 2
ELA	Earn a score of 472 or higher	<ul style="list-style-type: none"> <li>● Earn a score between 455 and 471</li> <li>● Fulfill the requirements of an Educational Proficiency Plan</li> </ul>
Math	Earn a score of 486 or higher	<ul style="list-style-type: none"> <li>● Earn a score between 469 and 485</li> <li>● Fulfill the requirements of an Educational Proficiency Plan</li> </ul>
Science	Earn a score of 220 or higher	N / A

### Educational Proficiency Plans (EPPs)

An EPP must be developed for any student who does not meet or exceed the Proficient level (a minimum scaled score of 240) or next-generation equivalent on the grade 10 ELA and/or Mathematics tests.

Each EPP includes, at a minimum:

- a review of the student's strengths and weaknesses, based on MCAS and other assessment results, coursework, grades, and teacher input;
- the courses the student will be required to take and successfully complete in grades 11 and 12; and
- a description of the assessments the school will administer on a regular basis to determine whether the student is moving toward Proficiency.

### Minimum attendance Requirement

In order to graduate from Stoneham High School, one must be in attendance as a full-time student for the entire semester preceding graduation.

### **LEVELS OF INSTRUCTION**

Courses at Stoneham High School are offered at various levels. The methods of instruction and materials used are designed to meet the needs and abilities of students at each level. Other courses are offered for a heterogeneous or mixed-ability group and instruction is tailored to meet the needs of students within each class. When selecting courses, students should consult with their teachers, school counselors and parents. A description of the different levels and the expectations are noted below. Each student is encouraged to progress at his/her own rate and is provided with opportunities for maximum growth. Students need not elect the same level in all subjects. It is also possible for a student who shows a significant change in achievement to move to a different level. The various levels are noted on all transcripts or applications in order that a school, college, or employer may correctly interpret the student's achievement.

Special Note: While it is the aim of the school to give each student his/her chosen level of instruction in every course, instances may occur when this is not possible because of class size or insufficient numbers electing a certain course or level.

#### **ADVANCED PLACEMENT (AP)**

AP courses are the most rigorous courses offered at Stoneham High School. AP courses are designed for the student who demonstrates superior academic ability. Students are expected to take the Advanced Placement examinations as concluding experiences in these courses.

#### **HONORS (HON)**

Honors level courses are designed for the student who demonstrates superior academic ability. Except for the Advanced Placement courses, these are the most accelerated courses offered at Stoneham High School.

#### **ADVANCED COLLEGE PREPARATORY (ACP)**

Advanced College Preparatory courses are paced for the student who demonstrates above-average academic ability. They are rigorous and require a commitment to an in-depth study of the subject.

#### **COLLEGE PREPARATORY (CP)**

College preparatory courses are paced for students who demonstrate average academic ability. College preparatory courses provide a foundation for post-secondary education.

#### **UNLEVELED (UNL)**

Some courses do not require levels in order to be adequately presented.

### **SUGGESTED COURSE PATTERN**

Since students have different abilities, needs, and aspirations, course patterns will vary greatly from student to student. Each year teachers make level recommendations to students and parents. The final decision in course and level selection is that of the student and his/her parents.

Colleges and schools vary greatly in their requirements and in the credentials of the students they accept. The strength of a student's transcript is determined by the difficulty of the courses taken as well as the grades earned.

Colleges consider grades, quality of high school courses, class rank, standardized test scores, extra-curricular activities and special talents of the applicant in making the admissions decision. The quality of a student's high school program increases in importance with the competitiveness of the college to which he/she is applying. Within a given college or university, one major may be more competitive than another. If you have any questions concerning course patterns, consult your counselor.

### **Massachusetts State Universities and UMass Minimum Course Requirements**

Although some colleges may have additional requirements, minimum coursework which totals seventeen (17) college preparatory courses are presently required by the state universities and UMass system. A course is equivalent to one full school year of study. Courses count toward the distribution only if passed.

Subject	Requirements for entering college freshman Fall 2017 and beyond
English	4 Courses
Mathematics	4 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework) including mathematics in the final year of high school
Sciences	3 courses (from Natural Science and/or Physical Science and/or Technology/Engineering), including 3 courses with laboratory work
Social Studies	2 courses (including 1 course in U.S. History)
World Language	2 courses in a single language
Electives	2 courses (from the above subjects or from the Arts & Humanities or Computer Sciences)

Students interested in attending a Massachusetts state college or university should meet with their counselors to determine if they meet the minimum requirements.

### **THE MARKING SYSTEM**

Numerical Grade	Letter Grade	Quality Points
98 - 100	A+	4.4
94 - 97	A	4.0
90 - 93	A-	3.7
87 - 89	B+	3.4
84 - 86	B	3.0
80 - 83	B-	2.7
77 - 79	C+	2.4
74 - 76	C	2.0
70 - 73	C-	1.7
67 - 69	D+	1.4
64 - 66	D	1.0
60 - 63	D-	0.7
59 or below	F	0.0
Withdrawal	W	0.0
Passing	P	Not used for rank in class

### **RANK IN CLASS**

Students are ranked within their graduating class according to their weighted cumulative grade point average and assigned quality points.

Students are ranked at the end of each academic year and this rank is given to students during the following fall quarter.

In addition, seniors are ranked at the end of the first semester.

### **DETERMINING RANK IN CLASS**

1. Letter Grades will be translated to quality points as detailed in the Marking System chart above.
2. In addition, college level subjects will be weighted on this basis:
  - AP level Grades are weighted 1.1
  - Honors level Grades are weighted 1.0
  - Advanced College Prep. level Grades are weighted 0.5
  - College Preparatory level Grades are weighted 0.2
  - UNL Grades are unweighted
3. In no case will a weighted grade be given when a final mark in a subject is "F" or "W".
4. All subjects in the Program of Studies will carry class rank credit.

### **HONOR ROLL**

Students are placed on the Honor Roll if they meet the following requirements:

- **High Honors:** A minimum of five "A"s" and no grade lower than a "B" in all subjects.
- **Honors:** A minimum of all "B's" in all subjects.

Honor roll designations occur at the following grade reporting schedule:

- End of Quarter 1
- End of Quarter 2
- End of Quarter 3
- End of Quarter 4

### **SUMMER SCHOOL**

- A student may go to summer school to make up any course they failed during the school year, provided they meet the criterion of having received a passing grade for at least two quarters and/or one semester.
- A student must take the remedial course at the Stoneham Summer School if it is offered through the school.
- If a course is to be taken at another school, the High School Principal must grant prior permission before credit can be granted toward graduation or promotion.

### **COURSE and LEVEL CHANGES**

Significant decisions are based upon student course requests and scheduling, therefore it is prudent that students make their selections with extreme thought and planning with regard to course level, overall

course load, academic and post secondary goals, balance of schedule with rigor and electives, and courses of passion and interest. Our expectation is that students will be thoughtful and active in their course selection process and utilize their school counselor, teachers and parents to assist in course selection that is best for them.

With this in mind course and level changes are discouraged. However, we acknowledge that at times course and / or level changes are necessary to best meet the needs of students. Therefore, changes will only be permitted for the following criteria:

- A prerequisite has not been met
- A course was made up in summer school
- To correct placement in an inappropriate academic level
- To meet high school graduation or college admissions requirements

Any change, based upon the stated criteria, must also include permission from a teacher, school counselor, administrator, and parent.

#### **TIMELINE FOR CHANGING LEVELS / COURSES:**

- Requests for course changes can only be made within the first 3 days of the first semester and the first 3 days of the second semester.
- Requests for level changes can only be made within the first four weeks of Semester 1 for year long courses and within the first four weeks of each Semester for Semester length courses. Level changes are only considered for students not making effective academic progress as demonstrated by a grade average below a C- and only permitted with final approval by both Department Supervisor / Head and Principal
- Changes made within the timeline for changes will be removed from permanent record and have no bearing on any academic status.
- Any subject dropped after this period will be recorded as a W (withdrawal) for a final grade in that subject and will receive 0 quality points for their GPA calculation. The earned grade will be recorded for any quarter completed.

#### **GRADES FOLLOWING LEVEL / COURSE CHANGE:**

- If the change made is a level change within the same content area, the grades earned in the dropped course will transfer to the added course.
- If the change made is from a course in one content area to a course in a different content area at or after the 10-week quarter mark, a W will be assigned for the dropped course as the student's final course grade and will appear on the transcript as such.
  - No credit will be given for the course and it will not be calculated in the student's GPA.

#### **ALTERNATIVE EDUCATIONAL OPTIONS**

Alternative Educational Options include distance learning, dual enrollment, internships, work study and STEM pathways. All alternative educational options need prior approval from school counselors and SHS administration.

These opportunities may not count towards graduation requirements, but will count toward credit requirements. Students should discuss options with their School Counselor to ensure correct credit accumulation.

<b>DISTANCE LEARNING</b>	<b>2.5 / 5 Credits</b>
<b>Grades 11 and 12</b>	
<p>Students are offered access to a variety of courses through an accredited virtual course provider. Online courses are available for students at all levels, including AP courses not offered at Stoneham High School. Students should be self-motivated to complete online coursework. All online courses must be approved and monitored by a school administrator. Semester courses are worth 2.5 credits and year long courses are 5 credits. Final grades are calculated into the GPA. Distance learning cannot be taken in place of high school graduation requirements (except in special circumstances with permission of administration). Interested students are encouraged to speak with their School Counselor.</p>	

<b>DUAL ENROLLMENT</b>	<b>5 Credits</b>
<b>Grades 11 and 12</b>	
<p>Stoneham High School defines Dual Enrollment courses as: Courses taken at a 2 or 4-year accredited college (online or on site) where the student earns credit at the high school and the college.</p> <ul style="list-style-type: none"> <li>• A 3 credit course would typically equate to 5 credits at Stoneham High School.</li> <li>• The high school transcript will indicate the course name, the college, and credit earned.</li> <li>• The grade will be calculated into the GPA.</li> <li>• Dual Enrollment courses cannot be taken in place of high school graduation requirements (except in special circumstances with permission of administration).</li> <li>• Students who take developmental/remedial courses based on the results of the college's placement test will receive elective credit upon successful completion of the course.</li> </ul> <p>Eligibility and Program Requirements:</p> <ul style="list-style-type: none"> <li>• The student must be a high school junior or senior and making satisfactory progress toward high school graduation.</li> <li>• The student/family must accept the responsibility for all tuition and educational expenses associated with the Dual Enrollment course(s). An exception may be if the state is funding courses taken through the Board of Higher Education's Dual Enrollment Program. Please contact the college directly for cost information.</li> <li>• The student is responsible for contacting the college and registering for the college course. This includes completing any applications or placement tests.</li> <li>• The student is responsible for giving a copy of their course registration from the college to their school counselor.</li> <li>• Immediately following the completion of the course, the student is responsible for giving a copy of the official college transcript to their school counselor in order to be included on their SHS transcript.</li> <li>• Students may register for more than one college level course per semester with approval from administration.</li> </ul>	

<b>INTERNSHIP</b>	<b>2.5 Credits/Semester Course</b>
-------------------	------------------------------------

<b>Grades 11 and 12</b>	
<p>The Internship course includes both in-school and out-of-school internships and encourages students to become immersed in an occupation or career pathway of their interest. Students will explore career interests and find a suitable internship with a local community employer. This course offers students an opportunity to develop their professional skills, receive mentorship from a community employer and set goals to further define their career pathways. Students will be required to submit regular records of hours, build a Career Exploration Portfolio, complete work-readiness assignments and build a resume that includes their internship position. Students are required to attend their internship a minimum of 7.5 hours per week. Internship courses will not be added to a student's schedule after the first 15 days of a semester. This course is pass / fail.</p>	

<b>WORK STUDY</b>	<b>2.5 Credits/Semester Course</b>
<b>Grades 11 and 12</b>	
<p><i>Prerequisite: Proof of employment</i></p> <p>The work-study course is offered to students who are seeking a credit to help in balancing school course loads and part-time work positions outside of school. This course will support students in successfully navigating the working world, managing the responsibilities of holding a job and improving upon transferable skills while strengthening their work-readiness. Students will be required to submit regular records of hours worked by way of paystubs or time cards, complete work-readiness assignments and finalize a resume that includes the work-study position. Students will only be scheduled for one work study per semester, unless otherwise approved by administration. Students are required to work a minimum of 7.5 hours per week. This course is pass / fail.</p>	

## **Science, Technology, Engineering, Mathematics (STEM) Pathways**

STEM education integrates concepts that are traditionally taught as separate subjects in different classes and emphasizes the application of knowledge to real-life situations. A lesson or unit in a STEM class is typically based around finding a solution to a real-world problem and tends to emphasize project-based learning. A variation of STEM is STEAM, which includes art and design. Artistic design is becoming an important part of STEM education since creativity is an essential part of innovation. Many STEM lessons involve building models and simulating situations. A good STEM lesson ensures that students understand the connection to the real world.

Following the Project Lead The Way (PLTW) program, Stoneham Central Middle School students took a variety of STEM courses. These courses emphasized group work around critical thinking, collaboration, creation and collaboration. Stoneham High School is proud to provide students with the opportunity to continue these high quality STEM programs. We are developing three STEM pathways, Biomedical Science (Introduction to Biomedical Science, Human Body Systems, and Medical Interventions), Computer Science (Cybersecurity, Computer Science Essentials, and AP Principles of Computer Science), Engineering (Introduction to Engineering Design, Principles of Engineering). Stoneham High School will be expanding these pathways each year ultimately to provide a minimum of four courses in each pathway. When students take selected AP and PLTW courses related to the fields of engineering, biomedical science, and computer science (and earn qualifying scores on course-related exams and assessments), they may earn the AP + PLTW Student Achievement, a recognition that shows colleges and employers that students are prepared for advanced course work, and are interested in careers in the field they are studying. In addition, Stoneham High School provides students with the opportunity to take a variety of courses providing instruction in multimedia, student technology leadership and online learning,

Current PLTW Courses offered at Stoneham High School



<b>Biomedical</b>	<b>Engineering</b>	<b>Computer Science</b>
Principles of Biomedical Science	Introduction to Engineering Design	Computer Science Essentials
Human Body Systems	Principles of Engineering	Cybersecurity
Medical Interventions	Seven additional engineering courses are available through PLTW and will be determined based upon student interest(Future)	Computer Science A (Future)
Biomedical Interventions (TBD)		Computer Science Principles (Future)

# COURSE DESCRIPTIONS

Semester courses = 2.5 credits

Year long courses = 5 credits

## ENGLISH

Graduation Requirement - 20 credits

### Philosophy

The English Department follows the Massachusetts Curriculum Frameworks in teaching Reading, Writing, Language as well as Speaking and Listening Standards. Thinking critically, communicating effectively, and working both independently and collaboratively are essential skills students require to be successful after high school. Understanding how texts are structured in conjunction with multiple learning strategies prepares students for standardized tests as well as accessing challenging work. Class reading lists include relevant and multicultural selections to build engagement and offer global perspectives.

<b>ENGLISH I</b>	<b>5 Credits</b>
<p><b>1101 / Honors</b></p> <ul style="list-style-type: none"> <li>• <i>Prerequisite: Minimum grade of A- in grade 8 English and teacher approval</i></li> </ul> <p><b>1102 / Advanced College Prep</b></p> <ul style="list-style-type: none"> <li>• <i>Prerequisite: Minimum grade of B- in grade 8 English and teacher approval</i></li> </ul> <p><b>1103 / College Prep</b></p>	
<p>Students in English I explore the question, “Why do our stories matter?” Students are required to read and comment on a wide variety of classic and contemporary literature. Texts may include <i>A Midsummer Night’s Dream, 1984, Oedipus Rex, Animal Farm, A Long Way Gone</i> and <i>The House on Mango Street</i> as well as selections of Greek Myths, nonfiction, poetry and other literature from the anthology. Students write multi-paragraph literary essays in addition to persuasive speech and narrative pieces. Vocabulary and grammar are taught to improve students’ writing and reading skills as well as prepare them to pass MCAS in Grade 10.</p> <p><b>Grouping:</b> Advanced college prep and college prep students will be grouped together but graded by level.</p>	

<b>ENGLISH II</b>	<b>5 Credits</b>
<p><b>1201 / Honors</b></p> <ul style="list-style-type: none"> <li>• <i>Prerequisite: Minimum grade of a B- in Honors or an A- in ACP and teacher approval</i></li> </ul> <p><b>1202 / Advanced College Prep</b></p> <ul style="list-style-type: none"> <li>• <i>Prerequisite: Minimum grade of C- in Honors, B- in ACP, or A- in CP and teacher approval.</i></li> </ul> <p><b>1203 / College Prep</b></p>	
<p>Students in English II explore the question, “What does it mean to be human?” Texts may include <i>To Kill a Mockingbird, A Lesson Before Dying, Lord of the Flies, A Separate Peace, Out of the Dust, Macbeth</i>, short stories, poetry, nonfiction, and other literature from the anthology. Students write multi-paragraph literary and argument essays, creative and narrative pieces, and a persuasive project. Grammar and vocabulary are stressed to prepare students to pass MCAS as well as the SAT their junior year. The writing process is emphasized.</p>	

<b>ENGLISH III</b>	<b>5 Credits</b>
<b>1302 / Advanced College Prep</b> <ul style="list-style-type: none"> <li>• <i>Prerequisite: Minimum grade of C- in Honors, B- in ACP, or A- in CP and teacher approval</i></li> </ul> <b>1303 / College Prep</b>	
<p>Students in English III explore American literature by studying texts such as <i>The Crucible, The Scarlet Letter, The Great Gatsby, Being Henry David, The Catcher in the Rye, Sing, Unburied, Sing</i>, as well as Puritanism, Transcendentalism, poetry, non-fiction pieces and other literature from the anthology. Students are expected to develop critical reading, thinking, and writing skills. Creative approaches to writing about literature is part of the curriculum. In addition, expository essays will culminate with writing a literary research paper. Vocabulary and grammar review are geared toward preparing students for standardized tests.</p>	

<b>1301 AP ADVANCED PLACEMENT LANGUAGE AND COMPOSITION</b>	<b>5 Credits</b>
<b>Advanced Placement</b> <b>Grade 11</b>	
<p><i>Prerequisite: Minimum grade of B- in Honors or A- in ACP and teacher approval.</i></p> <p>This college-level course provides an analytical study of nonfiction, literature, and language within a comprehensive program of reading, writing, and critical thinking. The curriculum is comprised of challenging works of recognized literary merit that will help students understand the effective use of rhetoric as well as organize their ideas in a clear, coherent, and persuasive manner. Rhetorical analysis, argument, and synthesis essays are central to the course. Texts may include <i>The Scarlet Letter, The Great Gatsby, As I Lay Dying, Sing, Unburied, Sing</i>, poetry, nonfiction pieces and other literature from the anthology. Timed essays and multiple choice practices will prepare students for the AP Language and Composition exam in May.</p> <p><b>Student Fee Required:</b> Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.</p>	

## SENIOR ENGLISH IV OPTIONS

Seniors may choose two Senior English Choices (one each semester) if they do not elect *AP Literature and Composition* or *Traditional British Literature*. Successful completion of TWO, semester English Choices will fulfill the graduation requirement.

<b>1401 AP ADVANCED PLACEMENT LITERATURE AND COMPOSITION</b>	<b>5 Credits</b>
<b>Advanced Placement</b> <b>Grade 12</b>	
<p><i>Prerequisites: a B- in AP Language and Composition or an A- in ACP English III and English teacher approval.</i></p> <p>AP English Literature and Composition represents a rigorous challenge through the exploration of literature that probes the very essence of human existence. Students are introduced to various literary genres from around the world, including an intense study of poetry. Major texts include <i>Tess of the D'Urbervilles, Hamlet, Crime and Punishment, Rosencrantz and Guildenstern Are Dead, As You Like It, Heart of Darkness, Waiting for Godot</i>, and <i>The Joy Luck Club</i>. Students also complete a senior symposium project to prepare them for college research.</p>	

**Student Fee Required:** Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.

<b>TRADITIONAL BRITISH LITERATURE</b>	<b>5 Credits</b>
---------------------------------------	------------------

**1452 / Advanced College Prep**

- *Prerequisite: Minimum grade of C- in AP Lang & Comp, B- in ACP, or A- in CP. All require teacher approval.*

**1453 / College Prep**

**Grade 12**

Senior English is a year-long class that explores the importance of indirect and direct characterization in British literature starting with *Beowulf* and moving through the Victorian Age. Other texts studied may include selections from the anthology, Arthurian Tales, *Canterbury Tales*, *Hamlet*, *Pride and Prejudice*, and pieces of satire and social criticism. Students write college and literary essays with a focus on analysis and literary criticism. SAT preparation and writing the college essay are covered in the first semester.

<b>WOMEN'S LITERATURE</b>	<b>2.5 Credits/Semester Course</b>
---------------------------	------------------------------------

**1411 / Honors**

- *Prerequisite: Minimum grade of B- in AP Lang & Comp or an A- in ACP and teacher approval.*

**1412 / Advanced College Prep**

- *Prerequisite: Minimum grade of C- in AP Lang & Comp, B- in ACP, or A- in CP. All require teacher approval.*

**1413 / College Prep**

**Grade 12**

This semester course introduces students to representative works by and about women from historical, social, and literary perspectives. Students will learn how gender roles develop and change and how women's views of themselves are reflected in their writing. Students read, as a class, *The Handmaid's Tale*, and based on interest and level, class texts may include: *Pride and Prejudice*; *Their Eyes Were Watching God*; *The River Runs Salt*, *The River Runs Sweet*; *The Bluest Eye*; *Homegoing*; *Sold*; *Persopolis*; *Speak*; *A Time to Dance*; *Secret Life of Bees*; *The Impossible Knife of Memory*; and *The Glass Castle* as well as poetry, short stories, memoirs, and nonfiction articles. Some levels also require students to read an outside book. By the end of the course, students should be able to demonstrate an understanding of the literary and social movements that frame the texts, and the elements of those text such as symbols, themes and points of view. SAT preparation and writing the college essay are covered in the first semester.

<b>THE HERO'S QUEST</b>	<b>2.5 Credits/Semester Course</b>
-------------------------	------------------------------------

**1422 / Advanced College Prep**

- *Prerequisite: Minimum grade of C- in AP Lang & Comp, B- in ACP, or A- in CP. All require teacher approval.*

**1423 / College Prep**

**Grade 12**

This semester course will explore the archetype of the hero and his/her quest. Examining the concept of the hero and the metaphor of the journey, students will explore how a character's strength, knowledge, bravery, courage,

fear, relationships and other elements of the hero enables the hero's fulfillment of the quest and journey. In addition to literary analysis and narrative responses, students will create a multimedia exhibition that presents their understanding of the hero's quest. Based on interest and level, texts may include, *Beowulf*, *Ender's Game*, *Unbroken*, *A Man Called Ove*, *Into Thin Air*, *Ready Player One*, and *The Lightning Thief*. Some levels also require students to read an outside book. SAT preparation and writing the college essay are covered in the first semester.

<b>UNDERSTANDING CULTURE THROUGH GLOBAL LITERATURE</b>	<b>2.5 Credits/Semester Course</b>
--	------------------------------------

**1461 / Honors**

- *Prerequisite: Minimum grade of B- in AP Lang & Comp or an A- in ACP and teacher approval.*

**1462 / Advanced College Prep**

- *Prerequisite: Minimum grade of C- in AP Lang & Comp, B- in ACP, or A- in CP. All require teacher approval.*

**1463 / College Prep**

**Grade 12**

This semester course provides students with an opportunity to read and experience the literature of diverse races and cultures, and perspective. Students will compare cultural and historical literature from a variety of countries that may include class sets of memoirs such *Night*, *A Long Way Gone*, *I am Malala*, and *First They Killed My Father*, *One Hundred Years of Solitude*, *A Thousand Splendid Suns*, *Kaffir Boy*, *The Kite Runner*, *the Boy in the Striped Pajamas*, *Soldier Boys, Sold*, *Inside Out and Back Again*, and *The River Runs Salt, Runs Sweet* as well as poetry, short stories, and personal narratives. Writing assignments will include topics of personal identity and voice along with issues of power, prejudice, race, class, culture, immigration and family. Although a common reading will be used in the first quarter, much of the class will incorporate a student-led approach in which each member of the class selects and presents a different work of literature from a separate list. SAT preparation and writing the college essay are covered in the first semester.

**GENERAL ENGLISH ELECTIVES**

The following general electives **do not fulfill** the English Department graduation requirements.

<b>CREATIVE WRITING</b>	<b>2.5 Credits/Semester Course</b>
-------------------------	------------------------------------

**1512 Advanced College Prep**

- *Prerequisites: Minimum of a B- in either sophomore or junior English (level does not matter).*

**1513 College prep**

**Grades 11-12**

This course is structured as a workshop. Students must be self-motivated to write. Students interested in creative writing or improving their writing in preparation for college essays should take this class. Students will read numerous examples of college essays, poetry, and articles in addition to completing their own writing. Part of the workshop is sharing work in a collaborative setting that involves peer-editing.

<b>FILM STUDY</b>	<b>2.5 Credits/Semester Course</b>
-------------------	------------------------------------

**1502 Advanced College Prep**

- *Prerequisites: Minimum of a B- in either sophomore or junior English (level does not matter).*

**1503 College prep  
Grade 12**

In this course, students will view and study a variety of award-winning films in four categories: Hero's Journey, Human Growth and Reflection, Historical Fiction, and Genocide and Human Ignorance/Triumph. Students will discuss the films as well as write in various genres including journals and critical essays. Elements of basic film are taught and debated.

## **FAMILY & CONSUMER SCIENCE**

### **Philosophy**

The Family and Consumer Science Department offers courses that help students build practical life skills. Each course emphasizes decision making, management of resources, problem solving and critical thinking techniques. Students who successfully complete courses in the Family and Consumer Science Department will be prepared to pursue college studies in early childhood education; culinary arts and restaurant management; fashion design, technology and merchandising; and social service fields.

<b>8154 FOODS AND NUTRITION</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 9-12</b>	
Introduction to Foods and Nutrition emphasizes the fundamental areas of nutrition and basic food preparation. Students will broaden their understanding of the impact of food on their lives, including the link between diet and health. Throughout the course, students will gain confidence in their basic preparation and artistic presentation of food. Students will also practice valuable consumer skills, including comparison shopping, the understanding of nutrition information on food labels and the basic principles of food safety. <b>This course is a requirement for most culinary courses.</b>	
Text: Largen and Bence. <a href="#">Guide to Good Food</a> .	

<b>8114 SPORTS NUTRITION</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 9-12</b>	
Sports Nutrition is a course in which students will be introduced to the foundations of nutrition science, with special focus on areas relevant to high school students and student athletes. Nutrition for athletes and links between nutrition and health will be emphasized. Students will consider the role of dietary supplements and the dangers of anabolic steroids as well as other performance enhancing drugs. Central to the course will be a discussion and exploration of current events and controversies as they relate to sports nutrition. Students will practice converting unhealthy recipes to healthier ones. Note: Students will not cook in this class.	
Text: West. Goodheart-Wilcox Company. <a href="#">Nutrition, Food, and Fitness</a>	

<b>8234 INTERNATIONAL FOODS</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled</b>	

**Grades 9-12**

*Prerequisite: Foods and Nutrition*

In International Foods, students will research, plan, prepare and evaluate a variety of international foods. Students will uncover the similarities and appreciate the differences between foods from different regions of the world. Students will explore the geographic, cultural and historical roots of foods in particular regions. Travel around the world in ninety days and experience the culture and cuisine of the various countries.

Text: Wiley. Professional Cooking.

**8253 FUNDAMENTALS OF BAKING**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 10-12**

*Prerequisite: Foods and Nutrition*

This course will provide students with an introduction to basic baking terminology, commonly used ingredients and effective methods. Students will discuss techniques in each class session and apply them to the actual production of baked items including: yeast breads, cookies, Danish dough, quick breads, pate choux, tarts, and pies. Students will analyze the components of baked goods and will learn how to evaluate the finished product. Additionally, students will demonstrate proper sanitation and safety techniques in the bakery.

Text: Glissen & Wiley. Wiley Publishing. Professional Baking.

**CULINARY ARTS I**

**5 Credits/Semester Course**

**8212 / Advanced College Prep  
8213 / College Prep  
Grades 11-12**

*Prerequisite: Foods and Nutrition*

Culinary Arts I will offer the motivated culinary student the opportunity to learn and practice advanced food preparation techniques and develop effective time and money management skills. Students will learn to conduct a nutritional analysis, and experiment with quality control and food product marketing skills. Students will plan and prepare food products for their small business: Sparty's Cafe. **This class meets in a double block during the first semester.** Students wishing to continue in Culinary Arts may register for Culinary Arts II.

Text: Glissen & Wiley. Wiley Publishing. Professional Baking.  
Glissen & Wiley. Wiley Publishing. Professional Cooking.

**CULINARY ARTS II**

**5 Credits/Semester Course**

**8222 / Advanced College Prep  
8223 / College Prep  
Grades 11-12**

*Prerequisite: Foods and Nutrition*

Culinary Arts II is the continuation of Culinary Arts I and will offer the motivated culinary student the opportunity to learn and practice advanced food preparation techniques and develop effective time and money management skills. Students will learn to conduct a nutritional analysis, and experiment with quality control and food product marketing skills. Students will plan and prepare food products for their small business: Sparty's Cafe. **This class meets in a double block during second semester.**

Text: Glissen & Wiley. Wiley Publishing. [Professional Baking.](#)  
 Glissen & Wiley. Wiley Publishing. [Professional Cooking.](#)

<b>8274 ADULT SKILLS</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled</b> <b>Grades 11 - 12</b>	
<p>This interdisciplinary course will allow students to learn about, discuss and practice the key, practical skills needed to survive in the real world. Students will learn kitchen safety, how to compose a professional email, apply for a job, basic car maintenance, laundry skills and how to plan a budget. This course, designed for students at all academic levels, will provide hands-on opportunities for students to master skills crucial to success after high school.</p>	

<b>CHILD DEVELOPMENT I</b>	<b>2.5 Credits/Semester Course</b>
<b>8312 / Advanced College Prep</b> <b>8313 / College Prep</b> <b>Grades 9-12</b>	
<p>This course will focus on the basic principles of child development, the role of families and the early growth and development of children. Students will be introduced to prenatal development, the characteristics of newborns and infants. Students will explore the physical, social and emotional development of newborns and infants. This course will incorporate a hands-on approach using RealCare Baby to simulate the care of an infant and to learn about issues in infant care. Guest speakers will be invited frequently to discuss areas of parenting and current parenting issues. This course is a prerequisite for both Child Development II and Early Childhood Studies.</p>	
<p>Text: Brisbane. <a href="#">The Developing Child.</a></p>	

<b>CHILD DEVELOPMENT II</b>	<b>2.5 Credits/Semester Course</b>
<b>8412 / Advanced College Prep</b> <b>8413 / College Prep</b> <b>Grades 9-12</b>	
<p><i>Prerequisite: Child Development I</i></p> <p>This course builds upon the basic principles of child development examined in Child Development I and focuses on the growth and development of toddlers and preschoolers. It will allow students to explore the physical, social, emotional, and intellectual growth of toddlers and preschoolers. Guest speakers and their children will visit often to share their experiences raising and caring for young children.</p>	
<p>Text: Herr. <a href="#">Working with Young Children.</a></p>	



<b>EARLY CHILDHOOD STUDIES</b>	<b>5 Credits/Semester Course</b>
<b>8432 / Advanced College Prep</b> <b>8433 / College Prep</b> <b>Grades 11-12</b>	
<i>Prerequisite: Child Development II</i>	
<p>Through on-site work with young elementary students, participants in this course will learn first-hand about teaching and interacting with preschool, kindergarten and first grade children. The students will participate in planning and implementing classroom activities for children through internships in local schools. The students will work closely with a cooperating teacher as well as the high school Child Development teacher to learn how to successfully implement plans in the classroom. This is a valuable opportunity for high school students to explore career possibilities in early childhood education. This course may be taken for first semester only, or for both semesters. Only students who take the course during the first semester will be permitted to enroll for second semester. <b>Early Childhood Studies will meet in a double block in order to facilitate working in the local elementary and preschool classrooms.</b></p>	

<b>8504 FASHION AND CONSTRUCTION</b>	<b>2.5 Credits/Semester Course</b>
<b>Grades 9-12</b> <b>Unleveled</b>	
<p>This course is an introduction to fashion, with a focus on clothing construction and design. Students will learn to use sewing equipment and tools, practice hand and machine sewing techniques. Students will also consider the elements of pattern selection and fit, and color theory. After students construct an introductory project, they will complete one and items of their choice to finish the semester. Students will work in the classroom to develop the skills needed to construct garments, accessories or home décor projects. The course will also touch on careers in the field and the class may also participate in a community service project. <i>Students will be responsible for providing their own course fabric and materials for projects.</i></p>	

<b>8514 ADVANCED FASHION CONSTRUCTION AND DESIGN</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled</b> <b>Grades 9-12</b>	
<i>Prerequisite: Fashion and Construction</i>	
<p>This course is a continuation of the Fashion and Design class and is geared toward students interested in improving their skills. Students in this course will be able to pursue their interests in construction and design, building on the skills they have previously learned. Students will work with more difficult fabrics and patterns, experiment with basic design and pattern making techniques, and learn how to alter existing patterns to create unique garments or interior design projects. <i>Students will be responsible for providing their own course fabric and materials for projects. This course may be repeated with permission of the instructor.</i></p>	

## **FINE AND PERFORMING ARTS**

**Graduation Requirement - 5 credits in art and/or music classes**

**Philosophy**

Stoneham High School recognizes that the arts are a vital component of 21st century learning. The arts prepare our students with the skill set they will need to become successful, well-rounded thinkers. Our philosophy is aligned with the Massachusetts state standards which center around the principles of Creating, Presenting, Responding and Connecting. We offer a program of rigorous, relevant courses that support social and emotional growth, promote family and community engagement, are inclusive, make connections across disciplines, represent diverse cultures, and foster artistic literacy. Strong Arts = Strong Schools = Strong Towns.

<b>9103 ART 1</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 9-12</b>	
This foundation course in Fine Arts will introduce students to the basic language of art through studio experiences in painting, drawing, collage, sculpture and graphic design. The study and discussion of significant works of art will be incorporated. Student work is displayed throughout the school during the year and returned to students at the conclusion of the year.	

<b>9104 ART 2</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 10 – 12</b>	
<i>Prerequisite: A B- or higher in Introduction to Art / Art 1</i>	
This course is designed for highly motivated art students who wish to improve their skills and technique through an in-depth exploration of drawing, printmaking and painting. This course serves as a bridge between Art 1 and the more advanced art courses, such as Studio Art.	

<b>9105 ART 3</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 10 - 12</b>	
<i>Prerequisite: A B- or higher in Art 2 or recommendation from teacher</i>	
Art III is for students wishing to continue with the sequential art electives, and serves as a bridge between the basic art classes and our portfolio (Studio) class. This course offers a concentrated study in areas selected by the student, with the goal of students becoming more self-directed in their art-making processes. Students will continue to develop their skills in art-making and creative problem solving, and further expand their knowledge of current and historical works of art. This class is also ideal for those students who may not be able to fit the Studio class in their schedule, but would still like to build a portfolio for college.	

<b>9100 HONORS STUDIO ART</b>	<b>5 Credits</b>
<b>Honors 9102 / Advanced College Prep</b>	

**Grades 11-12**

*Prerequisite: Art 1 with a minimum B- average. Students must obtain the recommendation of their current art teacher and the Studio Art instructor. Part of the selection process will be analyzing 6-12 pieces of the student's best art work.*

This course is designed for the highly motivated art student, including those who may be planning a career in art. Course content includes advanced drawing, painting, sculpture, design, and printmaking. Individual research in art history and appreciation will be included. This course may be repeated with the approval of the instructor.

**9100 AP ADVANCED PLACEMENT STUDIO ART**

**5 Credits**

**Advanced Placement  
Grades 11-12**

*Prerequisite: Art 1 with an A- average. Students must obtain the recommendation of their current art teacher and the Studio Art instructor. Part of the selection process will be analyzing 6-12 pieces of the student's best art work.*

This course is designed for the highly motivated art student, including those who may be planning a career in art. Course content includes advanced drawing, painting, sculpture, design, and printmaking. Individual research in art history and appreciation will be included. This course may be repeated with the approval of the instructor.

**Student Fee: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.**

**9460 MIXED MEDIA/COLLAGES**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9 – 12**

*Prerequisite: Art 1*

This course introduces students to a variety of collage/assemblage techniques. Students will experiment with a range of materials and processes to create both 2-dimensional and 3-dimensional work. This course will also explore the work of mixed media artists and will incorporate these ideas and techniques into their own artwork.

**9600 CRAFTS DESIGN**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9-12**

This course focuses on the utilitarian designs of both the traditional and contemporary crafts world. Students will design and produce finely crafted works such as a hand-bound book, block and rubber stamp prints, stencils, soft sculptures and collage/assemblage works.

**9515 CERAMICS 1**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9 – 12**

Ceramics and pottery will be taught. This will include experiences with various clay bodies, glazing, and various building techniques including raising a bowl on the electric wheel. This is a semester course that may be repeated with the permission of the instructor.

**9517 Ceramics 2**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 10 - 12**

Prerequisite: Ceramics 1

This course builds upon the foundation skills gained in Ceramics 1. Experimental and advanced construction and surface design techniques will be introduced. Emphasis will be placed on the communication of ideas and individual creative expression using the unique qualities of clay combined with deliberate finishing techniques.

**9625 SCULPTURE**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9 – 12**

*Prerequisite: Art 1*

Using a wide variety of materials, the three-dimension process of additive, subtractive and casting methods will be covered. The appreciation and study of the history of sculpture will also be included.

**9475 ADVANCED 3D ART**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 10 – 12**

*Prerequisite: A B- or higher in Ceramics or Sculpture and teacher recommendation*

This course is designed for advanced art students who wish to continue their exploration of three-dimensional or ceramic materials. Students will create works that are varied and complex. This is a semester course that may be repeated with the permission of the instructor.

**9697 DIGITAL DESIGN**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 11-12**

*Prerequisite: A grade of B- or higher in Art 1*

This course introduces basic to intermediate Photoshop techniques. Students will learn how to generate, manipulate, and print images using Adobe Photoshop software. Basic to intermediate computer skills are required.

Access to a digital camera is strongly recommended.

**9415 PHOTOGRAPHY**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9-12**

*Prerequisite: Art 1*

This is a course in basic black and white photography. Students will be introduced to all aspects of the photographic process including developing film and printing enlargements from negatives. The course will also address a brief history of photography as well as discussions about contemporary photographers. Students will spend time writing about their own photographs as they complete projects.

**A 35mm manual camera is required for this course.** The school does have limited cameras available for students who do not have one.

**9420 ADVANCED PHOTOGRAPHY**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 10-12**

*Prerequisite: A B- or higher average in Photography and permission of instructor*

This is a continuation of Photography. Concepts of lighting, framing, composition, depth of field and subject matter will be presented. The work of famous photographers and photo movements will be discussed as well as their role in the history of photography. Students will produce work based on a series of assignments and will create a body of work based on individual themes. Students will learn how to critique their work in order to improve techniques.

**A 35mm manual camera is required for this course.** The school does have limited cameras available for students who do not have one.

**9455 EXPERIMENTAL PHOTOGRAPHY**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9 – 12**

*Prerequisite: Art 1*

This course will explore a variety of alternative and experimental processes and will discuss how they were developed throughout history. Students will learn techniques for making cameras, altering photographs and experimenting with photos and negatives in the darkroom. Students will also have the opportunity to shoot with alternative cameras in class. A 35 mm camera is not required for this course but can be used.

**9200 SPARTAN CHORALE**

**5 Credits**

**Honors/Advanced College Prep/College Prep  
Grades 9-12**

Spartan Chorale is a comprehensive choral experience encompassing singing, sight reading, ear training, creative expression, conducting and performance. Choral works of every style and period will be studied and performed. Opportunities for participation in the school musical, District and All -State Chorus, and concerts both in Stoneham and out of town will be provided. Participation is required in several evening performances each semester. Regular assignments supplement class work. This course may be repeated.

<b>9300 SPARTAN BAND</b>	<b>5 Credits</b>
<b>Honors/Advanced College Prep/College Prep Grades 9-12</b>	
Open to all qualified musicians who play band instruments. Opportunities to study literature are provided. Through rehearsals and public appearances, the student will come to view music from the perspective of the performer. Technical skills and sight-reading will be stressed. Students will be required to participate in all concerts and performances. Homework will be assigned consistent with the policy of the Stoneham Public Schools. It is recommended that all students in Spartan Band take private lessons on their instruments. Students will select a level of instruction (HON, INT, COMP) within the first three weeks of the course. There are special requirements to earn Honors credit in the band. This course may be repeated.	

<b>9320 JAZZ ENSEMBLE</b>	<b>5 Credits</b>
<b>Honors/Advanced College Prep/College Prep Grades 9-12</b>	
<b><i>Prerequisite: Approval from Teacher</i></b>	
Jazz Ensemble is open to musically qualified instrumentalists (students in band or with equivalent experience). The course focuses on performance styles in the jazz idiom including swing, jazz-rock fusion, Latin and ballad. Periods of jazz history are explored through listening. There is an emphasis on developing skills in improvisation. Jazz Ensemble members perform at school concerts or events outside of school.	

<b>9574 THEATER ARTS</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 9 – 12</b>	
This workshop course will enable students to develop acting skills through the study of improvisation, stage movement and character development. Students will work on voice production, diction, script analysis and directing, using monologues and short scripted and unscripted scenes. This course may be repeated for more in-depth study and development. This is a semester course that may be repeated with the permission of the instructor.	

<b>9334 MUSIC APPRECIATION</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 9 – 12</b>	
This is a music history class with an emphasis on listening. Masterpieces of music from medieval to modern periods will be discussed, including styles, types and composers including jazz, blues, and rock styles. Students will gain an understanding of musical elements such as melody, harmony, rhythm, meter and form. There will	

possibly be field trips to such places as Symphony Hall, Jordan Hall, and the Berklee Performance Center. This is not a performance class.

<b>9350 TWENTIETH CENTURY POPULAR MUSIC</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 9 – 12</b>	
<p>This is a music history survey course with an emphasis on critical listening and analysis skills. The course will trace the roots and development of contemporary popular music by dissecting the popular forms of the past. Stylistic periods that we will work with include the Parlor songs and Ragtime music of the turn of the 20th century, the influence of the American musical theater on popular songs, the Swing Era, the development of Rock ‘n Roll after World War II, and the rise of urban styles including disco, rap, and rhythm and blues. These stylistic periods will be linked to the historical trends, technological advances, and major events that formed them as well as the innovators, songwriters, and star performers who made the music famous. Opportunities for creating music in the representative styles will be explored.</p>	

## **HEALTH EDUCATION**

### **Graduation Requirement - 2.5 Credits**

#### **Philosophy**

The Health Education courses offered at SHS are designed to provide students with the necessary factual knowledge, skills and strategies that will allow them to make informed decisions, and to demonstrate responsible and respectful behavior towards themselves and others. The evidence-based curriculum promotes healthy decision-making, provides current, relevant data and teaches the personal skills that enable students to confront the many social, physical and emotional challenges that occur throughout their adolescent years and also their lifetime.

The curriculum addresses issues of adolescent development including: nutrition, body image, fitness and exercise, human sexuality, substance use, addiction, healthy and unhealthy relationships and social/emotional issues. Interwoven into the curriculum are skill-based strategies including problem solving, communication techniques, conflict resolution, refusal skills and decision-making models.

The Stoneham High School Health Education course content is supported by data from the Stoneham, Middlesex League and the Massachusetts Youth Risk Behavior Surveys and adheres to the National Health Education Standards and the Massachusetts Health Curriculum Frameworks. This course is part of a comprehensive 5-12 health education curriculum. Health education is mandated by state law and is a requirement for graduation.

**All Physical Education, Health and Wellness courses are taught at the College Preparatory designation**

<b>5855 HEALTH EDUCATION</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grade 10</b>	

This discussion based course covers a variety of adolescent health issues including nutrition, body image, fitness and exercise, human sexuality, addiction, healthy and unhealthy relationships and social/emotional issues. The focus of the course is to promote healthy decision-making. A variety of current information sources are used during the course including guest speakers. This course is required for graduation and it is recommended that it be taken during the sophomore year. Student portfolios are a course requirement.

<b>5534 CURRENT HEALTH ISSUES</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled</b> <b>Grades 11 – 12</b>	
<i>Prerequisite: Health Education</i>	
<p>This course is an expansion of the tenth grade health curriculum. The focus of this course is to encourage students to develop healthy habits that will lead to a future healthy lifestyle. This discussion-based course will deal with current health issues and their impact on society. It will also include visiting speakers. Some of the topics will include: body image, human sexuality, addiction, media analysis, safety, community health, and healthy relationships. This course will be helpful to students as they move beyond high school. <b>This course does not fulfill the Health Education graduation requirement.</b></p>	

<b>5544 HEALTH CAREERS</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled</b> <b>Grades 10 – 12</b>	
<i>Prerequisite: Health Education</i>	
<p>Students will learn about various health careers that are available. Connections with local hospitals will be made so that students explore a variety of health occupations. Guest speakers will be invited to the class to discuss a range of career options. <b>This course does not fulfill the Health Education graduation requirement.</b></p>	

<b>5845 HEALTHY CHOICES</b>	<b>2.5 credits/Semester Course</b>
<b>Unleveled</b> <b>Grade 9</b>	
<p>The semester course is to empower students to develop and requisite knowledge, skills and attitude so that they may develop and maintain lifelong health and wellness and resist social influences. Lessons that address <b>communication</b>, assertiveness, decision-making, risk reduction, problem solving and goal setting will develop social emotional skills while empowering students to make informed decisions and lower risk choices. Students will work to develop their personal and interpersonal skills to help them resist the negative pressures and youth risk behaviors. This course does not fulfill the Health Education graduation requirement.</p>	

<b>5755 PEER LEADERSHIP</b>	<b>5 Credits</b>
<b>Unleveled</b> <b>Grades 11-12</b>	



*Prerequisite: There is an application and selection procedure for this course. To be considered for admission, a student must fill out an application, which includes three teacher references. A personal interview is also required. A selection committee carefully reviews the applications. A maximum of 30 students is selected.*

Once selected, the students in this class will be trained by the Anti-Defamation League's a WORLD OF DIFFERENCE peer trainers. The training will provide students with the skills and resources necessary to design and lead interactive workshops for their peers and other students. The role of a student in the Peer Leadership class is to create and run anti-bias educational workshops for their peers and to be role models for civility and respect. Students must have the willingness to take a stand against prejudice and be willing to make a commitment to creating a positive social atmosphere at Stoneham High School. Each student will be responsible for participating in several school - based projects throughout the year. **This course does not fulfill the Health Education graduation requirement.**

## HISTORY AND SOCIAL SCIENCES

### Graduation Requirements - 15 Credits

#### Philosophy

In history and social sciences students do the work of historians, social scientists, sociologists, lawyers, economists, and entrepreneurs. They analyze, investigate, classify, compare, hypothesize, question, create, and debate. Our courses seek to provide students with knowledge and skills to help them become thoughtful participants in a democratic society and in an increasingly complex world. We offer experiences, both in and out of the classroom, to help students to understand local, state, national, and international issues, to respectfully discuss complex and controversial issues and ideas with people of different views, to speak and write with clarity and conviction, and to take principled, informed action where appropriate.

#### Course offerings per grade level 2020-2021

Required Courses (all Full Year)			
Grade 9	Grade 10	Grade 11	Grade 12
USI Honors**	APUSH**	AP World History**	
USI ACP	US II ACP	Mod World History ACP	
USI CP	US II CP	Mod World CP	
Elective Courses (Semester Courses unless otherwise noted)			
Grade 9	Grade 10	Grade 11	Grade 12
Money 101	Money 101	Money 101	Money 101
	International Relations	International Relations	International Relations
** courses that have a prerequisite		Psychology (FY)	Psychology (FY)
		AP Psychology (FY)	AP Psychology (FY)
		Contemporary Issues	Contemporary Issues

	Facing History	Facing History
	Civic Action Seminar	Civic Action Seminar
	Advanced History Research	Advanced History Research
	Econ I--Micro	Econ I--Micro
	Econ II-- Macro	Econ II-- Macro
	Entrepreneurship**	Entrepreneurship**
	Investing Opportunities**	Investing Opportunities**
		AP Economics (FY)

<b>UNITED STATES HISTORY I</b>	<b>5 Credits</b>
<p><b>REQUIRED FOR ALL GRADE 9 STUDENTS</b>  <b>2601 / Honors</b></p> <ul style="list-style-type: none"> <li>• <i>Prerequisite: minimum grade of A- in Civics <b>and</b> recommendation of the grade 8 teacher. Summer Reading may be required at the Honors level.</i></li> </ul> <p><b>2602 / Advanced College Prep</b>  <b>2603 / College Prep</b>  <b>Grade 9</b></p>	
<p>Students begin their study of United States history at Stoneham High School with a review of Constitutional principles and events of the early Republic. They examine the causes and consequences of the Civil War, industrialization, immigration, America’s entry into World War I and its impact on the United States, and the early 20<sup>th</sup> century quest for social justice for all citizens. This course will help students build research, critical reading, and analytical writing skills. As part of the course work, students may be required to participate in National History Day.</p> <p>Text: Prentice Hall: <u><a href="#">Pathways to the Present.</a></u></p>	

<b>UNITED STATES HISTORY II</b>	<b>5 Credits</b>
<p><b>REQUIRED FOR ALL GRADE 10 STUDENTS</b>  <b>2702 / Advanced College Prep</b>  <b>2703 / College Prep</b>  <b>Grades 10</b></p>	
<p>This course will explore the history of the United States from the end of World War I through the present day. Students will continue their study of United States history by examining the Great Depression and the New Deal, World War II, the Cold War, the Civil Rights Movement and the cultural upheaval of the 60’s and 70’s, the conflict in Southeast Asia, the spread of globalization, conflict in the Middle East and terrorism in the 21st century. Special attention will be paid to understanding current events and building research, critical reading, writing and media literacy skills. As part of the course work, students may be required to participate in National History Day.</p> <p>Text: Prentice Hall: <u><a href="#">Pathways to the Present.</a></u></p>	

<b>2311 AP ADVANCED PLACEMENT UNITED STATES HISTORY II</b>	<b>5 Credits</b>
<b>Advanced Placement Grade 10</b>	
<i>Prerequisite: A grade of "B-" or higher in US I Honors or teacher approval</i>	
<p>This course completes the study of U.S. History begun in grade 10. Emphasis will be placed on the major trends of U.S. domestic and foreign policy in the 20<sup>th</sup> century. Events and issues to be highlighted will include: the Spanish American War, WWI, the Roaring Twenties, WW II, the Cold War, the Civil Rights Movement, Vietnam, Watergate, Reaganomics, globalization, conflict in the Middle East and terrorism in the 21st century. Students will hone their skills in historical research and interpretation and analysis of primary source documents. As part of the course work, students may be required to participate in National History Day. Students may be assigned summer reading.</p> <p><b>Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.</b></p> <p>Text: McDougall Littell: <a href="#"><u>The American Pageant.</u></a></p>	

<b>MODERN WORLD HISTORY</b>	<b>5 Credits</b>
<b>REQUIRED FOR ALL GRADE 11 STUDENTS</b> <b>2906 / Advanced College Prep</b> <b>2907 / College Prep</b> <b>Grades 11</b>	
<p>In Modern World History, students study key moments in global history from approximately 1700 to the present. This course focuses on helping students understand the sweep of history by exploring the social, economic, and political forces that have shaped the contemporary world. Topics include the rise of nation-states, the consequences of industrialization, patterns of mass migration, colonialism and decolonization, war and genocide in the 20th century, the Cold War period, globalization, and the rise of terrorism. Emphasis will be placed on the skills historians use to construct arguments, including analyzing primary and secondary source documents. As part of the course work, students may be required to participate in National History Day.</p>	

<b>2905 AP ADVANCED PLACEMENT WORLD HISTORY: MODERN</b>	<b>5 Credits</b>
<b>Advanced Placement Grades 11</b>	
<i>Prerequisite: minimum grade of B- in AP United States History or a grade of A- in US History II and teacher approval</i>	
<p>AP World History: Modern is an introductory college-level modern world history course. Students cultivate their understanding of world history from c. 1200 CE to the present by analyzing historical sources, making connections, and crafting historical arguments. They explore concepts such as humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. This course will have summer work.</p> <p><b>Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.</b></p>	

<b>PSYCHOLOGY</b>	<b>5 Credits</b>
<b>2405 / Advanced College Prep</b> <b>2406 / College Prep</b> <b>Grades 11 - 12</b>	
<p>This full year course is designed for students interested in pursuing psychology in college or for students entering health related fields. The course will give students an in-depth and expanded program to investigate the human mind, human behavior, and human experience. Emphasis is given to the methods of scientific research, the function of the human mind and brain, sensation and perception, cognitive psychology and development, stress and conflict, altered states of consciousness, and psychological disorders and treatment. A variety of demonstrations will be utilized to highlight the topics explored. Major focus will be given to the students' understanding of their own behavior and that of others.</p>	

<b>2501 AP ADVANCED PLACEMENT PSYCHOLOGY</b>	<b>5 Credits</b>
<b>Advanced Placement</b> <b>Grades 11 - 12</b>	
<p><i>Prerequisite: Approval of grade 10 or 11 United States History teacher</i></p> <p>The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. This course will prepare students to take the Advanced Placement Psychology test in May.</p> <p><b>Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.</b></p> <p>Text: Pearson: <a href="#">Psychology</a></p>	

<b>2100 CIVIC ACTION SEMINAR</b>	<b>2.5 Credits/Semester Course</b>
<b>Advanced College Prep</b> <b>Grades 11 - 12</b>	
<p>American history is full of examples of individual people and groups taking action to solve local and national challenges or to confront injustice. This course is designed to introduce students to the history of social change and civic action in the United States and to encourage them to see themselves as problem solvers and community activists. Students will explore issues and topics that matter to them, their families, and our shared communities. In groups or as a class, students will identify a focus issue for a student-led civics project and will spend time communicating with key stakeholders in the community while researching and developing an action plan aimed at developing long-term, sustainable solutions. These projects will culminate in student-led action, reflection, and a final public showcase of their work.</p>	

<b>FACING HISTORY AND OURSELVES</b>	<b>2.5 Credits/Semester Course</b>
<b>2440 / Advanced College Prep</b>	

**2446 / College Prep**  
**Grades 11 - 12**

Facing History is an elective course that uses the study of the Holocaust and other examples of genocide to engage students in an examination of racism, prejudice and anti-Semitism. Students will be able to continue the study and discussion of the Holocaust and other cases of 20<sup>th</sup> century genocide begun in World History. Course readings, discussions and films will help the students to make the essential connections between history and the choices they confront in their own lives. Students will analyze the role of the individual and the state as they uncover the political factors that allow and encourage genocide. They will examine examples of group and individual resistance and consider case studies of programs and policies designed to bring about reconciliation where genocide has occurred. Topics include the Armenian genocide, the Holocaust, the "Killing Fields" in Cambodia, Apartheid in South Africa, ethnic cleansing in the Balkans and the recent Rwandan genocide.

Text: Facing History and Ourselves: The Holocaust and Human Behavior

<b>CONTEMPORARY ISSUES</b>	<b>2.5 Credits/Semester Course</b>
<b>2430 Advanced College Prep</b> <b>2433 / College Prep</b> <b>Grades 11 - 12</b>	
This course will allow students to investigate current issues and hot topics of the day. Students will have an opportunity to shape the course by helping to select the topics for study. Techniques include small group investigation, class discussion and debate, and field research. This course will help students refine their critical thinking, writing, speaking, and presentation skills.	

<b>INTRODUCTION TO INTERNATIONAL RELATIONS</b>	<b>2.5 Credits/Semester Course</b>
<b>2450 Advanced College Prep</b> <b>2452 / College Prep</b> <b>Grades 10 - 12</b>	
This course will provide students with an overview of the development and implementation of American foreign policy since the end of the Cold War as well as a comprehensive understanding of the structure and role of the United Nations in addressing global problems. Specifically, students will examine the historical, economic, cultural and political motivations behind events unfolding in parts of the Middle East, North Africa, South Asia and the Far East. Students will grapple with the complexities of the world's challenges through U.N. simulations, debates and resolution writing.	
Text: <u>State of the World Atlas</u> (Penguin Books)	

<b>2705 ADVANCED HISTORY RESEARCH</b>	<b>2.5 Credits/Semester Course</b>
<b>Advanced College Prep</b> <b>Grade 11-12</b>	
<i>Prerequisite: Program Supervisor approval</i>	

This course is designed for the serious history student who is looking to undertake independently designed and self directed research. Students will be expected to develop a research proposal and to present it for review and approval. The student will work closely with the school library media specialist to navigate advanced databases and research sites. Students will be expected to produce high quality products as a result of their research time. These may include documentaries, papers for publication and for submission to contests, National History Day projects, curated exhibits in the History Learning Lab, case studies, genealogical explorations, local history articles.

<b>MONEY 101-- INTRODUCTION TO MONEY, BUSINESS AND ECONOMICS</b>	<b>2.5 Credits/ Semester Course</b>
<b>2388 / Advanced College Prep</b> <b>2389 / College Prep</b> <b>Grade 9-11</b>	
<p>This hands-on, introductory economics course will focus on the big ideas in personal finance, business, and the economy. How do people make money and why should they save it? How are corporations structured and how do they make a profit? How do supply and demand work? Students will begin to build economic and financial literacy and learn to think like economists. Students who take this course will be well prepared to take additional economics courses.</p>	

<b>ECONOMICS 1 -- MICROECONOMICS</b>	<b>2.5 Credits/Semester Course</b>
<b>2390 / Advanced College Prep</b> <b>2391 / College Prep</b> <b>Grade 11-12</b>	
<p>Microeconomics is an introductory course in the fundamental theories of capitalism. With an understanding of the principles that guide our economy, students will be better able to analyze economic problems and develop solutions to those problems. Some of the major course concepts include business organizations, market structures, trade-offs and opportunity costs, supply, demand, and prices. Students who take Microeconomics in the fall will be well-prepared to take Entrepreneurship.</p> <p>Text: Glencoe. <u><a href="#">Economics: Principles and Practices.</a></u></p>	

<b>ECONOMICS 2 -- MACROECONOMICS</b>	<b>2.5 Credits/Semester Course</b>
<b>2392 / Advanced College Prep</b> <b>2393 / College Prep</b> <b>Grade 11-12</b>	
<p>Macroeconomics is an introductory course in the fundamental theories of capitalism with a focus on trends across the economic spectrum. With an understanding of the principles that guide our economy, a student will be better able to analyze economic problems and develop solutions. Some of the major course concepts include banking, money, monetary policy, taxation, fiscal policy, economic growth, and business cycles. Students who take Macroeconomics in the fall will be well prepared to take Investment Opportunities.</p> <p>Text: Glencoe. <u><a href="#">Economics: Principles and Practices.</a></u></p>	

<b>ENTREPRENEURSHIP</b>	<b>2.5 Credits/Semester Course</b>
<b>2395 / Advanced College Prep</b> <b>2396 / College Prep</b> <b>Grade 11-12</b>	
<i>Prerequisite: Economics I -- Microeconomics.</i>	
<p>In this class, students will engage in a project-based application of the principles learned in Microeconomics. Students will explore topics related to starting, financing, operating, growing, and selling a business. The course will utilize multiple case studies to model successful entrepreneurial techniques and strategies. Students will research and construct a comprehensive business plan, which they will pitch to a panel of investors at the conclusion of the course.</p>	

<b>INVESTMENT OPPORTUNITIES</b>	<b>2.5 Credits/Semester Course</b>
<b>2398 / Advanced College Prep</b> <b>2399 / College Prep</b> <b>Grade 11-12</b>	
<i>Prerequisite: Economics II -- Macroeconomics</i>	
<p>In this course, students will apply the ideas in Economics II--Macroeconomics by exploring topics related to investing money in real estate, stocks, bonds, and private equity markets. The course will utilize multiple projects and case studies to model successful investment techniques and strategies. Students will research and participate in investment challenges and simulations throughout the semester.</p>	

<b>6454 BUSINESS AND PERSONAL LAW</b>	<b>2.5 Credits/Semester Course</b>
<b>College Prep</b> <b>Grade 10-12</b>	
<i>Prerequisite: Successful completion of Introduction to Business</i>	
<p>This course aims to develop a student’s understanding of the basic legal principles common in everyday activities. The course deals with the legal foundation of our government, business, and social systems. It stresses both an individual’s legal rights and benefits as well as their legal duties, obligations, responsibilities and liabilities. It includes a study of both criminal and civil law. Guest speakers may include: law enforcement officials, probation officers, landlords, lawyers, and judges.</p>	
Text: Glencoe: <u><a href="#">Business and Personal Law.</a></u>	

<b>2400 AP ADVANCED PLACEMENT ECONOMICS</b>	<b>5 Credits</b>
<b>Advanced Placement</b> <b>Grade 12</b>	

*Prerequisite: approval of economics teacher or program supervisor*

This college-level course focuses on both on the general concepts and analytical models of economics and the ways in which those concepts can be used to help individuals, groups, or nations decide how to improve their welfare. This course is structured around the AP curriculum guidelines for microeconomics and macroeconomics. The first semester will focus on microeconomic theory including the nature and function of product markets, supply and demand, factor markets and efficiency, and equity and the role of government. The second semester will focus on macroeconomics including basic economic concepts, measurement of economic performance, national income and price determination, economic growth and international finance and exchange rates. Students will be prepared to take the microeconomics and/or macroeconomics AP test at the end of this course.

**Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.**

Text: Cengage: Krugman’s Economics for AP

## MATHEMATICS

### Graduation Requirement - 20 credits

#### Philosophy

The Mathematics Department aims to provide students with a solid foundation consistent with the principles and practices outlined in the Massachusetts Curriculum Framework for Mathematics. Through collaborative and independent learning, students will develop and use analytic thinking, critical reasoning skills, and technology to solve problems. Students will be prepared to address complex and challenging real-world problems and succeed in postsecondary education, careers, and everyday life.

#### Math Course Sequences

The following chart shows typical progressions between courses for each grade. Most courses have prerequisite grades - see the course descriptions for details.

grade 8	grade 9	grade 10	grade 11	grade 12
Algebra I Honors	<b>4101</b> Geometry (HON)	<b>4201</b> Algebra II (HON)	<b>4301</b> Precalculus (HON)  <b>4311AP</b> AP Statistics (AP) (with precalculus Only)	<b>4401AP</b> AP Calculus AB (AP) <b>or</b>  <b>4401</b> Calculus (HON) <b>or</b>  <b>4400</b> Calculus (ACP) <b>or</b>  <b>4311AP</b> AP Statistics (AP) (alone or with Calculus)
Grade 8 Math	<b>4102</b> Geometry (ACP)	<b>4202</b> Algebra II (ACP)	<b>4302</b> Functions/Statistics/ Trigonometry (ACP)	<b>4422</b> Senior Precalculus (ACP) <b>or</b>  <b>4311AP</b> AP Statistics (AP) (alone or with Precalculus)



	<b>4103</b> Geometry (CP)	<b>4203</b> Algebra II (CP)	<b>4303</b> Functions/Statistics (CP)	<b>4443/4423</b> Integrated Math (CP)/ Trigonometry I (CP) (each one semester) <b>or</b> <b>4504</b> Financial Algebra (CP)
Transitions Math	<b>4108</b> Algebra 1 (CP)	<b>4103</b> Geometry (CP)s	<b>4203</b> Algebra II (CP)	<b>4303</b> Functions/Statistics (CP) <b>or</b> <b>4443/4423</b> Integrated Math (CP)/ Trigonometry I (CP) (each one semester) <b>or</b> <b>4504</b> Financial Algebra (CP)
	<b>4106</b> Concepts in Algebra I (CP)	<b>4209</b> Concepts in Geometry (CP)	<b>4200</b> Concepts in Algebra II (CP)	<b>4443/4423</b> Integrated Math (CP)/ Trigonometry I (CP) (each one semester) <b>or</b> <b>4504</b> Financial Algebra (CP)

### Graphing calculator recommendation

As graphing calculators are key everyday tools for learning mathematics, SHS strongly recommends that students at any level of Algebra II, Pre-Calculus, Statistics, Trigonometry or Calculus purchase a Texas Instruments graphing calculator from the TI-83 or TI-84 Plus family. These calculators will be used in class, on homework, on assessments such as PSATs, SATs, SAT I, SAT II, ACTs, APs, and in future math and science courses throughout high school, college, graduate school, and beyond.

The TI-83 and TI-84 Plus family of graphing calculators are the most widely used in schools. Also, having students with similar calculators enables our teachers to uniformly instruct students in using this technology. While graphing calculators are available for use in class, students are strongly encouraged to have their own. A new TI-84 Plus may be purchased at local retailers, and many online retailers may offer less expensive options. For example, used TI-83 Plus calculators can often be found online for under \$50.

For families who may not be in a position to purchase a graphing calculator, our school has a limited number of calculators available for loan. A calculator loan request form may be obtained from the Guidance Department or your student’s math teacher. Upon return of the completed form, SHS will provide a calculator to be borrowed for the school year.

The Stoneham Math Department is looking forward to an engaging and exciting year of mathematics. If you have any questions about which calculator to purchase or this recommendation, please see any math teacher or email the Math Program Supervisor, Michelle Zavez, at [mzavez@stonehamschools.org](mailto:mzavez@stonehamschools.org).

<b>4108 ALGEBRA I</b>	<b>5 Credits</b>
<b>College Prep Grades 9</b>	
<i>Prerequisites: Successful completion of a pre-algebra course plus the recommendation of the previous mathematics teacher or the Program Supervisor</i>	
This is a fairly rigorous entry-level course into the high school math program. This course is intended for the student who needs a better foundation in algebra and plans to attend college. The fundamentals of a first course in algebra are covered, including solving and graphing equations and inequalities and working with	

polynomials. Completion of this course will provide a foundation for further study in mathematics and for passing the MCAS test. **It is recommended that the students have their own scientific calculator for this course.**

Text: Charles, Randall et al. Pearson. [Algebra I: Common Core](#).

### 4106 CONCEPTS IN ALGEBRA I

5 Credits

**College Prep  
Grade 9**

*Prerequisites: Recommendation of the previous mathematics teacher or the Program Supervisor.*

This course sequence is designed to assist students who have struggled in mathematics courses in the past and may need a course presented at a more individualized pace with more hands-on activities and one-on-one interaction with the teacher. This course will focus on the Algebra needed for success in future courses, along with MCAS testing in grade 10. Real-world applications and thinking skills will be emphasized. **It is recommended that students have their own scientific calculator for this course.**

Text: Charles, Randall et al. Pearson. [Algebra I: Common Core](#).

### 4101 HONORS GEOMETRY

5 Credits

**Honors  
Grade 9**

*Prerequisites: Minimum grade of B- in Algebra I Honors in Grade 8 plus recommendation of the previous mathematics teacher or the Program Supervisor.*

This course is offered for those students who continue to show high aptitude, interest, and achievement in mathematics. There will be deeper treatment and extension of the topics and concepts of geometry, such as methods of proof, working with parallel and perpendicular lines and polygons, understanding congruence and similarity, coordinate geometry, and circles. Measurement skills are taught along with finding the perimeter, circumference, various types of area, and volume of figures. Real-world problems are included throughout the course, along with practice in using algebra, data analysis, and probability. These are integrated into this course in anticipation of the MCAS. **It is recommended that students have their own scientific calculator for this course.**

Text: Jurgensen, Ray et al. Houghton Mifflin Co. [Geometry](#).

### 4102 GEOMETRY

5 Credits

**Advanced College Prep  
Grades 9-10**

*Prerequisites: Minimum grade of C+ in Algebra I plus teacher recommendation*

Students will develop reasoning and problem-solving skills as they study topics such as congruence and similarity, methods of proof, applying properties of lines, triangles, quadrilaterals, circles and solids. Problem-solving skills will also be enhanced by using length, perimeter, area, circumference and volume to solve real-world problems. Algebra, data analysis, and probability are integrated into this course in anticipation of the MCAS. **It is recommended that students have their own scientific calculator for this course.**

Text: Larson, Ron et al., McDougal. Geometry: Common Core.

**4103 GEOMETRY**

**5 Credits**

**College Prep  
Grades 9-10**

*Prerequisite: Successful completion of Algebra I*

This course is the second in the sequence of courses for those students who have successfully completed Algebra I, which students will be expected to understand and apply. Along with traditional topics and concepts presented in this course, some emphasis will be placed on reasoning and proof transformations, visualization and 3-dimensional ideas, coordinate geometry and applications. Learning collaboratively will continue to be an important aspect of this program. It is recommended that students have their own scientific calculator for this course.

Text: Larson, Ron et al., McDougal. Geometry: Concepts and Skills.

**4209 CONCEPTS IN GEOMETRY**

**5 Credits**

**College Prep  
Grade 10**

*Prerequisites: Recommendation of the previous mathematics teacher or the Program Supervisor.*

This course sequence is designed to assist students who have struggled in mathematics courses in the past and may need a course presented at a more individualized pace with more hands-on activities and one-on-one interaction with the teacher. This course will focus on the Geometric skills needed for success in future courses and the MCAS. Real-world applications and thinking skills will be emphasized. **It is recommended that students have their own scientific calculator for this course.**

Text: Larson, Ron et al., McDougal. Geometry: Concepts and Skills.

**4201 HONORS ALGEBRA II**

**5 Credits**

**Honors  
Grade 10**

*Prerequisites: A minimum Grade of B- in Geometry (HON ) AND Algebra I plus the recommendation of the previous mathematics teacher or the Program Supervisor*

This course continues the offerings for those students with high interest, aptitude, and achievement in mathematics. There will be deeper treatment and extension of the topics and concepts of Algebra I. These include complex numbers and polynomials, exponential and logarithmic functions. Conic sections will also be studied. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84 calculator.**

Text: Kanold, Timothy et al. Houghton Mifflin Harcourt. [Algebra 2](#).

**4202 ALGEBRA II**

**5 Credits**

**Advanced College Prep  
Grades 10-11**

*Prerequisites: Minimum grade of B- in Geometry and Algebra I ACP plus teacher recommendation*

This course is the third in the mathematics sequence beginning with Algebra I. The program emphasizes facility with algebraic expressions and equations, including linear and quadratic types, powers and roots, and logarithmic, polynomial, and other functions. All concepts are examined as tools for modeling real - world situations. The program also applies geometric ideas learned in the previous years, such as using formulas. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84 calculator.**

Text: Charles, Randall, et al. Pearson. [Algebra 2: Common Core](#).

**4203 ALGEBRA II**

**5 Credits**

**College Prep  
Grades 10-11**

*Prerequisites: Successful completion of a high school Algebra I and Geometry course*

This course is the third in the mathematics sequence beginning with Algebra I. The program emphasizes facility with algebraic expressions and equations, including linear and quadratic types, powers and roots, and logarithmic, polynomial, and other functions. All concepts are examined as tools for modeling real-world situations. The program also applies geometric ideas learned in the previous years, such as using formulas. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84 calculator.**

Text: Haenisch, Siegfried. [Algebra 2](#).

**4200 CONCEPTS IN ALGEBRA II**

**5 Credits**

**College Prep  
Grades 11 - 12**

*Prerequisites: Recommendation of the previous mathematics teacher or the Program Supervisor.*

This course is the third in the mathematics sequence beginning with Concepts in Algebra I and is designed to assist students who may need a course presented at a more individualized pace with more hands-on activities and one-on-one interaction with the teacher. The program emphasizes facility with algebraic expressions and equations, including linear and quadratic types, powers and roots, and logarithmic, polynomial, and other functions. All concepts are examined as tools for modeling real-world situations. The program also applies

algebra and geometric ideas learned in the previous years. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84 calculator.**

Text: Haenisch, Siegfried. Algebra 2.

<b>4301 HONORS PRECALCULUS</b>	<b>5 Credits</b>
<b>Honors Grade 11</b>	
<i>Prerequisites: A minimum Grade of B- in Algebra II Honors and the recommendation of the previous mathematics teacher or the Program Supervisor</i>	
<p>This is the fourth course for those who began the study of algebra in the eighth grade. It emphasizes mathematical analysis through the study of polynomial, logarithmic, and trigonometric functions. Areas of study include advanced and modern algebra and trigonometry. This course is a prerequisite for AP/HON Calculus. Students electing this course are expected to elect Calculus in Grade 12. Summer work is recommended for students taking this course. <b>It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84.</b></p>	
Text: Sullivan, Michael. Pearson. <u>Precalculus</u> .	

<b>4302 FUNCTIONS/STATISTICS/TRIGONOMETRY</b>	<b>5 Credits</b>
<b>Advanced College Prep Grades 11-12</b>	
<i>Prerequisite: Minimum Grade of B- in Algebra II Intensive (Advanced College Prep) and teacher recommendation</i>	
<p>This is the fourth high school course for students who began Algebra I in Grade 8. Students will display, describe, transform and interpret numerical information represented as data, graphs or equations. Students will use real functions, trigonometric functions, exponential and logarithmic functions to model and analyze real-world situations. It will encompass theory and analysis in the area of circular and trigonometric functions, identities, inverse functions and complex numbers. Basic statistics will be introduced. This course will also encourage the use of graphing calculators and technology for problem solving. <b>It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84 calculator.</b></p>	
Texts: Blitzer, R. Pearson. Algebra and Trigonometry (5th edition) and Larson, R. Pearson, <u>Elementary Statistics: Picturing the World</u> (6th edition).	

<b>4303 FUNCTIONS/STATISTICS</b>	<b>5 Credits</b>
<b>College Prep Grades 11-12</b>	
<i>Prerequisite: Completion of Algebra II and teacher recommendation</i>	
<p>This is the fourth high school course for students who began Algebra I in Grade 8 and would benefit from a slightly slower pace than that used at the ACP level. Students will display, describe, transform, and interpret numerical information represented as data, graphs, or equations. Students will use real functions, exponential</p>	

and logarithmic functions to model and analyze real-world situations. Basic statistics will be introduced. This course will also encourage the use of graphing calculators and technology for problem solving. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84 calculator.**

Texts: Blitzer, R. Pearson. Algebra and Trigonometry (5th edition) and Larson, R. Pearson, Elementary Statistics: Picturing the World (6th edition).

**4401 AP ADVANCED PLACEMENT CALCULUS AB**

**5 Credits**

**Advanced Placement  
Grade 12**

*Prerequisites: Minimum grade of B- in Pre-Calculus Honors and the recommendation of the previous mathematics teacher or the Program Supervisor*

This is a rigorous college-level course for outstanding students who will specialize in mathematics and/or related fields in college. This course will use graphing calculators for problem solving. It is a requisite for, but not a guarantee of, advanced placement in mathematics at the college level. To receive high school advanced placement credit for this course a student must take the AP exam in Calculus. Summer work is required of students taking this course. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84.**

**Student Fee Required:** Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.

Text: Finney, Ross et al. Addison Wesley. Calculus Graphical, Numerical, Algebraic.

**4401 HONORS CALCULUS**

**5 Credits**

**Honors  
Grade 12**

*Prerequisites: Minimum grade of B- in Pre-Calculus Honors and the recommendation of the previous mathematics teacher or the Program Supervisor*

This is a rigorous college-level course for students who will specialize in mathematics and/or related fields in college. Topics include a review of functions, introduction to limits and continuity, derivatives, antiderivatives, and the Fundamental Theorem of Calculus. Real-world applications and modeling will be emphasized. Students will use graphing calculators for problem solving. It is an introduction to college-level Calculus. It is recommended that students have their own graphing calculator for this course. **The Mathematics Department suggests the TI-84.**

Text: Finney, Ross et al. Addison Wesley. Calculus Graphical, Numerical, Algebraic.

**4400 CALCULUS**

**5 Credits**

**Advanced College prep  
Grade 12**

*Prerequisites: Completion of Pre-Calculus Honors and the recommendation of the previous mathematics teacher or the Program Supervisor*

This is a rigorous college-level course for students who may specialize in mathematics and/or related fields in college who seek exposure to college level calculus. Topics include a review of functions, introduction to limits and continuity, derivatives, antiderivatives, and the Fundamental Theorem of Calculus. Real-world applications and modeling will be emphasized. Students will use graphing calculators for problem solving. It is an introduction to college-level Calculus. It is recommended that students have their own graphing calculator for this course. **The Mathematics Department suggests the TI-84.**

Text: Finney, Ross et al. Addison Wesley. Calculus Graphical, Numerical, Algebraic.

<b>4311 AP ADVANCED PLACEMENT STATISTICS</b>	<b>5 Credits</b>
--	------------------

**Advanced Placement  
Grades 11- 12**

*Prerequisite: Recommendation of the previous mathematics teacher or the Program Supervisor*

The goal of this course is to prepare students for success in the A.P. Statistics exam. An additional goal is for students to see the applicability and power in statistical analysis as they develop the critical thinking skills provided by this course, leading them to become better-informed citizens and consumers. Topics of study include ways to display and summarize data, standard deviation, linear regression, randomness, probability, sampling, testing hypotheses, confidence intervals, and inferences. Summer work is required of students taking this course. It is recommended that students have their own graphing calculator for this course. **The Mathematics Department suggests the TI-84 calculator.**

**Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.**

Text: Bock, Velleman, and DeVeaux. Stats: Modeling the World AP edition (5<sup>th</sup> edition).

<b>4300 SENIOR PRECALCULUS</b>	<b>5 Credits</b>
--------------------------------	------------------

**Advanced College Prep  
Grade 12**

*Prerequisite: Minimum Grade of B- in Functions/Statistics/Trigonometry and recommendation of the teacher*

This is the final math course in the ACP program. This course is intended to prepare students for calculus in college. Technology will be used, emphasizing content for the computer age. Topics to be covered are analysis of functions, limits, analytic geometry, trigonometry, sequences, mathematical induction and graph theory. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84.**

Text: Larson, Ron. Brooks/Cole Cengage Learning. Precalculus with Limits.

<b>4443 INTEGRATED MATHEMATICS</b>	<b>2.5 Credits/Semester Course</b>
------------------------------------	------------------------------------

**College Prep**

**Grade 12**

This semester course is for students who need to review areas previously studied in order to prepare for college and College Board examinations. Topics will include number sense, algebra, geometry, measurement, probability, and statistics. This semester course is intended to be followed by a semester of Trigonometry I 4423.

Text: Princeton Review. [Cracking the New SAT](#). and Warner, Steve. [New SAT Math Problems](#)

**4423 TRIGONOMETRY I****2.5 Credits/Semester Course****College Prep  
Grades 12**

This semester course will be offered at the comprehensive level to students who would like to study trigonometry in Grade 12. Students will study theory and analysis in the area of circular and trigonometric functions, identities, right and oblique triangles, inverse functions, and complex numbers. This course is offered second semester. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84 calculator.**

Text: Coxford, Arthur. Houghton Mifflin Co. [Trigonometry](#).

**4110 FINANCIAL ALGEBRA****5 Credits****College Prep  
Grade 12**

This course is for students who wish to study the practical application of real-world mathematics. Topics will include: the stock market, personal finances, loans, banking, business mathematics, employment and income taxes, understanding credit, the cost of living independently, and saving for retirement.

Text: Gerver, Robert and Sgroi, Richard, South-Western: Cengage Learning. [Financial Algebra](#).

## PHYSICAL EDUCATION

### Graduation requirement - 10 Credits

#### Philosophy

The Physical Education program is an integral part of the total educational experience at Stoneham High School. The curriculum is designed around the concept of fitness education. Healthy bodies are essential to healthy minds; in order to be ready to learn, students must have proper health, nutrition, and exercise. The learning experiences are seasoned to fulfill the growth, development, and behavior needs of each student, and to teach students what physical fitness is and how they can maintain physical fitness throughout their adult lives. Physical Education



classes are designed to meet the needs of all students. The advantages and courses available shall provide equal opportunity for all.

<b>0025 GRADE NINE PHYSICAL EDUCATION</b>	<b>2.5 Credits</b>
<p>This program builds the foundation of the high school curriculum. Students begin their journey by exploring the question, “What is fitness?” Activities implemented will help students to begin a lifetime journey of fitness through the learning of functional movements. All grade nine students will learn the basic skill of “Heart Saver” (CPR), First Aid and AED functions. All ninth graders will have the option to be Adult CPR certified.</p>	
<b>0045 GRADE TEN AND ELEVEN PHYSICAL EDUCATION</b> <i>Prerequisite: A passing grade in grade nine physical education</i>	<b>2.5 Credits</b>
<p>This course will build on the fundamentals acquired in PE Grade 9. Students will spend the next two Years exploring the question, “How do I achieve and maintain fitness?” A wide variety of activities will be implemented to help students find their path to fitness. Activities will consist of different types of weight training programs and how they each benefit and effect the body, Team sports, net games, as well as recreational games.</p>	
<b>0055 GRADE TWELVE PHYSICAL EDUCATION</b> <i>Prerequisite: Five credits in grade 10/11 physical education</i>	<b>2.5 Credits</b>
<p>As a student plans for his/her years beyond high school, it is important to blend personal fitness with good decision- making. Students will explore the question, “How does being fit help me contribute to my world?” Students will acquire the skills to navigate a lifetime of fitness through “lifetime activities”. Students will be able to create fitness programs for themselves or others. All grade twelve students will learn the basic skill of “Heart Saver” (CPR), First Aid and AED functions. All twelfth grade students will have the option to be CPR/AED certified.</p>	

## SCIENCE

**Graduation requirement - 15 credits including Biology**

### Philosophy

The Science Department offers a comprehensive program designed to prepare all students for success as scientists and life-long global citizens. Our science curriculum is designed around relevant, real-world issues to increase student motivation, intellectual engagement and sense making. As students progress in their science education at SHS, they will build a solid foundation of scientific and technological knowledge. Students will develop the ability to apply their knowledge to analyze and explain the world around them. Our science courses will help to prepare students for civic life, postsecondary education and career success. Connections are made throughout a student’s journey in their science education, starting with our ninth grade Earth and Space Science courses where students will learn about the Earth’s place in the universe, Earth’s Systems and the relationships between the Earth and human activity. Sophomore year, as students prepare for the Biology MCAS, they will continue their focus on the environment while adding the interrelationship between organisms and how they function. The standards expect students to understand the four core ideas of biology including; ecosystems, structure and function of organisms, heredity and biological evolution. Junior year, students have a choice to continue the traditional science pathway to Chemistry, (where they will apply their scientific and mathematical skills and knowledge to focus on matter and its interactions, motion and stability as well as energy), and/or branch off to explore our diverse selection of electives, including AP offerings. Senior year students can choose to continue with elective courses, or Physics. Our senior Physics course engages students with science and engineering practices of developing and using models, analyzing and interpreting data, using mathematics to solve problems and make predictions of a variety of phenomena such as motion, energy and waves.

The SHS Science curriculum is designed so that students develop an understanding of the science and engineering practices as outlined in the Massachusetts Science and Technology/Engineering Curriculum Framework. Those practices include:

- Asking questions and defining problems
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data
- Using mathematics and computational thinking
- Constructing explanations and designing solutions
- Engaging in argument from evidence
- Obtaining, evaluating and communicating information

<b>EARTH SCIENCE</b>	<b>5 Credits</b>
<p><b>5101 / Honors</b></p> <ul style="list-style-type: none"> <li>● <i>Prerequisites: Approval of Program Supervisor, eighth grade work in critical thinking and problem solving skills will be considered, minimum grade of A- in grade 8 science and enrolled in honors math</i></li> </ul> <p><b>5102 / Advanced College Prep</b></p> <ul style="list-style-type: none"> <li>● <i>Prerequisite: Minimum grade of B- in grade 8 science and enrolled in Advanced College Preparatory mathematics</i></li> </ul> <p><b>5103 / College Prep</b> <b>Grade 9</b></p> <p>This course is designed for students who need to fulfill college requirements for a lab science course. The purpose of this course is: (1) to introduce students to the specific disciplines of astronomy, meteorology, geology, and oceanography and (2) to prepare college-bound students for the "most common" course which non-science majors choose to fulfill their science requirements in college. Laboratory exercises, projects, lectures, library and research reports are an integral part of this course.</p> <p>Text: McGraw-Hill. <u>Earth Science: Geology, the Environment and the Universe.</u></p>	

<b>5411 AP ADVANCED PLACEMENT BIOLOGY</b>	<b>5 Credits</b>
<p><b>Advanced Placement</b> <b>Grade 11-12</b></p> <p><i>Prerequisite: Grade 12 students must have taken Honors Chemistry with a "B" average and have completed an Honors Biology program with a "B" average. Grade 11 students must be concurrently enrolled in Honors Chemistry and have a recommendation from their current Biology teacher. Program Supervisor approval is also required.</i></p> <p>This course is a full second year biology class with a strong laboratory component. It is equivalent to an introductory college level biology course. Complex biological processes are studied and laboratory exercises are used to enhance the understanding of the topic. AP Biology is a rigorous course requiring strong study skills. Laboratory work may extend beyond allotted class periods and after -school time may be required. All AP Biology students will take the AP exam in Biology. A college level text is used. There is one extended laboratory period during one FLEX period per cycle. A summer assignment for students is required and will need to be completed prior to the beginning of the course. This assignment will consist of a self-directed study of several chapters in the course textbook.</p>	

**Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May.**

**The cost of each AP test is determined and published by the College Board.**

Text: Campbell. Biology.

<b>BIOLOGY</b>	<b>5 Credits</b>
<b>5201 / Honors</b> <b>Grade 10</b> <ul style="list-style-type: none"><li>• <i>Prerequisite: Demonstrated problem solving and critical thinking skills in Earth Science and a minimum grade of B in Honors Earth Science or A in Advanced College Prep Earth Science.</i></li></ul>	
<b>5202 / Advanced College Prep</b> <b>Grade 10</b> <ul style="list-style-type: none"><li>• <i>Prerequisite: A minimum grade of C+ in Advanced College Preparatory Earth Science and demonstrated mastery of key concepts within formative and summative assessments.</i></li></ul>	
<p>This course is designed for students who need to fulfill college requirements for a lab science course. This course is geared to the student who wishes to obtain a comprehensive introduction to the science of biology and introduces the student to the basic properties of living organisms. Time is spent in the laboratory where practice in laboratory procedures and equipment is given, along with biological investigations. Students are required to utilize various laboratory skills. At the honors level, material will be covered at an accelerated pace requiring a serious and dedicated individual approach on the part of the student.</p> <p>Text: Holt, McDougal. <u>Biology</u>.</p>	

<b>5203 BIOLOGY</b>	<b>5 Credits</b>
<b>College Prep</b> <b>Grade 10</b> <i>Prerequisite: Minimum grade of C in Earth Science</i>	
<p>This course is designed for students who need to fulfill college requirements for a lab science course. This course is geared to the student who wishes to obtain a comprehensive introduction to the science of biology and introduces the student to the basic properties of living organisms. Time is spent in the laboratory where practice in laboratory procedures and equipment is given, along with biological investigations.</p> <p>Text: Holt McDougal. <u>Biology</u>.</p>	

<b>5308 CONCEPTS IN BIOLOGY</b>	<b>2.5 Credits/Semester Course</b>
<b>College Prep</b> <b>Grades 11 – 12</b>	
<p>This is an overview of concepts from Biology that are typically applied in MCAS testing. Students will practice solving multiple choice, short answer, and open response MCAS questions. This one -semester course is also designed to be an exploration of general topics in science. It will involve an overview of the interrelationships of biology, chemistry, and our environment. Hands -on activities and labs will be an integral part of this course.</p>	

<b>5209 ECOLOGY</b>	<b>5 Credits</b>
<b>College Prep Grade 9</b>	
<p>This course sequence is designed to assist students who have struggled in science and may need the course presented at a more individualized pace with more hands-on activities and one-to-one interaction with the teacher. During the first year, students will cover topics related to Environmental Science, incorporating concepts from the Earth Science curriculum as well as related biological concepts. Students in this course will have more time to practice and to prepare for the Grade 10 grade MCAS Biology exam.</p> <p>Text: Holt McDougal. <u>Science Fusion Modules</u>. Holt McDougal. <u>Biology</u></p>	

<b>5301 AP ADVANCED PLACEMENT CHEMISTRY</b>	<b>5 Credits</b>
<b>Advanced Placement Grades 12</b>	
<p><i>Prerequisite: A grade of A- or higher in Algebra II Honors and a grade of A- or higher in ACP Chemistry or a B- or higher in Honors Chemistry.</i></p> <p>This course is designed for students interested in careers in medicine, physical science, biological science and engineering. It is a rigorous college-preparatory program for first-year college chemistry. Topics covered include: chemical equations, energy in chemical reactions, atomic and molecular theory, the Periodic Table, states of matter, equilibria, solutions, reaction rates, acid-based chemistry, electrochemistry, organic and nuclear chemistry. Students will take the A. P. Chemistry Exam offered by the College Board.</p> <p><b>Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.</b></p>	

<b>5301 HONORS CHEMISTRY</b>	<b>5 Credits</b>
<b>Honors Grades 11 - 12</b>	
<p><i>Prerequisites: Minimum grade of A in Algebra II Advanced College Prep or a B in Honors Algebra II, approval of Biology teacher and enrolled in an honors math.</i></p> <p>This course is designed for college preparatory students who wish to obtain a good insight into the fundamentals of chemistry. Modern atomic theory receives a major emphasis. Students are also well grounded in the principles of ionization, electrolytes, acids, bases and salts, gas laws, chemical equilibrium, and redox reactions. Basic chemical mathematics and problem solving is stressed throughout. All these principles are augmented by practical applications during the one laboratory period each ten-day cycle. This course prepares students for college achievement tests in chemistry and for freshman college chemistry courses. As an Honors level course, material will be covered at an accelerated pace requiring a serious and dedicated individual approach on the part of the student. <b>A calculator with scientific notation and trigonometric functions is required.</b></p> <p>Text: Zumdahl, DeCoste. <u>World of Chemistry</u>.</p>	

<b>CHEMISTRY</b>	<b>5 Credits</b>
------------------	------------------

**5302 / Advanced College Prep**

- *Prerequisites: Minimum grade of C+ in Algebra II Advanced College Preparatory and minimum grade of C+ in Advanced College Preparatory Biology*

**5303 / College Prep**

- *Prerequisite: Minimum grade of C in Algebra II College Preparatory and minimum grade of C in College Preparatory Biology*

**Grades 11-12**

This course is designed for college preparatory students who wish to obtain a good insight into the fundamentals of chemistry. Modern atomic theory receives a major emphasis. Students are also well grounded in the principles of ionization, electrolytes, acids, bases and salts, gas laws, chemical equilibrium, and redox reactions. Basic chemical mathematics and problem solving is stressed throughout. All these principles are augmented by practical applications during the one laboratory period each ten-day cycle. This course prepares students for college achievement tests in chemistry and for freshman college chemistry courses. As an Honors level course, material will be covered at an accelerated pace requiring a serious and dedicated individual approach on the part of the student. **A calculator with scientific notation and trigonometric functions is required.**

Text: Prentice Hall. Chemistry

**5401 AP ADVANCED PLACEMENT PHYSICS 1****5 Credits****Advanced Placement  
Grade 12**

*Prerequisites: Minimum grade of B- in Honors Precalculus and an A- in Honors Chemistry. Participation in Honors Calculus or AP Calculus while completing AP Physics.*

The emphasis in AP Physic 1 is in developing formulas from physical observations and then using these formulae in problem solving. In addition, algebra and trigonometry are often used in both problem solving and deriving formulas. This course is a rigorous college preparatory program for first year college physics courses. The AP curriculum includes a total of 10 units covering topics in mechanics, electricity and waves. Students enrolled in AP Physics are required to attend an extra AP Physics laboratory period during a FLEX block in each seven day cycle.

**Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.**

Text: Prentice Hall. Physics.

**5401 HONORS PHYSICS****5 Credits****Honors  
Grade 12**

*Prerequisites: Minimum grade of B- in Honors Precalculus and A grade of B- in Honors Chemistry.*

The emphasis in Honors Physics is in developing formulas from physical observations and then using these formulae in problem solving. In addition, algebra and trigonometry are often used in both problem solving and deriving formulas. This course is a rigorous college preparatory program for first year college physics courses. The Honors curriculum includes a total of 8 units covering topics in mechanics, electricity and waves.

<b>5402 PHYSICS</b>	<b>5 Credits</b>
<b>Advanced College Prep Grade 12</b>	
<i>Prerequisite: Minimum Grade of B- in Functions, Statistics and Trigonometry Advanced College Preparatory and a Minimum grade of B- in Advanced College Preparatory Chemistry.</i>	
<p>This course is designed for college preparatory students who wish to obtain a good insight into the fundamentals of Physics. Algebra and trigonometry are widely used in describing physical phenomena quantitatively. Such topics as force, motion, energy, gravitation, work power, light, sound, and electricity are covered extensively. <b>A calculator with scientific notation and trig functions is required.</b></p>	
<p>Text: Glencoe/McGraw-Hill. <u>Physics: Principles with Application.</u></p>	

<b>PLTW INTRODUCTION TO ENGINEERING DESIGN</b>	<b>5 Credits</b>
<b>7546 / Advanced College Prep 7547 / College Prep Grades 9-12</b>	
<p>Each PLTW Engineering course engages students in interdisciplinary activities such as working with a client to design a home, programming electronic devices or robotic arms, or exploring algae as a biofuel source. These activities not only build knowledge and skills in engineering, but also empower students to develop essential skills such as problem solving, critical and creative thinking, communication, collaboration, and perseverance. In this introductory course, students delve into the engineering design process, applying math, science, and engineering standards to hands-on projects like designing a new toy or improving an existing product. <b>This course fulfills the student technology <u>or</u> science graduation requirement.</b></p>	

<b>PLTW PRINCIPLES OF ENGINEERING</b>	<b>5 Credits</b>
<b>7545 / Advanced College Prep 7544 / College Prep Grades 10-12</b>	
<i>Prerequisite: Algebra I or approval of instructor</i>	
<p>This is a high school level survey course of engineering which exposes students to some of the major concepts</p>	

that they will encounter in a post-secondary engineering course of study. Students have the opportunity to investigate engineering and high-tech careers. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

**This course fulfills the student technology or science graduation requirement.**

<b>ANATOMY AND PHYSIOLOGY</b>	<b>5 Credits</b>
<p><b>5410 / Honors:</b> Students will complete individual and collaborative assessments without any modifications. Additional article readings, research and webquests may be assigned for independent work.</p> <p><b>5412 / Advanced College Prep:</b> Students will complete individual and collaborative assessments with modifications. (Some examples of modifications for individual assessments include use of word banks/notes and partner quizzes/ tests.</p> <p><b>Grades 11-12</b></p> <p><i>Prerequisites: Minimum Grade of C- in Advanced College Preparatory Biology and a minimum grade of C- in Advanced College Preparatory Chemistry and approval of the Program Supervisor of Science.</i></p> <p>This full-year course focuses on the structure and function of the human body. After a brief review of chemistry and the human cell, most of the course time will be spent on mastering the anatomy of the body's organ systems and the details of the functions they perform. Students will have the opportunity to research and present case studies/clinical work related to human diseases and disorders. The course includes laboratories, lectures/ discussions and projects. This course is designed for students who wish to pursue a degree in the health professions like nursing, medicine, physical therapy and the biological sciences.</p> <p>Text: McGraw-Hill: <u>Hole's Anatomy and Physiology, 11th Edition.</u></p>	

<b>ASTRONOMY</b>	<b>2.5 Credits/Semester Course</b>
<p><b>5322 / Advanced College Prep</b>  <b>5323 / College Prep</b>  <b>Grades 11-12</b></p> <p>This course will explore the history of astronomy from ancient times to the present with emphasis on: constellations; earth motions; the solar system; and the extent of the universe, known and unknown. The main objective will be to help students familiarize themselves with Earth's place in the universe and explore theoretical beliefs of the Universe: the formation, black holes, wormholes, dark matter and time travel.</p>	

<b>METEOROLOGY</b>	<b>2.5 Credits/Semester Course</b>
<p><b>5514 / Advanced College Prep</b>  <b>5515 / College Prep</b>  <b>Grades 10-12</b></p> <p>This course will study topics in meteorology. The physics and chemistry of meteorology will be studied. Students will learn to interpret daily weather charts, make forecasts, and will understand the relationship of physics and</p>	

chemistry to the total weather pattern. The role of oceans in weather will also be studied. Computers will be used to obtain the latest weather information and interpret the data.

Text: Chaston Scientific. Weather Basics.

**OCEANOGRAPHY**

**2.5 Credits/Semester Course**

**5524 / Advanced College Prep**  
**5522 / College Prep**  
**Grades 11-12**

This semester course is a general overview of marine biology designed for students who want to learn more about ocean life. Unit topics include early ocean exploration, marine environments as well as a survey of marine life: algae, plants, invertebrates, fish, reptiles, birds, and mammals. Hands-on activities, labs and technology-based lessons are an integral part of this course.

Text: Amsco. Marine Science.

**FORENSIC SCIENCE**

**2.5 Credits/Semester Course**

**5421 / Honors**  
**5422 / Advanced College Prep**  
**5423 / College Prep**  
**Grades 11 - 12**

*Prerequisite: instructor approval and a minimum grade of C- in Biology.*

In this course students will acquire the knowledge of basic scientific concepts and technologies related to solving crime in society. These specific principles will then be applied and authenticated through discussion and realistic scenarios and engaging in concrete learning activities such as laboratory experiments, internet research assignments and the completion of case study examples.

**PLTW PRINCIPLES OF BIOMEDICAL SCIENCE**

**5 Credits**

**5314 / Advanced College Preparatory**  
**5312 / College Preparatory**  
**Grades 9 - 12**

*Prerequisite: Biology, may also be taken concurrently*

In the introductory course of the Project Lead the Way Biomedical Science program, students explore concepts of biology and medicine to determine the factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes as they perform experiments to solve problems. **This course fulfills one year of the student science requirement.**

**PLTW HUMAN BODY SYSTEMS**

**5 Credits**

**5334 / Advanced College Prep**



**5335 / College Prep  
Grades 10 - 12**

*Prerequisite: Successful completion of Principles of Biomedical Science or successful completion of Biology, or permission of the instructor.*

In the yearlong course, students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis in the body. Exploring science in action, students build organs and tissues on a skeletal “Maniken”; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on roles of biomedical professionals to solve real-world medical cases. **This course fulfills the student science graduation requirement.**

**PLTW MEDICAL INTERVENTIONS**

**5 Credits**

**5336 / Advanced College Preparatory  
5337 / College Preparatory**

- *Prerequisite: Successful completion of Principles of Biomedical Science, Human Body Systems, or successful completion of Biology, or permission of the instructor*

**Grades 11 - 12**

This yearlong Advanced College Preparatory/College Preparatory course is for students in grades 11 and 12. Students follow the life of a fictitious family as they investigate how to prevent, diagnose and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. **This course fulfills one year of the student science requirement.**

**DIGITAL CARTOGRAPHY**

**2.5 Credits/Semester Course**

**5611 / Honors  
5612 / Advanced College Prep  
Grades 10-12**

*Prerequisites: Ability to work independently and a grade of at least a C- in Computer Applications I or the equivalent.*

For at least 7000 years, maps have been telling complex stories of people, places, and things. Maps have helped people to safely navigate to unfamiliar places, document geopolitical boundaries, plan military strategies, find treasures, and much more. Cartography is the art and science of making maps. This course introduces the concepts and techniques that are used in cartography, such as vector graphics, raster graphics, coordinate systems, projections, topography, symbology, visual contrast, and feature hierarchy and teaches students to effectively interpret and construct multifaceted maps. Students will learn the basic functions of popular cartography software (e.g. ArcGIS, Quantum GIS, Google Earth, Adobe Illustrator, etc.) and then use these skills to create maps of various themes, some of which will be student selected. Students will also learn to use a compass, GPS, basic survey techniques, and a drone to collect field data that will be used to create a map. Creating custom internet maps using basic JavaScript and HTML coding may also be introduced. Students that are interested in computer graphics, graphic arts, geography, or computer science are encouraged to enroll in this course. **This course fulfills the student technology or science graduation requirement.**

**INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS**

**2.5 Credits/**

	<b>Semester Course</b>
<b>5623 / Honors</b> <b>5622 / Advanced College Prep</b> <b>Grades 10-12</b>	
<i>Prerequisites: Ability to work independently and a grade of at least a C- in Computer Applications I or the equivalent.</i>	
<p>This course builds on the concepts and techniques introduced in Digital Cartography. A geographic information system, or GIS, is a computer that collects, stores, analyzes, manages, and displays information that is linked to a specific location on a map. A GIS is capable of high-powered analyses that can be used to quickly find and visualize patterns in nature and to answer complex questions. In this course, students will review the basic functions of popular GIS software (e.g. ArcGIS, Quantum GIS, Google Earth, etc.) and then conduct several case studies that use real data and situations that are encountered in professional fields that often utilize GIS technology. These fields include law enforcement, military, planetary exploration, environmental science, geology, meteorology, archaeology, epidemiology, urban planning, civil engineering, navigation, transportation, politics, insurance, marketing, and real estate. Additional topics will include the “art” of cartography and the development of computer databases. This course is mainly intended for students that are interested in computers, digital graphics, geography, and/or science. <b>This course fulfills the student technology <u>or</u> science graduation requirement.</b></p>	

<b>PLANETARY EXPLORATION THROUGH REMOTE SENSING</b>	<b>2.5 Credits</b> <b>Semester Course</b>
<b>5631 / Honors</b> <b>5632 / Advanced College Prep</b> <b>Grades 10-12</b>	
<p>Is there another Earth somewhere in the universe? There are over 150 moons and planets in our solar system and over 3000 exoplanets known to exist outside of our solar system. Remote sensing technology is used to detect the chemical, physical, and possible biological properties of these planets, moons, and other celestial bodies that are enormous distances from Earth. This course focuses on the designs, missions, and findings of planetary probes, satellites, and telescopes. Course topics include the nature and characteristics of light, the history of solar system exploration, rockets, the technology of remote sensing, atmospheric and geologic features of extraterrestrial worlds, human survival beyond Earth’s atmosphere, and possible characteristics of alien life. Coursework will include the construction and launch of model rockets and using a drone to collect aerial photos of the high school campus. Students that are self-starters and are passionate about space exploration are encouraged to take this course.</p>	

<b>GEOSCIENCE</b>	<b>2.5 Credits/Semester Course</b>
<b>5642 / Advanced College Prep</b> <b>5643 / College Prep</b> <b>Grades 10-12</b>	
<p>This course introduces students to Earth Science and mainly focuses on Geology. Geology is the study of Earth’s structure and history, along with the processes that have shaped the planet. Topics may include minerals, gemstones, rocks, natural resources, water, weathering and erosion, earthquakes, the interior of Earth, volcanoes, mountain building, plate tectonics, and geologic time. A secondary goal of the course is to familiarize students with the geographic locations of Earth’s amazing geological landscapes. Virtual reality and augmented</p>	

reality tools will be used to immerse students into the features and processes found at these locations. Basic chemistry, some physics concepts, and related mathematics are also introduced to better prepare students for progressing to yearlong Chemistry and Physics courses, but students who have already taken Chemistry are still encouraged to enroll.

<b>GENETICS</b>	<b>2.5 Credits</b>
<p><b>5329 / Advanced College Prep</b></p> <ul style="list-style-type: none"> <li>● <i>Prerequisite: Biology</i></li> </ul> <p><b>5326 / College Prep</b></p> <ul style="list-style-type: none"> <li>● <i>Prerequisite: Biology</i></li> </ul> <p><b>Semester Course</b></p> <p><b>GRADES 11-12</b></p>	
<p>Since the mystery of the DNA double helix was unraveled in 1953, scientists have been learning how DNA works to provide a blueprint of an organism. The advent of DNA biotechnology has charted the course for how genetics can be used in medicine, agriculture, forensics and in one’s life. This semester course will offer an in-depth study of genetics which will include the following topics: inheritance, genetic disorders, epigenetics, DNA technology and current applications in society.</p> <p>For the CP level, summative assessments may be scaffolded with things like; word banks, short-answer vocabulary prompts, decreased multiple choice choices, data tables with data analysis started. Many projects and case studies are given in the course and students are given options to choose the topic that meets both their interest and level of difficulty.</p>	

## TECHNOLOGY

### Philosophy

At Stoneham High School we believe that all students, regardless of their future goals, will need a working knowledge of technology application and use in the world around them. Through the courses offered in our Technology Department, students have an opportunity to discover the vast career opportunities in the technology field, advance their knowledge of general productivity tools and how these tools may be used for collaboration, creativity, communication and problem solving.

For those students who are interested in a deeper understanding of how coding is used in the world around them, our Cybersecurity and Computer Science Essentials will provide them with hands on development opportunities.

Other hands on opportunities are available through Film Editing and through Student Tech Leaders program for those students who want to explore help desk and support roles.

<b>6535 COMPUTER APPLICATIONS</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 9-12</b>	
<p>Computer application skills are critical for success in the 21st Century. All careers will utilize computers and technology applications to enhance efficiency and communication. This is a project-based, hands-on course focusing on the advanced use of computing tools such as spreadsheets, databases, desktop publishing and graphics. Students will integrate these applications in real-world problem solving projects and assignments. Programming languages such as Scratch, Alice and Java will be introduced. Students will learn to use digital tools to communicate information, use logic to understand and solve problems and navigate digital information, social media and the web in a safe and ethical manner. <b>This course fulfills the student technology graduation requirement.</b></p>	

<b>7522 PLTW CYBERSECURITY</b>	<b>5 Credits</b>
<b>College Prep Grades 10 – 12</b>	
<i>Prerequisite: Computer Applications or approval of instructor</i>	
<p>This course introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students’ knowledge of and commitment to ethical computing behavior. It also aims to develop students’ skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely. <b>This course fulfills the student technology graduation requirement.</b></p>	

<b>7526 PLTW COMPUTER SCIENCE ESSENTIALS</b>	<b>5 Credits</b>
<b>College Preparatory Grades 9-12</b>	
<p>This yearlong course provides an excellent entry point for students to begin or continue the PLTW Computer Science K-12 experience. Computer Science Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. The course engages students in computational thinking practices and collaboration strategies, as well as industry standard tools authentic to how computer science professionals work. Students learn about professional opportunities in computer science and how computing can be an integral part of all careers today.</p> <p><b>This course fulfills the student technology graduation requirement.</b></p>	

<b>7563 VIDEO GAME AND WEB PAGE DESIGN</b>	<b>2.5 Credits/Semester Course</b>
<b>College Prep</b>	

**Grades 9-12**

*Prerequisite: Computer Applications or approval of instructor*

Using a variety of tools, students will learn the fundamentals of video game development and web page design. Students will develop coding experience as they program animations, interactive art, and games. Students will use Computer Science programming concepts and design processes to code simple shapes, progressing to more sophisticated sprite-based games. Students will learn how to create and share content on web pages, how to structure and style pages using HTML and CSS and will create a personal website that they can publish to the Internet.

This project-based course will combine whole group instruction with the opportunity for independent and self-paced learning. This course is designed for students who wish to exercise their creativity while learning the basics of HTML and video game design. **This course fulfills the student technology graduation requirement.**

**1585 INTRODUCTION TO DIGITAL FILM EDITING**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9-12**

This course serves as an introduction to the basics of film editing. Students will use various programs to create short multimedia pieces. Students will learn the basics of importing and editing film images, audio and video to create short documentaries, public service announcements, and original films. Prospective students should have an interest in screenwriting, theatre arts, journalism, and cinematography. Students work in teams on all projects.

**This course fulfills the student technology graduation requirement.**

**1593 ADVANCED DIGITAL FILM EDITING**

**2.5 Credits/Semester Course**

**College Prep  
Grades 9-12**

*Prerequisite: Digital Film Editing and instructor approval*

This course is designed for students who wish to continue their work in film editing. All student work will be completed on the Avid Xpress DV digital editing system. Xpress requires a basic understanding of computers, but offers unlimited opportunities for budding editors who commit themselves to it. Prospective students should have an interest in screenwriting, theatre arts, journalism, and cinematography. Students work in teams on all projects. In addition to further study of the Avid editing software, topics will include fundamentals of studio and camera lighting, audio editing and mixing, and cinematography. All projects will incorporate self and peer critiques.

**This course fulfills the student technology graduation requirement.**

**7602 STUDENT TECH LEADERS I**

**2.5 Credits/Semester Course**

**Unleveled  
Grades 9-11**

Student Tech Leader I is a yearlong course for technology-minded students to learn a variety of technology and communication skills through hands-on practice. Students will be required to assess various hardware and

software problems and decide the best approach to solving and documenting the problem. In addition to problem solving, Tech Leaders will be using writing, speaking and communication skills successfully in teaching courses, writing blogs and/or documentation and creating videos that will help support the mission of the Stoneham High School Library, Media and Technology Department. Student Tech Leaders will be expected to complete a project that will benefit the community and display their expertise. In addition, student Tech Leaders will manage the library computer equipment and provide preventative maintenance (cleaning of mice, keyboard, and screens) to the Library computers. In addition, students will learn the operation of a Help Desk and will learn soft skills (communication, listening and interpersonal) to be able to succeed in the workplace. **This course fulfills the student technology graduation requirement.**

<b>7603 STUDENT TECH LEADERS II</b>	<b>2.5 Credits/Semester Course</b>
<b>Unleveled Grades 10-12</b>	
<i>Prerequisite: Satisfactory completion of Student Tech Leader I and approval from Tech Leader Instructor</i>	
<p>Student Tech Leaders II is a semester-long course for technology-minded students to experience real world help desk day-to-day processes and procedures. Students will be assigned one period during the day to be available to support the school Help Desk. Students will work with administrators, teachers and other students to support the use of technology throughout the building. Students in Grades 10, 11 or 12 will continue to support SHS technology by continuing in the Student Tech Leader II course. Tech Leader II students will act as mentors for the Tech Leader I students, further applying independently the skills and knowledge learned in Student Tech Leader I during a period convenient for the student. Students will work side-by-side with the SHS Library Media and Technology Department to respond to requests for technology support from SHS users. In addition, students will explore the pursuit of online certifications in technology training (Google Level 1 and Level 2 certification, Microsoft Certification). Students will continue to perfect their soft skills of training and presentation as well as their knowledge of how a Help Desk operates. <b>This course fulfills the student technology graduation requirement.</b></p>	

## WORLD LANGUAGE

### Philosophy

The World Language Department at Stoneham High School provides a wide range of course offerings in French, Italian and Spanish. The focus of the program is to provide experiences that build motivation and enthusiasm for world language study. Classes are dynamic, rigorous and engaging, and foster the development of critical thinking and cross cultural awareness. Embedded in our curriculum is our core 21st Century Learning Expectations: Students think critically and communicate clearly and effectively.

***Prerequisite for all languages: Students should maintain a B- average and acquire teacher approval to continue at the current level.***

<b>FRENCH I</b>	<b>5 Credits</b>
-----------------	------------------

**3112 / Advanced College Prep**  
**3113 / College Prep**  
**Grades 9-12**

*This course is intended for students who either did not study French in middle school/high school, or earned a grade of C+ or lower in Middle School French.*

During the first year, students will perform simple communicative tasks such as greeting and responding to greetings, asking and answering simple questions, expressing likes and dislikes, and exchanging simple, concrete information. Students will explore the French Language through topics such as school, food, family, film and travel. Listening, speaking, writing and reading and francophone culture will be emphasized.

Text: EMC Paradigm. T'es Branche 1

**FRENCH II**

**5 Credits**

**3121 / Honors**  
**3122 / Advanced College Prep**  
**3123 / College Prep**  
**Grades 9 - 12**

*Prerequisite: French I or students who have completed the French sequence at the middle school with a grade of B- or higher.*

Students use sentences, strings of sentences, and combinations of learned words, phrases, and expressions. They begin to create new combinations of the language they have learned in French I. Students will ask and respond to questions to clarify information, exchange opinions about people and activities, and discuss class readings. Students will read short stories, narratives, advertisements and brochures. Students will also write simple paragraphs, notes, letters, and email as well as give presentations on cultural topics.

Text: EMC Paradigm. T'es Branche 2

**FRENCH III**

**5 Credits**

**3131 / Honors**  
**3132 / Advanced College Prep**  
**3133 / College Prep**  
**Grades 10-12**

In French III, students are able to produce and comprehend fluid sentence -length and paragraph-length messages. Students will be able to suggest possible solutions to a problem, discuss personal feelings and ideas to persuade someone to consider an alternate viewpoint, and share personal reactions to authentic literary texts. This course will engage students as they explore the different cultures of French-speaking countries. Students will read articles, plays, and stories and understand theme, characters, and setting. Students will be able to comprehend narration in present, past and future tenses in reading, audio and videotext.

Text: EMC Paradigm. T'es Branche 3 .

<b>FRENCH IV</b>	<b>5 credits</b>
<b>3141 / Honors</b> <b>3142 / Advanced College Prep</b> <b>3143 / College Prep</b> <b>Grades 11-12</b>	
<p>At this level, students convey messages of paragraph length in speaking and essay length in writing. Students will be able to initiate, sustain, and close a conversation, negotiate a compromise, discuss national, international, or current events, exchange and substantiate opinions, and analyze literary text. This course will engage students as they explore the different cultures of French-speaking countries. Students will write analytical essays, prepare oral and videotaped reports on a personal interest, and narrate in all tenses.</p>	
<p>Texts: Glencoe. Reprise; Prentice Hall. <u>L'Art de Lire</u> ; <u>Le Petit Prince</u>; and <u>Les Aventures du Petit Nicolas</u>.</p>	

<b>3152 FRENCH V</b>	<b>5 Credits</b>
<b>Advanced College Placement</b> <b>Grades 11-12</b>	
<p>Students at this level are able to speak the language with sufficient accuracy to participate effectively in most informal conversations. The course will emphasize the use of the French language to improve oral communication and help students to develop the ability to speak and understand the language in a variety of contexts. The course will engage students to explore the different cultures of the French speaking countries. Students will learn to use the three modes of communication: interpersonal, interpretive and presentational. They will be required to read articles and excerpts from French magazines, newspapers and literary texts. They will have to explore several websites focusing on the culture of the francophone countries. Students will refine verbal and written language skills; they will be able to apply language competencies beyond the school setting.</p>	
<p>Texts: Amsco. <u>Reprise</u>; <i>Fois and Glencoe</i>. <u>Tresor du Temps</u>. Pearson/Prentice Hall. <u>Une Fois Pour Toute</u>.</p>	

<b>3151 AP ADVANCED FRENCH LANGUAGE</b>	<b>5 Credits</b>
<b>Advanced Placement</b> <b>Grades 11-12</b>	
<p>This fifth year French language course enables students to develop advanced proficiency in the language skills of listening, speaking, writing and reading. The course will emphasize the use of the French language to improve oral communication and help students to develop the ability to speak and understand the language in a variety of contexts. The course will engage students to explore the different cultures of French-speaking countries. Students will learn to use the three modes of communication: interpersonal, interpretive and presentational. They will be required to read articles and excerpts from French magazines, newspapers and literary texts. They will explore several websites focusing on the culture of the francophone countries. Students will refine verbal and written language skills; they will be able to apply language competencies beyond the school setting. Students will prepare to take the Advanced Placement test in May.</p>	
<p><b>Student Fee Required: Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.</b></p>	



Text: Ladd, Richard. Pearson. Preparing for the AP Exam Language and Culture. Glencoe. Tresors du Temps

**3312 ITALIAN I**

**5 Credits**

**Advanced College Prep  
Grades 9-12**

*This course is intended for students who either did not study Italian in middle school/high school or earned a C + or lower grade in Middle School Italian.*

During the first year, students will perform simple communicative tasks such as greeting and responding to greetings, asking and answering simple questions, expressing likes and dislikes, and exchanging simple, concrete information. Students will explore language through topics such as school, family, food and travel. Listening, speaking, writing and reading in the present tense, and Italian culture will be emphasized.

Texts: Thomson/Heinle. Ciao!

**3313 ITALIAN IA**

**5 Credits**

**College Prep  
Grades 9-11**

Italian 1A and 1B at the College Preparatory level is a program designed for students who need extra time and a slower pace when acquiring a second language. ***This program takes two years to complete Italian 1 College Preparatory.*** At the end of two years (Italian 1A and Italian 1B), students will have earned the equivalent of one full year of high school Italian in terms of college requirements. In Italian 1A, students will perform simple communicative tasks using single words in naming articles or listing favorite foods. Students will also use common expressions to tell time, the date, or the weather. Students will learn to form complete sentences. Listening, speaking, writing and reading, and Italian culture will be emphasized.

Text: Amsco. Avanti con L'Italiano .

**3315 ITALIAN IB**

**5 Credits**

**College Prep  
Grade 10-12**

***Prerequisite: Italian 1A***

Italian 1B covers the second half of the text used in Italian 1A. Students enrolled in this course ***MUST*** have successfully completed Italian 1A. Successful completion of Italian 1A and IB will earn the equivalent of one full year of high school Italian in terms of college requirements. In Italian 1B, students grow in their performance of simple communicative tasks: ask and answer questions, make and respond to requests, exchange factual information, express needs. They will continue to enhance their listening, reading, writing and speaking skills.

Text: Amsco. Avanti con L'Italiano.

**ITALIAN II**

**5 Credits**

**3321 / Honors**  
**3322 / Advanced College Prep**  
**3323 / College Prep**  
**Grades 9-12**

*Prerequisite: Italian 1, Italian 1A and 1B or students who have completed the Italian sequence at the middle school with a grade of "B-" or higher.*

In this class, students use sentences, strings of sentences, and combinations of learned words, phrases, and expressions. They begin to create new combinations of the language they have learned in Italian 1. Students will ask and respond to questions to clarify information, exchange opinions about people and activities, and discuss class readings. Students will read short stories, narratives, advertisements and brochures. Students will communicate using the past, present and future tenses and will write simple paragraphs, notes, letters, and emails as well as give presentations on cultural topics.

Text: Thomson/Heinle. [Ciao!](#)

**ITALIAN III**

**5 Credits**

**3331 / Honors**  
**3332 / Advanced College Prep**  
**3333 / College Prep**  
**Grades 10-12**

In Italian 3, students are able to produce and comprehend fluid sentence-length and paragraph-length messages. Students will be able to suggest possible solutions to a problem, discuss personal feelings and ideas to persuade someone to consider an alternate viewpoint, and share personal reactions to authentic literary texts. Students will read articles, plays, stories and understand theme, character and setting. Students will be able to comprehend narration in present, past and future tenses in reading, audio, and videotext.

Text: Thomson/ Learning. [DaCapo.](#)

**ITALIAN IV**

**5 Credits**

**3341 / Honors**  
**3342 / Advanced College Prep**  
**3343 / College Prep**  
**Grades 11-12**

At this level, students study the history of Italy from the Roman Empire to modern day politics, to focus on grammatical concepts both new and old. At this level students will be reading historical information, short stories, and novels, interpreting artwork, and watching Italian films to initiate verbal and written discussion. Students will be able to convey messages of paragraph length in speaking and essay length in writing. Students will be able to initiate, sustain and close a conversation, negotiate a compromise, discuss national, international, or current events, exchange and substantiate opinions, and analyze literary texts. Students will write analytical essays, prepare oral and visual reports on Italy's history, and narrate in all tenses.

<b>3352 ITALIAN V</b>	<b>5 Credits</b>
<b>Advanced College Prep Grades 11-12</b>	
At this level, students convey messages of paragraph length in speaking and essay length in writing. Students will be able to initiate, sustain, and close a conversation, negotiate a compromise, discuss national, international, or current events, exchange and substantiate opinions, and analyze literary texts. Students can write most types of correspondence and statements of position.	
Text: Houghton-Mifflin: <u>Ponti</u> .	

<b>3351 AP ADVANCED PLACEMENT ITALIAN LANGUAGE</b>	<b>5 Credits</b>
<b>Grades 11-12</b>	
Students at this level are able to speak the language with sufficient accuracy to participate effectively in most informational conversations. They can support opinions and hypotheses and will be able to discuss in-depth highly abstract topics. They can write most types of correspondence and statements of position. They will read a novel from which they will gain a deeper understanding of Italian Language and Culture. Students will prepare to take the Advanced Placement test in May. Students will be given listening and/or reading assignments to complete over the summer.	
<b><i>Student Fee Required:</i> Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.</b>	
Text: Houghton-Mifflin: <u>Ponti</u> .	

<b>3212 SPANISH I</b>	<b>5 Credits</b>
<b>Advanced College Prep Grades 9-12</b>	
<b><i>This course is intended for students who either did not study Spanish in middle school/high school, or earned a grade of C+ or lower in Middle School Spanish.</i></b>	
During the first year, students will perform simple communicative tasks such as greeting and responding to greetings, asking and answering simple questions, expressing likes and dislikes, and exchanging simple, concrete information. Listening, speaking, writing and reading, and Spanish culture will be emphasized.	
Text: Holt McDougal. <u>Avancemos</u> .	

<b>3213 SPANISH IA</b>	<b>5 Credits</b>
------------------------	------------------

**College Prep  
Grades 9-11**

Spanish 1A and 1B at the College Preparatory level is a program designed for students who need extra time and a slower pace when acquiring a second language. ***This program takes two years to complete Spanish I College Preparatory.*** At the end of two years (Spanish 1A and Spanish 1B), students will have earned the equivalent of one full year of high school Spanish in terms of college requirements. In Spanish 1A, students will perform simple communicative tasks using single words in naming articles or listing favorite foods. Students will also use common expressions to tell time, the date, or the weather. Listening, speaking, writing, reading, and Spanish culture will be emphasized. This course covers chapters 1 -4 of the text.

Text: Holt McDougal. Avancemos IA.

**3215 SPANISH IB**

**5 Credits**

**College Prep  
Grade 10-12**

***Prerequisite: Spanish IA***

Spanish 1B, covers the second half of the text used in Spanish 1A. Students enrolled in this course ***MUST*** have successfully completed Spanish IA. Successful completion of Spanish IA and Spanish IB will earn the equivalent of one full year of high school Spanish in terms of college requirements. In Spanish IB, students will grow in their performance of simple communicative tasks: ask and answer questions, make and respond to requests, exchange factual information, and express needs. They will continue to enhance their listening, reading, writing and speaking skills.

Text: Prentice Hall. Avancemos IB.

**SPANISH II**

**5 Credits**

**3221 / Honors  
3222 / Advanced College Prep  
Grades 9-12  
3223 / College Prep  
Grades 10 - 12**

***Prerequisite: Spanish 1, Spanish 1A and 1B or students who have completed the Spanish sequence at the middle school with a grade of "B-" or higher.***

In this class, students use sentences, strings of sentences, and combinations of learned words, phrases, and expressions. They begin to create new combinations of the language they have learned in Spanish 1. Students will ask and respond to questions to clarify information, exchange opinions about people and activities, and discuss class readings. Students will read short stories, narratives, advertisements and brochures. Students will

be asked to listen to a variety of authentic material and demonstrate their understanding. Students will also write simple paragraphs, notes, letters and email as well as give presentations on cultural topics.

Text: Holt McDougal. [Avancemos](#).

<b>SPANISH III</b>	<b>5 Credits</b>
--------------------	------------------

**3231 / Honors**

**3232 / Advanced College Prep**

**3233 / College Prep**

**Grades 10-12**

In Spanish III, students are able to produce and comprehend fluid sentence -length and paragraph-length messages. Students will be able to suggest possible solutions to a problem, discuss personal feelings and ideas to persuade someone to consider an alternate viewpoint, and share personal reactions to authentic literary texts and films. Students will read articles, plays, stories, watch films, and understand theme, characters, and setting. Students will be able to comprehend narration in present, past, and future tenses in reading, audio and videotext.

In addition, students will utilize technology and imitate correct pronunciation.

Text: Holt McDougal. [Avancemos](#).

<b>SPANISH IV</b>	<b>5 Credits</b>
-------------------	------------------

**3241 / Honors**

**3242 / Advanced College Prep**

**3243 / College Prep**

**Grades 11-12**

Conducted primarily in Spanish, students in Spanish IV sharpen previously-learned skills with more complex communication in the Spanish language. Students review solidly previously-learned concepts, increase their cultural understanding of the Spanish-speaking world and learn more advanced grammatical structures and vocabulary. Students read and discuss various literary selections in the target language. Students' writing and listening skills will receive close attention through classroom exchanges.

Text: Holt McDougal. [Avancemos](#)

<b>3252 SPANISH V</b>	<b>5 Credits</b>
-----------------------	------------------

**Advanced College Prep**

**Grades 11-12**

At this level, students convey messages of paragraph length in speaking and essay length in writing. Students will be able to initiate, sustain, and close a conversation, negotiate a compromise, discuss national, international, or current events, exchange and substantiate opinions, and analyze literary text. Students will write analytical essays, prepare oral and videotaped reports on a cultural interest, and narrate in all tenses. Students will understand and make connections with other cultures by watching and analyzing movies in the target language.

Text: Thomson Learning, [Perspectivas](#)

**3251 AP ADVANCED PLACEMENT SPANISH LANGUAGE****5 Credits****Grades 11-12**

Students at this level are able to speak the language with sufficient accuracy to participate effectively in most informal conversations and formal presentations. They can support opinions and hypotheses and will be able to discuss in-depth highly abstract topics. They can write most types of correspondence and statements of position. They will read short stories and plays and discuss themes involved. They will make connections between the target cultures and their own culture. Students will prepare to take the Advanced Placement test in May. Students will be given preparatory assignments to do over the summer.

***Student Fee Required:* Students taking this AP course are expected to take the Advanced Placement test in May. The cost of each AP test is determined and published by the College Board.**

**Texts:** Prentice Hall. Abriendo Paso Lectura; Prentice Hall. Abriendo Paso Gramatica; Longman. Preparing for the AP Language Exam, and Pearson. Una Vez Mas

## STUDENT SUPPORT DEPARTMENTS

### English Language Learners (ELL)

#### Philosophy

The English Language Learner (ELL) Program is designed to meet the linguistic, academic and social needs of English Language Learners who attend Stoneham High School. ELs are students who are learning English as a second or additional language and who are not yet proficient in English at their grade level. The ELL Program creates a welcoming and challenging learning community where students acquire proficiency in both conversational and academic English. Students are enrolled in rigorous ESL courses taught by certified ESL teachers, and learn English in the areas of listening, speaking, reading, and writing. Students are also enrolled in academic courses taught by educators with sheltered English immersion (SEI) endorsement, with methods of teaching that are responsive to the learning needs of students developing English language proficiency. Students are assessed annually using the WIDA-ACCESS test of English language proficiency. This assessment tool is used in many states nationwide which are members of the WIDA consortium.

<b>9992 ESL I</b>	<b>5 Credits</b>
Open to ELL students at WIDA-ACCESS levels 1 & 2	
ESL I offers instruction in listening, speaking, reading and writing in English. Students study both conversational and academic English. This course includes explicit instruction in vocabulary, grammar, reading comprehension, and writing. Students read, write and discuss a variety of fiction and non-fiction texts. Writing progresses from the single word level through phrases and simple sentences to some paragraphs. Students create basic oral and visual presentations. Technology is integrated to include audio, video and graphic representations of vocabulary and concepts.	

<b>9993 ESL II</b>	<b>5 Credits</b>
Open to ELL students at WIDA-ACCESS levels 3 & 4	
ESL II offers intermediate instruction in listening, speaking, reading and writing in English. Students study both conversational and academic English. This course includes explicit instruction in grammar, reading comprehension, and vocabulary. Students read, write and discuss a variety of fiction and non-fiction texts. Writing progresses from simple sentences and paragraphs to more complex sentence structures and longer, more elaborate, multi-paragraph essays. Students create more detailed oral and visual presentations using a variety of media. Technology is integrated to include audio, video and graphic representations of vocabulary and concepts.	

## Special Education

Under Massachusetts Special Education law and the Federal I.D.E.A., a free and appropriate public education is guaranteed to all students eligible for special education. The services of highly qualified staff to assess individual student needs are required, and when a child is found to be eligible, an individualized educational program is developed and, upon receipt of a parent/guardian signature, is implemented. In meeting these requirements, the following programs and services are available at Stoneham High School or made available through other placements and/or other outside agencies.

The Special Education Department provides services of highly qualified Special Education teachers for students with disabilities. Educational support personnel are also available to assist students on an as needed basis. The services are provided for eligible students with disabilities and require specially designed instruction in order to access the curriculum. The Special Education Staff also provides consultation and in-class instruction.

Resource classes provide the services of highly qualified Special Education teachers to work on individualized underdeveloped skills related to a disability. This program allows special education students to complete academic requirements for high school graduation according to their own abilities as identified on their individualized educational programs within major subject areas.

The Stoneham High School Special Education Department provides STRIDE (Students Taking Responsibility in Developing Excellence) Program for students who require therapeutic support throughout or for some of their day. The STRIDE Program primarily supports students with emotional disabilities while providing curricula taught by teachers in a small-group setting.

The Stoneham High School Special Education Department provides RISE (Reaching Independence through Structured Environments) Program for students who require a highly modified academic curriculum with a focus upon daily living skills, vocational skills and job skills. Services are provided as indicated on each student's Individualized Educational Program.

The Language-Based Learning Program offers an inclusive approach to students with language-based learning disabilities. These include disabilities in the areas of reading, writing and communication. Students are taught in small groups with a general education teacher and a certified special educator. Reading services, speech/language therapy and counseling are provided on an individual basis program learners.

The Stoneham Public School System offers the following related services for special education students including: speech and language therapy, occupational therapy, physical therapy, adaptive physical education, social work, emotional behavior support, psychological support, emotional/behavioral support, social pragmatics, and applied behavior analysis services.

For further information, please call the Special Education Office (781) 279-3810 x 1341.