

**STONEHAM HIGH SCHOOL
STONEHAM, MA**

PROGRAM OF STUDIES 2019-2020

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**STONEHAM HIGH SCHOOL
STONEHAM, MASSACHUSETTS**

**PROGRAM OF STUDIES
2019-2020**

Dear Parents and Students:

This Program of Studies provides you with the information necessary to select classes for the 2019-2020 school year. Courses are arranged by department and graduation requirements precede the listing of courses.

All incoming Grade 9 students should select English, United States History I, science (Earth Science or Biology for those students who wish to enter the PLTW Biomedical Pathway), mathematics, one semester of Physical Education, one semester of technology or fine arts, and two additional full-year courses or four semester-length courses. To graduate from Stoneham High School, each student must earn 115 credits. In addition, each student must take and pass the State Assessment in ELA, mathematics and science in order to graduate.

Sophomores, juniors and seniors spend time each winter reviewing course options with their current teachers and guidance counselor. The number of course choices expand as a student progresses through high school and we encourage students, as well as a parent or guardian, to have discussion with staff about any questions they may have.

Students are responsible for keeping track of credits and graduation requirements with the support of a guidance counselor. All students must be enrolled in seven classes each quarter.

In 2018, Stoneham High School adopted a community service requirement. During the 2019-2020 school year, all freshmen and sophomores are expected to track and complete ten (10) hours of community service.

Best wishes with the scheduling process!

Donna M. Cargill
Principal

THE RIGHTS OF PARENTS AND STUDENTS

The leadership of the Stoneham Public Schools is committed in full measure to the recognition of the rights of all parents and students as guaranteed by law. Therefore, it is essential in presenting course offerings to review these rights.

Title II of the Americans with Disabilities Act of 1990: Prohibits discrimination, exclusion from participation, and denial of benefits on the basis of disability in areas of educational programming.

Title IX of the Americans with Disabilities Act of 1990: Prohibits discrimination, exclusion from participation, and denial of benefits in educational programs on the basis of sex (Coordinator: Administrator of Student Services).

Title VI of the Civil Rights Act of 1964: Prohibits discrimination, exclusion from participation and denial of benefits based on race, color, or national origin (Coordinator: Administrator of Student Services).

Section 504 of the Rehabilitation Act of 1973: Prohibits discrimination, exclusion from participation, and denial of benefits based on disability (Coordinator: Administrator of Student Services).

M GL, Ch. 76, Section 5 of the Massachusetts General Laws, Chapter 76, Section 5: Prohibits discrimination in all public schools on the basis of age, race, color, sex, national origin, religion, sexual orientation, gender identity or disability (High School Contact: Principal or either Vice Principal).

Section 16: "The parent, guardian or custodian of a child refused admission to or excluded from the public schools or from the advantages, privileges and courses of study of such public schools shall on application be furnished by the School Committee with a written statement of the reasons therefore, and thereafter, if the refusal to admit or exclusion was unlawful, such child may recover from the town in tort, and may examine any member of the committee or any other officer of the town, upon interrogatories." These laws make it clear that all aspects of public school education must be fully open and available regardless of race, color, sex, religion or national origin.

The School Committee of the Town of Stoneham has established policy 8-9 to demonstrate the importance of these laws.

Background: 21st Century Learning Expectations

In November of 2014, the faculty and administration of Stoneham High School began the important work of developing new academic and civic expectations for all students. This work began with a staff workshop for initial development of the statement and continued through the spring and fall of 2015 with full faculty involvement. These Expectations were adopted on December 16, 2015. In January of 2016, the faculty finalized work on rubrics for the assessment of the Student Expectations. Teachers assess the progress of students by using predetermined assessments and work samples and associated rubrics. These tools were developed within each department. Student progress in meeting the expectations has been measured and tracked since the fall of 2016.

21st Century Learning Expectations

1. Students analyze problems and present solutions to them in innovative and diverse ways. Student growth will be measured in math and science classes.
2. Students demonstrate personal responsibility and respect toward others. Student growth will be measured in physical education and health education classes.
3. Students use appropriate technology and tools to access, evaluate and effectively apply information. Student growth will be measured in social studies classes.
4. Students think critically and communicate clearly and effectively. Student growth will be measured in English and foreign language classes.
5. Students engage successfully in independent and collaborative work. Student growth will be measured in elective classes.

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.

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.

PROMOTION AND GRADUATION REQUIREMENTS

Courses that meet throughout the year earn five (5) credits. Those that meet for one semester earn two and one-half (2.5) credits. Course descriptions indicate the number of credits awarded for each course.

GRADE 8 PROMOTION GUIDELINES

Satisfactory completion of Grade 8 work (passing at least 3 academic subjects including English) is suggested for entrance to Grade 9.

Stoneham High School Promotion Requirements
2019 - 2020 School Year

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
2019-2020 School Year

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.
 - a. Pass a minimum of fifteen (15) credits in Social Studies. Pass one year-long course in Modern World History or the equivalent.
 - b. Pass two sequential year-long courses in U. S. History.

Beginning with the Class of 2022, 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 one of the following approved technology courses: Computer Applications, Introduction to Computer Science, Computer Science Essentials, Cybersecurity, Video Game and Web Page Design, A.P. Computer Science Principles, Introduction to Engineering, Student Tech Leaders I, Student Tech Leaders II, Introduction to Geographic Information Systems, and Advanced Film Editing.
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.

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

Commonwealth of Massachusetts Requirement for Graduation

Students must either earn a score of at least 240 on the grade 10 MCAS ELA and Mathematics test, **or** earn a score between 220 and 238 on these tests and fulfill the requirements of an Educational Proficiency Plan (EPP). Students must also earn a score of at least 220 on the grade 10 MCAS Science (Biology, Chemistry or Physics).

LEVEL CHANGES

Courses must be elected in a responsible manner with the definite intention to follow the program requested. Parents and students requesting a level change will be asked to meet with the program supervisor coordinating the department in which the course is offered.

Once the new school year has begun, changes may only be made in the following situations:

1. Students who meet a prerequisite by passing a summer school course may request the course they are qualified to take.
2. Any subject dropped after four weeks will be recorded as a W (withdrawal) for a final grade in that subject and will receive 0 quality points for rank in class. The earned grade will be recorded for any quarter completed. For the 2019-2020 school year, the four-week deadline is September 20, 2019.
3. Other changes will not be allowed unless there are special circumstances. The Change Committee that includes the Principal, the Vice Principal, and the appropriate Program Supervisor must approve all changes.

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, guidance 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.

Beginning in August, courses that have been called Intensive will be called Advanced College Preparatory (ACP) and courses that have been called Comprehensive will be called College Preparatory (CP).

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. For the 2019-2020 school year, Advanced Placement (AP) credit is offered in Psychology, United States History, Economics, AP English Language and Composition, AP English Literature

and Composition, Spanish Language, French Language, Italian Language, Calculus, Statistics, Computer Science, Physics, Chemistry, and Environmental Science. Each year, students take Advanced Placement examinations as concluding experiences in these courses. Program Supervisors approve placement in AP 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 PATTERNS

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.

The minimum admissions standards for freshman applicants to the Massachusetts State College and University System are:

Seventeen (17) full-year college preparatory courses including: four (4) courses in English; four (4) courses in mathematics including Algebra I, Algebra II, Geometry, Trigonometry, or comparable courses including mathematics during the final year of high school; three (3) laboratory science courses drawn from Natural Science, Physical Science and/or Technology and Engineering; two (2) courses in social studies including one (1) course in U.S. History; two (2) courses in a single language; and two (2) elective courses from the above subjects or from the Arts and Humanities or Computer Science.

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

COLLEGE ADMISSION - GENERAL PROCEDURE

Testing

PSAT	October of junior and/or sophomore year
SAT or ACT	Spring of junior year and fall of senior year
Subject Tests	Discuss with your counselor or subject-matter teacher

*Some colleges/universities are test optional. Students should speak with their counselor to better understand this option.

Financial Aid

Both the Free Application for Federal Student Aid (FAFSA) and the CSS Profile Registration Forms are available on line. One separate application is used for all Stoneham scholarships. The Stoneham application is available in the guidance office in March. Outside scholarships are posted on Naviance (links to scholarships and Naviance can be found on the SHS Guidance website).

THE MARKING SYSTEM

Marks based on a letter system are employed to indicate the achievement of the student. Plusses and minuses are used to add or detract from the foundation grade.

Foundation letter grades may be interpreted as follows:

A	Excellent, outstanding achievement
B	Good, above-average achievement
C	Fair, average achievement
D	Passing, below average achievement
P	Passing
F	Failing, no credit given
I	Incomplete
W	Withdrawal

D- is passing and carries diploma credit but is an indication that the student should not take advanced work in that subject.

A grade of **A** or **B** is recommended for college admission.

Teachers make comments on report cards as necessary.

RANK IN CLASS

Students are ranked within their graduating class according to their weighted cumulative grade point average. 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.

The following procedures are employed to determine a student's rank in class:

1. Letter Grades will be translated to quality points for computation purposes on this basis:

Final Grade of " A+ "	4.4	quality points
Final Grade of " A "	4.0	quality points
Final Grade of " A- "	3.7	quality points
Final Grade of " B+ "	3.4	quality points
Final Grade of " B "	3.0	quality points
Final Grade of " B- "	2.7	quality points
Final Grade of " C+ "	2.4	quality points
Final Grade of " C "	2.0	quality points
Final Grade of " C- "	1.7	quality points
Final Grade of " D+ "	1.4	quality points
Final Grade of " D "	1.0	quality points
Final Grade of " D- "	0.7	quality points
Final Grade of " F "	0	quality points
Final Grade of " W "	0	quality points
Final Grade of " P "	Not used for rank in class	

2. In addition to the above, college level subjects will be weighted on this basis:

A.P. 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".

All subjects in the Program of Studies will carry class rank credit.

HONOR ROLL

To attain high honors, a student must have at least five "A"s and no grade lower than a "B" in all subjects. To attain honors, a student must have at least a "B" in all subjects.

SUMMER SCHOOL

A student may go to summer school to make up any course he/she has failed during the school year, provided he/she meets 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. **When a course is taken at another school, the High School Principal must grant prior permission before credit can be granted toward graduation or promotion.**

COURSE DESCRIPTIONS

BUSINESS EDUCATION

Courses in the Business and Technical Education are designed for students who plan to attend a four -year college, a two-year college, or students who plan to enter the work force immediately upon graduation. Development of skills in communication, decision making, problem solving, human relations, and an understanding of basic business concepts are integrated throughout the curriculum.

FINANCIAL LITERACY

6102 (1st) (2nd) (COLLEGE PREP)

2.5 Credits

Grades 9 -10

In this course, students will learn the basics of money management and decision- making. Through practical exercises and case studies, students will understand what it means to become wise and knowledgeable consumers, savers, investors, users of credit, money managers, and members of a global workforce and society. Activities may include the Stock Market Game, basic banking, checking account and budgeting decisions, credit card and insurance information.

Text: Glencoe McGraw Hill: [Personal Finance](#).

INTRODUCTION TO BUSINESS

6104 (1st) (2nd) (COLLEGE PREP)

2.5 Credits

Grades 9-12

This course serves as the foundation of the business program at Stoneham High School. It provides students with an introduction to the business world. Units include basic economics and market structures, the laws of supply and demand, business management, organizational structures, marketing, advertising and borrowing. **This course is a prerequisite for many courses in the Business Education Department.**

Text: Brown and Clow. [Introduction to Business](#).

INTERNATIONAL BUSINESS

6114 (1st) 2nd) (COLLEGE PREP) *Prerequisite; Successful completion of Introduction to Business*

2.5 Credits

Grades 9-12

This course will explore business and industry from an international perspective. Students will study the globalization and the international economy, currency and banking around the world, ecommerce, international travel, business customs and cultures, and the basics of imports and exports.

Text: Glencoe McGraw Hill: [International Business](#).

TRAVEL AND TOURISM

6117 (1st)(2nd) (COLLEGE PREP)

2.5 Credits

Grades 9-12

In this semester course, students will explore the travel and tourism industry, which is growing at an unprecedented rate as well as the factors that contribute to this industry. How do politics, climate change, and financial ups-and-downs impact this industry? Travelers no longer want to sit back and tour. Travelers want to interact with those who live in the local communities. This course will explore all of these topics as well as the many careers tied to travel and tourism.

Text: TBA

SPORT AND ENTERTAINMENT MARKETING

6214 (1st) (2nd) (COLLEGE PREP) *Prerequisite: Successful completion of Introduction to Business*

2.5 Credits

Grades 9-12

This course will explore the world of sports and entertainment from a marketing perspective. Students will explore legal and ethical issues, uses of market research, the process of product development, and the role of celebrity endorsements in the amateur and professional sports and entertainment world. Students will use case studies and reflective writing in addition to substantial online research to explore the world of sport and entertainment marketing.

Text: Kaser and Oelkers: [Sports and Entertainment Marketing](#).

COLLEGE ACCOUNTING I

6232 (ADV COLLEGE PREP/COLLEGE PREP)

5 Credits

Grades 10-12

This course is designed to introduce accounting to college-bound students who have accounting or business management/administration as a career goal. The course is designed to train students to use accounting records to make sound management decisions. Students will learn to prepare and interpret financial statements, to compare statements to analyze changes, to do routine journalizing and posting as an introduction to auditing, and to adapt to accounting principles.

Text: Guerrieri, Haber, Hoyt & Turner. [Glencoe Accounting](#).

BUSINESS ORGANIZATION AND MANAGEMENT

6444 (1st) (COLLEGE PREP) *Prerequisite: Successful completion of Introduction to Business*

2.5 Credits

Grades 10 - 12

This course is designed to provide students with a practical working knowledge of corporate organizations, of business enterprises and the principles and procedures essential to the success of business enterprises. It is designed for all students who plan to work in business, be employed in management positions, expect to enroll in post-high school education and prepare for business management as a profession. The study of entrepreneurship is discussed for students who expect to be owners of a business (particularly of a small business). This course covers problems of organization, marketing, finance, distribution, advertising, credit, budgeting, taxes, stocks and

bonds, employee relations, and government regulations of business. This course works in conjunction with the Junior Achievement program.

Text: Glencoe: Business and Personal Finance.

BUSINESS AND PERSONAL LAW

6454 (2nd) (COLLEGE PREP) *Prerequisite: Successful completion of Introduction to Business*

2.5 Credits

Grade 10-12

This course aims to develop the basic legal principles common in everyday activities in which an individual is likely to become involved. It can be useful to individuals for personal reasons and can be valuable as background information to individuals who are entering business careers or planning advanced study at the college level. The course deals with the legal foundation of our government, business and social system. It stresses one's legal rights and benefits, but also one's legal duties, obligations, responsibilities and liabilities. It includes a study of crime, criminal activity, laws applicable to landlords and tenants, contracts, administration of law, public and private wrongs and employment regulations. Guest speakers include: law enforcement officials, probation officers, landlords and lawyers.

Text: Glencoe: Business and Personal Law.

MARKETING I

6614 (COLLEGE PREP) *Prerequisite: Successful completion of Introduction to Business*

5 Credits

Grades 10-12

This course explores many of the occupations associated with the marketing industry. Some areas of study include: advertising, banking, balancing and reconciling a checking account, merchandising, salesmanship and retailing. Guest speakers from various fields of retailing and business reinforce the classroom subject matter. Group projects and field trips broaden the educational experience. A course-related club (DECA), an association of marketing students, is available to students in the program.

Text: Fatese, Kimbrell, and Woloszyk. Marketing Essentials.

MARKETING II

6624 (COLLEGE PREP) *Prerequisite: Successful completion of Marketing I and teacher approval*

5 Credits

Grades 11-12

A more extensive study than Marketing I, this course covers more in-depth economics, advertising, marketing research and elements of owning a business. Students will study different corporations and how free enterprise functions. Group and individual projects are an important part of the learning experience in this course. Students may also operate the school store where they are responsible for inventory control, ordering and receiving merchandise, advertising, displays, as well as all financial aspects of running the store.

Text: Fatese, Kimbrell, and Woloszyk. Marketing Essentials.

ENGLISH

Graduation Requirement - 20 credits

ENGLISH I

1101 (HON) Prerequisite: Minimum grade of A in grade 8 English and English teacher approval

1102 (ADV COLLEGE PREP) Prerequisite: Minimum grade of B- in grade 8 English and English teacher approval

1103 (COLLEGE PREP)

5 Credits

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 *A Midsummer Night’s Dream*, *1984*, *Oedipus Rex*, *Animal Farm*, *A Long Way Gone* and *The House on Mango Street* as well as selections of Greek Myths, nonfiction, poetry and other literature from the anthology. Students write multi-paragraph literary essays in addition to a 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.

Grouping: Advanced college prep and college prep students will be grouped together but graded by level.

ENGLISH II

1201 (HON) Prerequisite: Minimum grade of A- in English I and English teacher approval

1202 (ADV COLLEGE PREP) Prerequisite: Minimum grade of B- in English I and English teacher approval

1203 (COLLEGE PREP)

5 Credits

Students in English II explore the question, “What does it mean to be human?” Texts may include *To Kill a Mockingbird*, *A Lesson Before Dying*, *Lord of the Flies*, *A Separate Peace*, *Out of the Dust*, *Macbeth*, 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 research paper. Grammar and vocabulary are stressed to prepare students to pass MCAS as well as the SAT their junior year. The writing process is emphasized.

ENGLISH III

1301 (AP) Advanced Placement Language and Composition

5 Credits

Prerequisite: Minimum grade of B in English II Honors or A- in English II Intensive and English teacher approval.

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.

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 student 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 *The Scarlet Letter*, *The Great Gatsby*, *As I Lay Dying*, 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.

1302 (ADV COLLEGE PREP) *Prerequisite: Minimum grade of B- in English II and English teacher approval.*

1303 (COLLEGE PREP)

5 Credits

Students in English III explore American literature by studying texts such as *The Crucible*, *The Scarlet Letter*, *The Great Gatsby*, *Being Henry David*, *The Catcher in the Rye*, 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.

ENGLISH IV

1401 AP Advanced Placement Literature and Composition

5 Credits

Prerequisites: To receive the AP recommendation, a student must have at least a B- in AP English III, or an A- in English III Intensive and English teacher approval. In addition to possessing notable ability in English, a student electing this course should have a genuine interest in literature and writing.

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. Major texts include *Tess of the D'Ubervilles*, *Hamlet*, *Crime and Punishment*, *Rosencrantz and Guildenstern Are Dead*, *As You Like It*, *Heart of Darkness*, *Waiting for Godot*, and *The Joy Luck Club*. Students also complete a senior symposium project to prepare them for college research.

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.

TRADITIONAL BRITISH LITERATURE

1452 (ADV COLLEGE PREP) *Prerequisite: Minimum grade of B- in English III and English teacher approval.*

1453 (COLLEGE PREP)

5 Credits

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 first semester.

SENIOR ENGLISH CHOICES

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.

WOMEN'S LITERATURE

1411 (HONORS)

1412 (ADV COLLEGE PREP) *Prerequisite: Minimum grade of B- in English III and English teacher approval.*

1413 (COLLEGE PREP)

2.5 Credits

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. Based on interest and level, class texts may include *Pride and Prejudice*, *Their Eyes Were Watching God*, *The Joy Luck Club*, *The Handmaid's Tale*, *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 knowledge of the texts, the authors and literary and social movements that produced them, and the elements of those text such as symbols, themes and points of view. SAT preparation and writing the college essay are covered first semester. To meet graduation requirements, students must successfully pass this course.

THE HERO'S QUEST

1422 (ADV COLLEGE PREP) *Prerequisite: Minimum grade of B- in English III and English teacher approval.*

1423 (COLLEGE PREP)

2.5 Credits

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 enable 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. Grammar, vocabulary, and writing are required. Based on interest and level, texts may include, *Beowulf*, *Ender's Game*, *Ready Player One*, *The Lightning Thief*, and excerpts from *The Hobbit*, and Greek myths. Some levels also require students to read an outside book. SAT preparation and writing the college essay are covered first semester. To meet graduation requirements, students must successfully pass this course.

UNDERSTANDING CULTURE THROUGH GLOBAL LITERATURE

1461 (HONORS)

1462 (ADV COLLEGE PREP) *Prerequisite: Minimum grade of B- in English III and English teacher approval.*

1463 (COLLEGE PREP)

2.5 Credits

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*, 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 first semester. Requirements for the course include maturity, openness to diversity, and a willingness to read, write and communicate honestly. To meet graduation requirements, students must successfully pass this course.

SHAKESPEARE

1472 (ADV COLLEGE PREP) *Prerequisite: Minimum grade of B- in English III and English teacher approval.*

1473 (COLLEGE PREP)

2.5 Credits

Students in this semester course will approach Shakespearean plays from each of the three genres: history, tragedy, and comedy. They will be illuminated by both stage and film performances. In the process, we will explore differences between the approaches of critics, directors and performers, and we will experience some "hands-on" work through working in groups to create our own film versions of Shakespeare's scenes. Students will read and watch *Hamlet, As You Like It*, and selections from *Julius Caesar*. Writing assignments will include summaries, contrasts and comparisons, and using textual evidence to support literary claims. Some levels also require students to read an outside book. SAT preparation and writing the college essay are covered first semester. To meet graduation requirements, students must successfully pass this course.

GENERAL ENGLISH ELECTIVES

These general electives do not fulfill the English Department graduation requirements.

CREATIVE WRITING

1514 (1st) (2nd) (UNL)

2.5 Credits

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. This general elective does not fulfill English Department graduation requirements.

FILM STUDY

1504 (1st) (2nd) (UNL)

2.5 Credits

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. This general elective does not fulfill English Department graduation requirements.

FAMILY & CONSUMER SCIENCE

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.

FOODS AND NUTRITION

8154 (1st) (2nd) (UNL)

2.5 Credits

Grades 9-12

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 foods. 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. **This course is a requirement for most culinary courses.**

Text: Largen and Bence. Guide to Good Food.

SPORTS NUTRITION

8114 (1st) (2nd) (UNL)

2.5 Credits

Grades 9-12

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. Nutrition, Food, and Fitness

INTERNATIONAL FOODS

8234 (1st) (2nd) (UNL) *Prerequisite: Successful completion of Foods and Nutrition*

2.5 Credits

Grades 9-12

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.

FUNDAMENTALS OF BAKING

8253 (2nd) (COLLEGE PREP) *Prerequisite: Successful completion of Foods and Nutrition*

2.5 Credits

Grades 10-12

This course will provide student 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 each baked good 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

8212 (1st) (ADV COLLEGE PREP) *Prerequisite: Successful completion of Foods and Nutrition*

8213 (1st) (COLLEGE PREP) *Prerequisite: Successful completion of Foods and Nutrition*

5 Credits

Grades 11-12

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 foods products for their small business: Sparty's Cafe. This class meets in a double block during 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

8222 (2nd) (ADV COLLEGE PREP) *Prerequisite: Successful completion of Foods and Nutrition*

8223(2nd) (COLLEGE PREP) *Prerequisite: Successful completion of Foods and Nutrition*

5 Credits

Grades 11-12

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.

ADULT SKILLS

8274 (1st) (2nd) (UNL)

2.5 Credits

Grades 9-12

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.

CHILD DEVELOPMENT I

8312 (1st) (2nd) (ADV COLLEGE PREP)

8313 (1st) (2nd) (COLLEGE PREP)

2.5 Credits

Grades 9-12

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 newborn 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.

Text: Brisbane. [The Developing Child.](#)

CHILD DEVELOPMENT II

8412 (1st) (2nd) (ADV COLLEGE PREP) *Prerequisite: Successful completion Child Development I*

8413 (1st) (2nd) (COLLEGE PREP) *Prerequisite: Successful completion of Child Development I*

2.5 Credits

Grades 9-12

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.

Text: Herr. [Working with Young Children.](#)

EARLY CHILDHOOD STUDIES

8432 (1st) (2nd) (ADV COLLEGE PREP) *Prerequisite: Successful completion Child Development II*

8433 (1st) (2nd) (COLLEGE PREP) *Prerequisite: Successful completion of Child Development II and the approval of the instructor*

5 Credits

Grades 11-12

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 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 first semester will be permitted to enroll for second semester. Early Childhood Studies will meet in a double block in order to facilitate working in the local elementary and preschool classrooms.

FASHION AND CONSTRUCTION

8504 (1st) (2nd) (UNL)

2.5 Credits

Grades 9-12

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. *Students will be responsible for providing their own course fabric and materials for projects.*

ADVANCED FASHION CONSTRUCTION AND DESIGN

8514 (1st) (2nd) (UNL) *Prerequisite: Successful completion of Fashion and Construction*

2.5 Credits

Grades 9-12

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. *Students will be responsible for providing their own course fabric and materials for projects. This course may be repeated with*

FINE ARTS

Graduation Requirement - Five credits in art and/or music classes are required for graduation.

STUDIO ART

9100AP (Full Year) (Advanced Placement)

9100 (Full Year) (HON)

9102 (Full Year) (ADV COLLEGE PREP)

5 Credits

Grades 11-12

Prerequisite: Introduction to Art 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 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.

SPARTAN CHORALE

9200 (Full Year) (ADV COLLEGE PREP)

5 Credits

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.

SPARTAN BAND

9300 (Full Year) (HON, ADV COLLEGE PREP, COLLEGE PREP)

Grades 9-12

5 Credits

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 band. This course may be repeated.

JAZZ ENSEMBLE

9320 (Full Year) (UNL)

5 Credits

Grades 9 - 12

Jazz Ensemble is open to musically qualified instrumentalists (students in band or with equivalent experience). The course focus is 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 emphasis on developing skills in improvisation. Jazz Ensemble members perform at school concerts or events outside of school.

THEATER ARTS

9574 (1st) (2nd) (UNL)

2.5 Credits

Grades 9 – 12

This workshop course will enable students to develop acting skills through 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.

MUSIC APPRECIATION

9334 (1st) (2nd) (UNL)

2.5 Credits

Grades 9 – 12

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.

TWENTIETH CENTURY POPULAR MUSIC

9350 (1st) (2nd) (UNL)

2.5 Credits

Grades 9 – 12

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.

INTRODUCTION TO ART

9435 (1st) (2nd) (UNL)

2.5 Credits

Grades 9-12

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.

CRAFTS DESIGN

9600 (1st) (2nd) (UNL)

2.5 Credits

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. This is a semester course that may not be repeated.

PHOTOGRAPHY

9415 (1st) (2nd) (UNL) *Prerequisite: Introduction to Art*

2.5 Credits

Grades 9-12

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. Students are expected to provide their own 35mm single lens manual camera. Automatic cameras are not acceptable. This is a semester course that may not be repeated.

ADVANCED PHOTOGRAPHY

9420 (UNL) *Prerequisite: An "A" average in Photography and permission of instructor*

2.5 Credits

Grades 10-12

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.

EXPERIMENTAL PHOTOGRAPHY

9455 (2nd) (UNL) *Prerequisite: Introduction to Art*

2.5 Credits

Grades 9 – 12

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.

MIXED MEDIA/COLLAGES

9460 (2nd) (UNL) *Prerequisite: Introduction to Art*

2.5 Credits

Grades 9 -12

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.

CERAMICS

9515 (1st) (2nd) (UNL) *Prerequisite: Introduction to Art*

2.5 Credits

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 only be repeated with the permission of the instructor.

SCULPTURE

9625 (1st) (2nd) (UNL) *Prerequisite: Introduction to Art*

2.5 Credits

Grades 9-12

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.

ADVANCED 2D ART

9445 (2nd) (UNL) *Prerequisite: An "A" in Introduction to Art*

2.5 Credits

Grades 10-12

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 Introduction to Art and the more advanced art courses, such as Studio Art.

ADVANCED 3D ART

9475 (2nd) (UNL) *Prerequisite: An "A-" or better in Ceramics or Sculpture*

2.5 Credits

Grades 10-12

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 varied and complex.

DIGITAL DESIGN

9697 (1st) (2nd) (UNL) *Prerequisite: A grade of B or higher in Introduction to Art*

2.5 Credits

Grades 11-12

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.

FOREIGN LANGUAGE

Prerequisite for all languages: Students should maintain a B- average to continue in the College Preparatory, Advanced College Preparatory, Honors and AP level.

FRENCH I

3112 (ADVANCED COLLEGE PREPARATORY)

3113 (COLLEGE PREPARATORY)

5 Credits

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 use common phrases and expressions to complete simple tasks such as saying “good morning” and stating their name, age, and where they live. Listening, speaking, writing and reading, and French culture will be emphasized.

Text: EMC Paradigm. T’es Branche 1

FRENCH II

3121 (HONORS)

3122 (ADVANCED COLLEGE PREPARATORY)

3123 (COLLEGE PREPARATORY)

5 Credits

Grades 9 - 12

This course is designed for students who have successfully completed French I at the high school at the Honors and Advanced College Preparatory level and for 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 e-mail as well as give presentations on cultural topics.

Text: EMC Paradigm. T’es Branche 2

FRENCH III

3131 (HONORS)

3132 (ADVANCED COLLEGE PREPARATORY)

3133 (COLLEGE PREPARATORY)

5 Credits

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 .

FRENCH IV

3141 (HONORS)

3142 (ADVANCED COLLEGE PREPARATORY)

3143 (COLLEGE PREPARATORY)

5 Credits

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. 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.

Texts: Glencoe. Reprise; Prentice Hall. L'Art de Lire ; Le Petit Prince; and Les Aventures du Petit Nicolas.

AP FRENCH LANGUAGE

3151 (ADVANCED PLACEMENT)

5 Credits

Grades 11-12

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.

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

FRENCH V

3152 (ADVANCED COLLEGE PREPARATORY)

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. 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.

Texts: Amsco. Reprise; Fois and Glencoe. Tresor du Temps. Pearson/Prentice Hall. Une Fois Pour Toute.

ITALIAN I

3312 (ADVANCED COLLEGE PREPARATORY)

5 Credits

Grades 9-12

This course is intended for students who either did not study Italian in middle school/high school or earned a grade of C or lower 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!

ITALIAN IA

3313 (COLLEGE PREPARATORY)

5 Credits

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 .

ITALIAN IB

3315 (COLLEGE PREPARATORY)

5 Credits

Grade 10-12

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

3321 (HONORS)

3322 (ADVANCED COLLEGE PREPARATORY)

3323 (COLLEGE PREPARATORY)

5 Credits

Grades 9-12

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 e-mail as well as give presentations on cultural topics.

Text: Thomson/Heinle. Ciao!

ITALIAN III

3331 (HONORS)

3332 (ADVANCED COLLEGE PREPARATORY)

3333 (COLLEGE PREPARATORY)

5 Credits

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

3341 (HONORS)

3342 (ADVANCED COLLEGE PREPARATORY)

3343 (COLLEGE PREPARATORY)

5 Credits

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 text. Students will write analytical essays, prepare oral and visual reports on Italy's history, and narrate in all tenses.

ITALIAN V

3352 (ADVANCED COLLEGE PREPARATORY)

5 credits

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 can write most types of correspondence and statements of position.

Text: Houghton-Mifflin: [Ponti](#).

AP ITALIAN LANGUAGE

3351 (ADVANCED PLACEMENT)

5 Credits

Grades 11-12

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.

***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: Houghton-Mifflin: [Ponti](#).

SPANISH I

3212 (ADVANCED COLLEGE PREPARATORY)

5 Credits

Grades 9-12

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.

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. Avancemos.

SPANISH IA

3213 (COLLEGE PREPARATORY)

5 Credits

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.

SPANISH IB

3215 (COLLEGE PREPARATORY)

5 Credits

Grade 10-12

In Spanish 1B, students cover the second half of the text from Spanish 1A. Students will grow in their performance of simple communicative tasks: ask and answer questions, make and respond to requests, exchange factual information, express needs. The course covers chapters 5 -8 of the text. At the end of two years (Spanish 1A and Spanish 1 B), students have earned the equivalent of one full year of high school Spanish in terms of college requirements. Therefore, it takes two years to complete Spanish 1 Comprehensive.

Text: Prentice Hall. Avancemos IB.

SPANISH II

3221 (HONORS)

3222 (ADVANCED COLLEGE PREPARATORY)

Grades 9-12

3223 (COLLEGE PREPARATORY)

Grades 10 - 12

5 Credits

This course is designed for students who have successfully completed Spanish I at the high school at the Honors and Intensive level, or students who have completed the Spanish sequence at the middle school with 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 e-mail as well as give presentations on cultural topics.

Text: Holt McDougal. Avancemos.

SPANISH III

3231 (HONORS)

3232 (ADVANCED COLLEGE PREPARATORY)

3233 (COLLEGE PREPARATORY)

5 Credits

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.

SPANISH CONVERSATION AND CULTURE

3245 (COLLEGE PREPARATORY)

5 Credits

Grades 11-12

Prerequisite: Successful completion of Spanish III Comprehensive

In this course, students will examine aspects of Spanish and Latin American Culture through film and authentic literature. Students will also review basic conversational grammar and vocabulary. Students will be able to: initiate, sustain and close a conversation; negotiate a compromise; and discuss national, international or current events. This course is designed for students who wish to continue learning Spanish beyond Spanish III Comprehensive, but are not able to take Spanish IV Intensive or Spanish IV Honors.

SPANISH IV

3241 (HONORS)

3242 (ADVANCED COLLEGE PREPARATORY)

3243 (COLLEGE PREPARATORY)

5 Credits

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

SPANISH V

3252 (ADVANCED COLLEGE PREPARATORY)

5 Credits

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

AP SPANISH LANGUAGE

3251 (ADVANCED PLACEMENT)

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

HEALTH EDUCATION

Graduation Requirement: *All students are required to pass one semester of Health Education.*

HEALTH EDUCATION

5855 (1st)(2nd) (UNL)

2.5 Credits

Grade 10

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.

CURRENT HEALTH ISSUES

5534 (1st) (2nd) (UNL) *Prerequisite: Health Education*

2.5 Credits

Grades 11 – 12

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. **This course does not fulfill the Health Education graduation requirement.**

HEALTH CAREERS

5544 (1st) (2nd) (UNL) *Prerequisite: Health Education*

2.5 Credits

Grades 10 – 12

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. **This course does not fulfill the Health Education graduation requirement.**

HEALTHY CHOICES

5845 (1st) (2nd) (UNL)

2.5 Credits

Grade 9

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 **communication**, 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.

PEER LEADERSHIP

5755 (UNL)

5 Credits

Grades 11-12

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 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.**

MATHEMATICS

Graduation Requirement: Twenty credits including Algebra I and Geometry

ALGEBRA I

4105 (Advanced College Prep) *Prerequisites: Successful completion of a pre-algebra course plus the recommendation of the previous mathematics teacher or the Program Supervisor*

5 Credits

Grade 9

This is a rigorous entry-level course into the high school mathematics program. This course is intended for the student who could use a better foundation in basic algebra, but needs less time to develop ideas and less practice on each concept. Topics include solving and graphing equations and inequalities, basic statistics, linear functions, exponential functions, systems of equations and inequalities, factoring polynomials, radical functions, and rational functions. Applications to all topics will be included. Successful completion of this course will provide a strong foundation for further study in mathematics. **It is recommended that the students have their own scientific calculator for this course.**

Text: Carter, Cuevas, Day, Malloy, Holliday, & Luchin, McGraw-Hill Education. [Algebra 1.](#)

ALGEBRA I

4108 (College Prep) *Prerequisites: Successful completion of a pre-algebra course plus the recommendation of the previous mathematics teacher or the Program Supervisor*

5 Credits

Grades 9-12

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 the 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.](#)

CONCEPTS IN ALGEBRA I

4106 (College Prep) *Prerequisites: Recommendation of the previous mathematics teacher or the Program Supervisor.*

5 Credits

Grade 9

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-to-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.

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

CONCEPTS IN GEOMETRY

4209 (College Prep) *Prerequisites: Recommendation of the previous mathematics teacher or the Program Supervisor.*

5 Credits

Grade 10

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-to-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.

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

GEOMETRY

4101 (HON) *Prerequisites: Minimum grade of "B" in Algebra I Honors in Grade 8 plus recommendation of the previous mathematics teacher or the Program Supervisor.*

5 Credits

Grade 9

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. The se 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.

GEOMETRY

4102 (Advanced College Prep) *Prerequisites: Minimum grade of "C+" in Algebra I plus teacher recommendation*

5 Credits

Grades 9-10

Students will develop reasoning and problem-solving skills as they study topics such as congruence and similarity, and apply 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.

GEOMETRY

4103 (College Prep) *Prerequisite: Successful completion of Algebra I*

5 Credits

Grades 9-10

This course is a second in the sequence of courses for those students who have successfully completed Algebra I, which students will be expected to understand and apply. Although traditional topics and concepts are 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, such as the TI30XIIS.**

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

ALGEBRA II

4201 (HON) Prerequisites: *A minimum Grade of "B" in Geometry (HON) AND Algebra I plus the recommendation of the previous mathematics teacher or the Program Supervisor*

5 Credits

Grade 10

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 polynomial, 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.

ALGEBRA II

4202 (Advanced College Prep) Prerequisites: *Minimum grade of "B-" in Geometry Intensive and Algebra I plus teacher recommendation*

5 Credits

Grades 10-11

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.

ALGEBRA II

4203 (College Prep) Prerequisites: *Successful completion of a high school Algebra I and Geometry course*

5 Credits

Grades 10-11

This course is the third in the mathematics sequence beginning with algebra. 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.

PRECALCULUS

4301 (HON) *Prerequisites: A minimum Grade of “B” in Algebra II Honors and the recommendation of the previous mathematics teacher or the Program Supervisor*

5 Credits

Grade 11

This is the fourth course for those who began the study of algebra in the eighth grade. It emphasizes mathematical analysis through study of the 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. **It is recommended that students have their own graphing calculator for this course. The Mathematics Department suggests the TI-84.**

Text: Sullivan, Michael. Pearson. Precalculus.

FUNCTIONS/STATISTICS/TRIGONOMETRY

4302 (Advanced College Prep) *Prerequisite: Minimum Grade of “B-” in Algebra II Intensive (Advanced College Prep) and teacher recommendation*

5 Credits

Grades 11-12

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. **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).

FUNCTIONS/STATISTICS

4303 (College Prep) *Prerequisite: Minimum Grade of C in Algebra II Comprehensive (College Prep) and teacher recommendation*

5 Credits

Grades 11-12

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 Intensive level. Students will display, describe, transform, and interpret numerical information represented as data, graphs, or equations. Students will use real functions, exponential 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).

A.P. CALCULUS A.B.

4401AP (AP) *Prerequisites: Minimum grade of B in Pre-Calculus Honors and the recommendation of the previous mathematics teacher or the Program Supervisor*

5 Credits

Grade 12

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.

CALCULUS

4401 (HON) *Prerequisites: Minimum grade of B in Pre-Calculus Honors and the recommendation of the previous mathematics teacher or the Program Supervisor*

5 Credits

Grade 12

This is a rigorous college-level course for outstanding students who will specialize in mathematics and/or related fields in college. 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.

ADVANCED PLACEMENT STATISTICS

4311AP (AP) *Prerequisite: Minimum grade of B in Pre-Calculus Honors and the recommendation of the previous mathematics teacher or the Program Supervisor*

5 Credits

Grades 11- 12

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 (5th edition)

ADVANCED MATHEMATICS

4422 (Advanced College Prep) Prerequisite: Minimum Grade of C in Functions/Statistics/Trigonometry

5 Credits

Grades 11-12

This is the final math course in the Intensive 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,

INTEGRATED MATHEMATICS

4443 (College Prep) (1st) (2nd)

2.5 Credits

Grade 11 Semester II

Grade 12 Semester I

This is a one-semester course 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. It is the recommendation of the mathematics department that students with a "B-" or higher in Algebra II (INT/Advanced College Prep) select from other electives to further their preparation.

Text: Princeton Review. Cracking the New SAT

Warner, Steve. New SAT Math Problems

TRIGONOMETRY I

4423 (College Prep) (1st) (2nd)

2.5 Credits

Grades 11-12

This semester course will be offered at the comprehensive level to students who would like to elect 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.

TRIGONOMETRY II

4433 (College Prep) (1st) (2nd)

2.5 Credits

Grades 11 – 12

This semester course will be offered at the comprehensive level. Students will study theory and analysis in the area of circular and trigonometric functions, identities, right and oblique triangles, inverse functions, and complex numbers. Trigonometry II is a continuation of Trigonometry I and will be offered second semester only. 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.

CONSUMER AND CAREER MATHEMATICS

4504 (College Prep)

5 Credits

Grade 12

This course is for students who wish to study real -world mathematics. Topics will include: the stock market, personal finances, 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: All students at Stoneham High School are required to take and pass four (4) semesters of regularly scheduled Physical Education classes.

Physical Education 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.

GRADE NINE PHYSICAL EDUCATION

0025 (UNL)

2.5 Credits

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.

GRADE TEN AND ELEVEN PHYSICAL EDUCATION

0045 (UNL)

Prerequisite: A passing grade in Grade 9 physical education

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 to find their path to fitness.

GRADE TWELVE PHYSICAL EDUCATION

0055 (UNL) *Prerequisite: Five credits in Grade 10/11 physical education*

2.5 Credits

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.

SCIENCE

Graduation requirement: Pass fifteen (15) credits in science including Biology

EARTH SCIENCE

5101 (HON) *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*

5102 (Advanced College Prep) *Prerequisite: Minimum grade of B- in grade 8 science and enrolled in Advanced College Preparatory mathematics*

5103 (College Prep)

5 Credits

Grade 9

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.

Text: McGraw-Hill. Earth Science: Geology, the Environment and the Universe.

BIOLOGY

5201 (HON) *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.*

5202 (Advanced College Prep) *Prerequisite: A minimum grade of C+ in Advanced College Preparatory Earth Science and demonstrated mastery of key concepts within formative and summative assessments.*

5 Credits

Grade 10

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.

Text: Holt, McDougal. Biology.

BIOLOGY

5203 (College Prep) *Prerequisite: Minimum grade of C in Earth Science.*

5 Credits

Grade 10

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.

Text: Holt McDougal. Biology.

ECOLOGY

5209 (College Prep)

5 Credits

Grade 9

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. Students in this course will have more time to practice and to prepare for the Grade 10 grade MCAS Biology exam.

Text: Holt McDougal. Science Fusion Modules.
Holt McDougal. Biology.

CONCEPTS IN BIOLOGY

5308 (1st) (College Preparatory)

2.5 Credits

Grades 11 – 12

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.

CHEMISTRY

5301AP Advanced Placement Chemistry: *Prerequisite: A grade of A- or higher in Algebra II Honors and approval of Biology teacher*

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.

***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.**

5301 (HON): *Prerequisites: Minimum grade of A in Algebra II Advanced College Preparatory or B in Honors Algebra II, approval of Biology teacher and enrolled in honors math*

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*

5 Credits

Grade 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: Honors class: Zumdahl, DeCoste. World of Chemistry.

Advanced College Preparatory and College Preparatory classes: Prentice Hall. Chemistry

A.P. PHYSICS B

5401AP (AP)

5401 (HON)

5 Credits

Grade 12

Prerequisites: Minimum grade of B in Honors Precalculus and approval of Program Supervisor. A grade of A in Honors Chemistry is recommended for AP Physics and a grade of B in Honors Chemistry is required for Honors Physics. Participation in Honors Calculus or A.P. Calculus while completing A.P. Physics.

The emphasis in Honors/AP 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 12 units covering topics in mechanics, electricity, waves, and optics. The AP curriculum includes an additional 4 units covering topics in thermal physics, fluids, electromagnetism, and nuclear physics. Students enrolled in AP Physics are required to take the AP Physics B Exam offered by the College Board.

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. Payment for the AP tests will be due to the AP coordinator at SHS in February.

Text: Prentice Hall. Physics.

PHYSICS

5402 (Advanced College Prep): *Prerequisite: Minimum Grade of B in Functions, Statistics and*

Trigonometry Advanced College Preparatory and a minimum grade of B in Advanced College Preparatory Chemistry

5 Credits

Grade 12

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, heat, light, sound, magnetism, electricity, and static electricity are covered extensively. These are augmented by a laboratory period every ten-day cycle. A calculator with scientific notation and trig functions is required.

Text: Glencoe/McGraw-Hill. Physics: Principles with Application.

AP BIOLOGY (not offered 2019-2020)

5411 (AP) 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.*

5-Credits**Grade 11-12**

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 every seven-day 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 addition to reading biology-related novel or book.

~~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.

ANATOMY AND PHYSIOLOGY

5412 (HON./Advanced College Prep) *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*

5 Credits

Grades 11-12

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.

Text: McGraw-Hill: Hole's Anatomy and Physiology, 11th Edition.

ASTRONOMY

5322 (1st) (2nd) (Advanced College Prep/College Prep)

2.5 Credits

Grades 11-12

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.

AP ENVIRONMENTAL SCIENCE

5311: Prerequisites: *A minimum grade of “B” in Honors Earth Science, Biology and Chemistry or “A” in Advanced College Preparatory Earth Science, Biology, and Chemistry or approval from current science teacher*

5 credits

Grades 11-12

Advanced Placement environmental science is an integrated science where students will study the basic ecological principles that govern the natural world and the many ways in which humans affect the environment. Topics include the following: ecosystems and how they function; finding balance among population, soil, water and agriculture; pollution; sustainability and natural resources. There will be an additional lab period during the seven-day cycle. Students will be expected to perform independent scientific investigations and will take the AP exam in May. Advanced Placement environmental science is open to all students who have completed biology and earth science. The approval of intensive or honors level earth science and biology teachers is required. Students should be enrolled in or have completed intensive or honors chemistry. A summer reading component with a written assignment for students prior to the beginning of the course is required. This will consist of several chapters in the textbook.

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. Environmental Science.

METEOROLOGY

5514 (1st) (Advanced College Prep/College Prep)

2.5 Credits

Grades 10-12

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 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

5524 (1st) (2nd) (Advanced College Prep/College Prep)

2.5 Credits

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

5422 (1st) (2nd) (HON/Advanced College Prep/College Prep) *Prerequisite: instructor approval and a minimum grade of C in Biology.*

2.5 Credits

Grade 11-12

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.

PRINCIPLES OF BIOMEDICAL SCIENCE

5313 (Advanced College Preparatory/College Preparatory) *Prerequisite: Successful completion of Biology*

5 Credits

Grades 11 - 12

In the introductory course of the Project Lead the Way Biomedical Science program, students explore concepts of biology and medicine to determine 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 while allowing them to design their own experiments to solve problems. **This course fulfills one year of the student science requirement.**

HUMAN BODY SYSTEMS

5325 (Advanced College Prep/College Prep) *Prerequisite: Successful completion of Principles of Biomedical Science or successful completion of Biology, or permission of the instructor*

5 Credits

Grades 11 - 12

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 would satisfy part of a student's technology or science graduation requirement. **This course fulfills one year of the student science requirement.**

MEDICAL INTERVENTIONS

5332 (Advanced College Preparatory)

5333 (College Preparatory) *Prerequisite: Successful completion of Principles of Biomedical Science, Human Body Systems, or successful completion of Biology, or permission of the instructor*

5 Credits

Grades 11 - 12

This yearlong Advanced College Preparatory/College Preparatory course is for students in grades 11 and 12. *Prerequisite: Successful completion of Principles of Biomedical Science, or Human Body Systems, or successful completion of Biology, or permission of the instructor.*

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

5612 (1st) (2nd) (HON/Advanced College Prep) *Prerequisites: ability to work independently and a grade of at least a "C" in Computer Applications I or the equivalent.*

2.5 Credits

Grades 10-12

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 will 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 is a prerequisite for Geographic Information Systems.

INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS

5622 (1st) (2nd) (HON/Advanced College Prep) *Prerequisites: A grade of at least "C" in Digital Cartography*

2.5 Credits

Grades 10-12

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.

PLANETARY EXPLORATION THROUGH REMOTE SENSING

5632 (1st) (2nd) (HON/Advanced College Prep) 2.5 Credits

Grades 10-12

Is there another Earth somewhere in the universe? There are over 150 moons and planets in our solar system and nearly 1000 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, the 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. A major portion of the course is dedicated to the Mars Student Imaging Project (MSIP), an authentic research opportunity that allows students to work with Arizona State University scientists in order to investigate a student-selected research project related to the planet Mars. The MSIP culminates with NASA acquiring a new image of the student-selected study area using the Odyssey THEMIS camera currently orbiting Mars. Students that are self-starters and are passionate about space exploration are encouraged to take this course.

GEOSCIENCE

5642 (1st) (2nd) (Advanced College Prep/College Prep)

2.5 Credits

Grades 10-12

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 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 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.

INTRODUCTION TO ENGINEERING DESIGN

7542 (Advanced College Preparatory)

7543(College Preparatory)

5 Credits

Grades 9-12

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.

Students may elect to take both semesters of this course, as projects will vary with the semester. This course fulfills the student technology or science graduation requirement.

GENETICS

5329 (ADVANCED COLLEGE PREP) *Prerequisite: Successful Completion of Biology*

5326 (COLLEGE PREP) *Prerequisite: Successful Completion of Biology*

2.5 CREDITS

GRADES 11-12

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.

SOCIAL STUDIES

Graduation Requirements: All students must pass one (1) year-long course in world history and two (2) sequential, year-long courses in United States History. During the 2019-20 school year, students in the class of 2023 (freshmen) will take US History I, and students in the classes of 2022 (sophomores) and 2021 (juniors) will take US History II.

UNITED STATES HISTORY I

REQUIRED FOR ALL GRADE 9 STUDENTS BEGINNING WITH THE CLASS OF 2022

2601H (HON) *Prerequisite: minimum grade of A- in Civics and recommendation of the grade 8 teacher. Summer Reading may be required at the Honors level.*

2602 (ADVANCED COLLEGE PREP) *Prerequisite: minimum grade of B- in Civics or recommendation of the grade 8 teacher.*

2603 (COLLEGE PREP)

5 Credits

Grade 9

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 20th century quest for social justice for all citizens. This course will help students build research, critical reading, and analytical writing skills.

Text: Prentice Hall: Pathways to the Present.

AP UNITED STATES HISTORY II:

1877 – Present

2311 (AP) *Prerequisite: A grade of "B-" or higher in Early U.S. History Honors or US I Honors or teacher approval*

5 Credits

Grade 10 & 11

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 20th 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.

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: McDougall Littell: The American Pageant.

UNITED STATES HISTORY II

REQUIRED FOR ALL GRADE 10 AND 11 STUDENTS BEGINNING WITH THE CLASS OF 2022

2702 (ADVANCED COLLEGE PREP) *Prerequisite: minimum grade of B- in Early US History, US History I, or teacher recommendation*

2703 (COLLEGE PREP)

5 Credits

Grades 10 and 11

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.

Text: Prentice Hall: Pathways to the Present.

ADVANCED PLACEMENT ECONOMICS

2400AP (AP) *Prerequisite: approval of economics teacher or program supervisor*

5 Credits

Grade 12

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 either the microeconomics and 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

ECONOMICS

2401 (HON) (not offered 2019-2020)

2402 (ADVANCED COLLEGE PREP)

2403 (COLLEGE PREP)

5 Credits

Grade 12

Economics is an introductory course in the fundamental theories of capitalism. With an understanding of the principles that guide our economy, a student will be better able to analyze economic problems and develop solutions to those problems. Some of the major concepts studied include: business organizations, market structures, trade-offs and opportunity costs, investment markets, supply and demand, banking, money and monetary policy, labor,

economic growth and business cycles. This course will include units of particular interest to seniors preparing to leave high school for college or work which include a discussion about college opportunity costs, practice of job or college interviewing skills and resume writing as well as an exploration of personal credit and consumer loans. Students who choose to take Economics at the comprehensive or intensive level may have the opportunity to participate in the DECA district and state conferences.

Text: Glencoe. [Economics: Principles and Practices](#).

PSYCHOLOGY

2405 (ADVANCED COLLEGE PREP)

2406 (COLLEGE PREP)

5 Credits

Grades 11 - 12

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.

ADVANCED PLACEMENT PSYCHOLOGY

2501 (AP) *Prerequisite: Approval of grade 10 or 11 United States History teacher*

5 Credits

Grades 11 - 12

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.

***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: Pearson: [Psychology](#)

CONTEMPORARY ISSUES

2430 (1st) (2nd) (ADVANCED COLLEGE PREP/COLLEGE PREP)

2.5 Credits

Grades 11 - 12

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.

FACING HISTORY AND OURSELVES

2440 (1st) (2nd) (ADVANCED COLLEGE PREP/COLLEGE PREP)

2.5 Credits

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 20th 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

INTRODUCTION TO INTERNATIONAL RELATIONS/MODEL U.N.

2450 (1st) (2nd) (ADVANCED COLLEGE PREP/COLLEGE PREP)

2.5 Credits

Grades 10 - 12

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: State of the World Atlas (Penguin Books)

ADVANCED INTERNATIONAL RELATIONS/MODEL U.N.

2470 (1st) (2nd) (ADVANCED COLLEGE PREP/COLLEGE PREP)

2.5 Credits

Grades 10 - 12

This course is for students who have already completed one semester of International Relations/Model U.N. and wish to continue their study of global politics. Students will have the opportunity to conduct in -depth research examining the historical, economic, cultural and political motivation behind events unfolding in parts of the Middle East, North Africa, South Asia and the Far East.

THE GREAT DEBATE

2512 (1st) (2nd) (ADVANCED COLLEGE PREP/COLLEGE PREP)

2.5 Credits

Grades 10 - 12

This student-designed semester course is for students who love to argue about big ideas. The Great Debate will give students the skills to participate in all debates, both formal and informal. Students will learn how to listen respectfully and effectively, to quickly synthesize information and form an argument, and to speak on the fly. The course will introduce students to a variety of public speaking strategies and debate styles including Lincoln-Douglas and Public Forum Debate. Finally, students will have the chance to study and analyze famous presidential debates in United States History and will consider the impact of debate in shaping the modern international political system.

Text: TBA

SPECIAL EDUCATION PROGRAM

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.

SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS (STEM)

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 emphasize 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). Stoneham High School will be expanding these pathways each year ultimately to provide a minimum of four courses in each pathway. Students who are successful in the PLTW courses may be eligible to earn college credit while in high school. 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,

COMPUTER APPLICATIONS

6535 (1st) (2nd) (UNL)

2.5 Credits

Grades 9-12

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

CYBERSECURITY

7533 (College Preparatory) *Prerequisite: Computer Applications 1 or approval of instructor*

5 Credits

Grades 9 – 12

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

COMPUTER SCIENCE ESSENTIALS

7525 (College Preparatory)

5 Credits

Grades 9-12

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

VIDEO GAME AND WEB PAGE DESIGN

7563 (1st) (2nd) (College Preparatory) *Prerequisite: Computer Applications or approval of instructor*

2.5 Credits

Grades 9-12

Using a variety of tools, students will learn the fundamentals of video game development and web page design. This project-based course will combine whole group instruction with and opportunity for independent and self-paced learning for those students who are interested in more sophisticated applications in the areas of design and computer games. This course is designed for students who wish to learn to make video games. **This course fulfills the student technology graduation requirement.**

INTRODUCTION TO ENGINEERING DESIGN

7542 (Advanced College Preparatory)

7543(College Preparatory)

5 Credits

Grades 9-12

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.

*Students may elect to take both semesters of this course, as projects will vary with the semester. **This course fulfills the student technology or science graduation requirement.***

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

7521 (A.P.) *Prerequisite: Approval of instructor*

5 Credits

Grades 9-12

This course introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career. **This course fulfills the student technology graduation requirement.**

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: TBA

INTRODUCTION TO DIGITAL FILM EDITING

1585 (1st) (2nd) (UNL)

2.5 Credits

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.**

ADVANCED DIGITAL FILM EDITING

1593 (1st) (2nd) (College Preparatory) *Prerequisite: Successful completion of Introduction to Digital Film Editing and instructor approval*

2.5 Credits

Grades 9-12

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.**

STUDENT TECH LEADERS I

7602 (UNL)

5 Credits

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.**

STUDENT TECH LEADERS II *Prerequisite: Satisfactory completion of Student Tech Leader I and approval from Tech Leader Instructor*

7603 (UNL)

2.5 Credits

Grades 10-12

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

APPLYING MATHEMATICS IN CHEMISTRY

4343 (College Preparatory) *Prerequisite: Successful completion of Algebra II*

5 Credits

Grades 11 - 12

This course is for junior and senior students who wish to study the mathematics they will be using in Chemistry class. Mathematical topics will follow the sequence of Comprehensive Chemistry. It is recommended that students take this course at the same time they take College Preparatory Chemistry. **This course fulfills part of the student mathematics graduation requirement.**

Text: ChemCom, W H Freeman & Co. Chemistry in the Community 6th ed.

PRINCIPLES OF BIOMEDICAL SCIENCE

5313 (Advanced College Preparatory/College Preparatory) *Prerequisite: Successful completion of Biology*

5 Credits

Grades 11 - 12

In the introductory course of the Project Lead the Way Biomedical Science program, students explore concepts of biology and medicine to determine 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 while allowing them to design their own experiments to solve problems. **This course fulfills one year of the student science requirement.**

HUMAN BODY SYSTEMS

5325 (Advanced College Preparatory/College Preparatory) *Prerequisite: Successful completion of Principles of Biomedical Science or successful completion of Biology, or permission of the instructor*

5 Credits

Grades 11 - 12

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 would satisfy part of a student's technology or science graduation requirement. **This course fulfills one year of the student science requirement.**

MEDICAL INTERVENTIONS

5332 (Advanced College Preparatory)

5333 (College Preparatory) *Prerequisite: Successful completion of Principles of Biomedical Science, Human Body Systems, or successful completion of Biology, or permission of the instructor*

5 Credits

Grades 11 - 12

This yearlong Advanced College Preparatory/College Preparatory course is for students in grades 11 and 12. *Prerequisite: Successful completion of Principles of Biomedical Science, or Human Body Systems, or successful completion of Biology, or permission of the instructor.*

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.**

DISTANCE LEARNING

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.