

CHATHAM HIGH SCHOOL



PROGRAM OF STUDIES

2018-2019

TABLE OF CONTENTS

<u>General Information</u>	2
<u>Graduation Requirements</u>	2
<u>Course Selection</u>	4
<u>Entrance and Withdrawal from Courses</u>	5
<u>Selection for Special Courses</u>	7
<u>Alternative Study Options (Option 2)</u>	7
<u>Athletic Eligibility</u>	9
<u>College Admission Requirements</u>	10
<u>Grading System</u>	10
<u>Pupil Records</u>	11
<u>Affirmative Action</u>	12

COURSE DESCRIPTIONS

<u>Comprehensive Health and Physical Education</u>	12
<u>English</u>	13
<u>English as a Second Language</u>	21
<u>Mathematics</u>	22
<u>Science</u>	29
<u>Social Studies</u>	35
<u>21st-Century Life and Careers</u>	42
<u>Visual and Performing Arts</u>	51
<u>World Languages</u>	60

Please call the School Counseling office at 973-457-2533 to contact a counselor if you have questions regarding course content or academic planning.

GENERAL INFORMATION

This booklet contains a description of courses offered for the 2018-2019 academic year. It also includes information about graduation requirements, course selection, guidelines for entrance and withdrawal from courses, standards for special class placement, athletic-eligibility rules, college admission requirements, the method of computing overall grade point average, and pupil records. Students and parents should become familiar with this information and should consult with a school counselor to develop an appropriate academic program.

GRADUATION REQUIREMENTS

Graduation, as used herein, refers to the satisfactory completion of a program of studies at Chatham High School under the policies of the Board of Education of the School District of the Chathams. In order to earn a state-endorsed Chatham High School diploma, students must demonstrate proficiency in the New Jersey Student Learning Standards, including the credit and testing requirements outlined below.

A. Requirements for Graduation

A student must meet each of the following requirements to be eligible for graduation:

1. Participate in a local program of study of not fewer than 120 credits;
2. Demonstrate the required proficiency in the PARCC or other alternative proficiencies as per the NJDOE.
3. Successfully complete one (1) year of comprehensive health and physical education for each year of enrollment;
4. Demonstrate attainment of minimum curricular proficiencies through successful completion of courses, including, but not limited to, credit hours in the following distribution:
 - a. At least 20 credits in language arts literacy, aligned to grade 9 through 12 standards;
 - b. At least 15 credits in mathematics, including algebra 1 or the content equivalent; geometry or the content equivalent; and a third year of mathematics that builds on concepts and skills of algebra and geometry and that prepares students for college and 21st century career;
 - c. At least 15 credits in science, including at least 5 credits in laboratory biology/life science or the content equivalent; one additional laboratory/inquiry-based science course which shall include chemistry, environmental science, or physics; and including one additional laboratory/inquiry-based science course;
 - d. At least 15 credits in social studies, including United States History I

- and II; five credits in world history; and the integration of civics, economics, geography, and global content in all course offerings;
- e. At least 2.5 credits in financial, economic, business, and entrepreneurial literacy;
 - f. At least 5 credits in visual and performing arts;
 - g. At least 10 credits in world languages or student demonstration of proficiency; and
 - h. At least 5 credits in 21st-century life and careers or career-technical education.

Technological literacy, consistent with the New Jersey Student Learning Standards, is integrated throughout the curriculum.

B. Transfer Students

Transfer students who enroll in Chatham High School may receive credit toward graduation for courses taken in properly accredited high schools outside the school district. However, they must meet the same local and state requirements for graduation as students who complete their entire high school program in the district.

C. Classified Students

The graduation requirements of a classified, educationally challenged student are prescribed by an Individualized Education Program determined by the Child Study Team. Successful completion of these requirements, in keeping with state and local requirements, will make the student eligible for graduation.

D. Early Graduation

In exceptional circumstances, a student may be permitted to graduate in fewer than four years provided:

1. The student's parents forward a written request to the high school principal at least two years prior to the anticipated graduation date,
2. The request is approved by the principal and endorsed by the superintendent of schools, and
3. The student meets all appropriate requirements outlined in board of education policy.

E. Commencement

A commencement will be conducted each June to honor and recognize students who have become eligible to graduate from high school since the commencement program of the previous year.

F. Notification of Students and Parents

Copies of graduation requirements are distributed annually to students, parents of incoming ninth-grade students, and to all transfer students at the time they enroll. They are based upon Board of Education Policy 6146 (Graduation Requirements/Early Graduation), which is available in the school office.

COURSE SELECTION

A. Guidelines

Student scheduling begins in the spring, and class schedules generally are finalized before the school year ends. Course choices related to one's particular interests and plans for the future need to be made with the following guidelines in mind.

1. The minimum program must include six subjects, including health/physical education and English.
2. Teacher recommendations are based on progress up through the end of the first semester. The master schedule is created based on this data and cannot be adjusted to accommodate additional students beyond maximum available seating.
3. Students registered for more than 30 credits may be allowed to withdraw from a course in accordance with the guidelines listed in the ENTRANCE AND WITHDRAWAL FROM COURSES section of this book.
4. Where courses are sequential, one may pursue a higher level only after adequately mastering the previous level as determined by departmental recommendation.
5. All requests for changes in a student's recommended level of instruction (waiver) must be submitted prior to March 21st to ensure entry into the class or between May 21st and May 31st to be considered if there are seats available. A student must earn a minimum of a 70% in order to be eligible to waive in subsequent courses.
6. Partial credit is not given. For a student to earn credit for a course in which he/she is enrolled, the entire course must be completed successfully.

B. Course Offerings

In the pages that follow, courses are grouped by subject areas, which are organized alphabetically. Students and parents should pay careful attention to grade-level limits, course prerequisites, and descriptions of course content. Requests to enroll in specific courses when stated guidelines are not fully met

will be reviewed by the academic department, school counseling department, and high school principal.

A course will be cancelled when there is insufficient enrollment. When this happens, students who have requested that course will be asked to make an alternative selection.

C. Counseling Services

Because of the breadth of curricular offerings and the variety of possible program sequences, students will benefit from discussing options with teachers and counselors. Members of the school counseling staff are available to answer questions that students or parents have and to help with long-range program planning. Because student success, pride in achievement, and personal satisfaction relate strongly to proper academic placement, every student is encouraged to meet with a school counselor before finalizing course requests.

ENTRANCE AND WITHDRAWAL FROM COURSES

Changing a student's academic program once classes have started disrupts the learning and teaching processes and is strongly discouraged. The following guidelines and procedures are used in dealing with requests for change in a student's schedule after the school year has begun.

A. Guidelines

1. Schedule changes require approval from all of the following: school counselor, teacher, administrator, and parent/guardian. A teacher may defer an initial request for change and ask for a conference with the student, parent, and school counselor to reach a decision in the best educational interest of the student.
2. During the first full rotational cycle of any semester, the only changes that will be allowed are those caused by mechanical scheduling errors or initiated by a classroom teacher and approved by the parents and counselor.
3. During the second rotation of any class, a student who wants to make a change in schedule (drop/add) must complete all steps listed below.
 - a. Speak with a school counselor to ensure that there are available seats in the class and that another class will not be overloaded in the move. If the change is feasible, the counselor will prepare forms for teacher and parent approval. (Class-size caps are established in the previous spring based on staffing and budgetary considerations.)
 - b. Meet again with the counselor to establish whether teacher and parent approval has been secured.

- c. Continue to attend all classes previously scheduled until final approval is received from all involved teachers.
4. Except as noted below, a student may not enter a full-year course after the first two rotations.
 - a. A student may change levels within a subject (e.g., Honors Geometry to Geometry) only until the mid-point of the first grading period unless the change is recommended by the teacher/counselor and is approved by the department supervisor. The student earns a full year of credit for the new course upon successful completion.
 - b. A student who waived into a higher level course must remain in that course until the middle of the first grading period. All grades will transfer into the new course and be calculated into the final grade of the new course.
 - c. Unique situations caused by transfer from another district will be resolved by the student's counselor and the teachers involved.
5. Semester courses may not be entered after the completion of the second rotation of the course. (The exceptions indicated above apply.)
6. Upon parent request and after the first full rotation of a full-year or semester one course, changes that involve dropping one course for a study hall but leaves the student enrolled in the requisite six courses per semester may be approved without administrative authorization.
7. Second-semester courses may not be dropped for a second study hall after the mid-point of the first grading period.

B. Credit, Grading, and Record of Schedule Changes

1. A student may withdraw from a course until the end of the fourth rotation with no notation made on his/her transcript. After that time, one of the following notations will be entered on the transcript:
 - a. Withdrawn (W) if the student has withdrawn from the course prior to the completion of 75% of the course.
 - b. Withdrawn Passing (WP) if the student has withdrawn from the course after 75% of the course is completed and the student's total average for the course to date is a passing one.
 - c. Withdrawn Failing (WF) if the student is removed from a course due to class cuts, absenteeism or disruption, or if the student's total average for the course to date is a failing one and the withdrawal is after 75% of the course is completed. This grade will be calculated as a failure in the student's overall grade point average.

2. No credit is given for a course from which a student withdraws.
3. A student may not withdraw from a course within the ten school days immediately preceding the end of that course.
4. When a student changes from one course to a similar higher or lower level course (e.g., English to Honors English, Honors Geometry to Geometry), the student's grade to date will transfer to the new course and be averaged with the grades subsequently earned in that new course.

SELECTION FOR SPECIAL COURSES

- A. Courses designated as "Honors" or "Advanced Placement" is intended to serve the needs of highly motivated, academically advanced students. Admission and continued enrollment are dependent upon the student's meeting all the following criteria:
 1. Department recommendation;
 2. Superior ability and/or achievement in previous coursework in the subject area;
 3. School counselor approval; and
 4. Evidence of continued effort and achievement commensurate with honors-level work.
- B. "Concepts" courses are college preparatory courses which are offered to help students develop proficiencies required for successful completion of all graduation requirements and further academic study. Admission is based upon:
 1. Department recommendation;
 2. Performance in previous coursework in that subject area;
 3. Performance on achievement and proficiency tests; and
 4. School counselor approval.

ALTERNATIVE STUDY OPTIONS (OPTION II)

A variety of learning opportunities exists for students who want to study or work in areas not covered in the formal school curriculum or who are gifted or talented in particular areas. These options include the following:

- A. College Coursework – Students enroll in local colleges for advanced work unavailable in the high school.

- B. Independent Study – A student and a supervising teacher develop a program as an alternative or addition to regular coursework. Independent study opportunities will not be granted if they substantially duplicate existing courses in the *Program of Studies*. Honors credit is not given for independent study. Prior approval from the Principal is required. A Pass/Fail grade will be issued to the student.

Proposals for full-year or first-semester independent study opportunities must be finalized by the second Monday in June. Second-semester course proposals need to be finalized by the mid-point of the first grading period.

- C. Individualized Student Learning – Provides students with the opportunity to meet NJSLS in physical education in a setting other than CHS. All applications are due the first week in September. Additional information can be found on the high school website under the physical education department.
- C. Lab Assistantship – A student assists a teacher in one of the school’s laboratory courses. A Pass/Fail grade will be issued to the student.
- D. Rutgers, The State University of New Jersey Partnership – Students take a Rutgers University class at Chatham High School.
- E. Senior Internship Program (SIP) – This four-week, non-credit internship allows seniors to participate in a work experience selected from a variety of fields, including, but not limited to, law, medicine, education, investments, accounting, law enforcement, and hotel/restaurant management. Students must apply and be interviewed in order to be considered. The program feasibility will be revisited each year with respect to staffing. Announcements will be made during the first semester.
- F. Summer School – Students pursue work for enrichment or remediation at state-approved summer schools. Prior approval from the Principal is required.
- G. Vocational Education – Students select specific, career-oriented courses from the offerings of Morris County School of Technology. (School counselors can provide the program information.) One half of the school day is spent at the technical school, the other half at Chatham High School.
- I. Virtual Course Offerings - Chatham High School is pleased to offer online learning opportunities for students. Students will be able to sign up for courses through Educere, a board-approved provider of online educational services, or any other approved virtual course provider. Payment for the courses will be the responsibility of the families and be made directly to the provider, except in certain circumstances, such as homebound instruction, when the board of education will pay the course fee.

Course Approval

All courses must be approved by the subject area supervisor. Students are able to take one virtual course within a core required sequence and an unlimited

number of elective courses. Students may take up to two virtual courses each semester, but may not exceed eight total courses in a semester. Unusual circumstances will be handled on a case-by case basis. Students must consult with their school counselor before registering for courses.

Summer School

Students may take up to two courses over the summer for a maximum of ten credits. Virtual and non-virtual courses taken over the summer must be completed by August 15th. Special circumstances may be granted to begin a summer course in the Spring Semester or complete the course in the fall semester as long as the student does not already have eight scheduled courses in either semester.

Grading

All grading will be done through the course provider. Grades will not count toward a student's grade point average at Chatham High School. Virtual courses will be listed on a student's transcript, but they will be designated as a virtual course. The numerical grade assigned by the provider will be translated to an alpha grade based on the CHS grading scale and will display on the transcript. All grades will appear on the transcript unless notified by the student's parent within 10 days of receiving the final grade.

Chatham High School updates transcript information two times per year. Coursework assigned a final grade by January 15 will appear on the mid-year transcript. Classes where grades are finalized by June 1 will be included on the end of the year transcript.

The one exception is homebound instruction. In that case, the Educere instructor will communicate the student's progress to the Chatham High School teacher of record, who will determine the student's final grade.

ATHLETIC ELIGIBILITY

- A. A student must have earned at least 30 credits in the previous academic year to be eligible to participate on a fall or winter interscholastic athletic team. To be eligible for a spring team, the student must have successfully completed 15 credits in the preceding semester. First-semester freshman students have no credit requirements.
- B. A senior student who has followed an accelerated academic program during the first three years of high school may be eligible in the second semester without meeting the 15 credit requirement, provided the student is satisfying all district graduation requirements and passing all courses.

COLLEGE ADMISSION REQUIREMENTS

Colleges differ significantly in their admission requirements, but generally expect students to have completed at least sixteen (16) full-year academic courses in the disciplines of English, world languages, mathematics, science, and social studies. Some institutions may accept courses within the fine and practical arts, business, computer, and technology fields, especially if these relate to an intended college major. Students are responsible for consulting the publications of specific colleges for definitive requirements.

Many colleges have very demanding admission standards. Often they have several applications for every opening. These colleges expect a student's high school academic background to be more extensive than the sixteen-course program. Students should work with a counselor to develop a four-year program that will not only satisfy general distribution requirements, but also address personal goals.

GRADING SYSTEM

- A. Grades for Chatham High School courses will be used to calculate grade point average. Virtual courses taken through our approved providers may be used to fulfill a graduation requirement, but will not be included in the GPA calculation. These courses require pre-approval before registering. All other courses taken outside of Chatham High School may satisfy a prerequisite requirement, but will not be awarded credit or included in GPA calculation. Courses taken outside of Chatham High School (i.e. virtual, summer school, etc.) may be used to fulfill a requirement for graduation, but will not be included in the GPA calculation. Courses taken for credit recovery outside of Chatham High School may result in earned credit, but will not calculate toward GPA.
- B. Courses taken prior to enrollment in Chatham High School are not counted in GPA tabulations.
- C. Grade point average is obtained by multiplying grade quality points by the credits and dividing this sum by the total number of course credits attempted.

The GPA formula is:
$$\frac{\text{Sum (grade quality points x course credits)}}{\text{Cum Course Credits}}$$

- D. A valedictorian and salutatorian will be recognized in each graduating class. To be eligible for selection as valedictorian or salutatorian, a student must have attended Chatham High School for at least four full semesters and must have completed a minimum of sixty (60) credits in Chatham High School. The grade point average for this calculation, as computed by the student database management system, will be completed after the seventh semester. Continued high class standing will be confirmed by the school administration.

E. The grading scale outlined below is used in reporting student progress. The scale uses a five (5) credit, full-year course as its basis for calculating quality points.

GRADING SCALE

QUALITY POINTS
REGULAR COURSES HONORS COURSES

97-100 = A+	4.33	5.41
93-96 = A	4.00	5.00
90-92 = A-	3.67	4.59
87-89 = B+	3.33	4.16
83-86 = B	3.00	3.75
80-82 = B-	2.67	3.34
77-79 = C+	2.33	2.91
73-76 = C	2.00	2.50
70-72 = C-	1.67	2.09
67-69 = D+	1.33	1.66
63-66 = D	1.00	1.25
60-62 = D-	.67	.84
0-59 = F (FAIL)	0.00	0.00

PUPIL RECORDS

Only authorized organizations, agencies, or persons have access to pupil records. These include, among others:

1. The parent of a pupil under the age of 18 and the pupil who has the written permission of such parent;
2. Pupils at least 16 years of age who are terminating their education in the district because they will graduate from secondary school at the end of the term or no longer plan to continue their education;
3. The adult pupil and the pupil's parent who has the written permission of such pupil, except that the parent shall have access without consent of the pupil as long as the pupil is financially dependent on the parent and enrolled in the public school system or if the pupil has been declared legally incompetent by a court of appropriate jurisdiction.

Should the parental rights of one or the other parent or guardian be terminated by a court of appropriate jurisdiction, it is the responsibility of the person or agency having legal custody to provide a copy of the court order to the district indicating that the right to review pupil records should be denied the person whose rights have been terminated.

Student information directories, which include information such as student name, address, telephone number, grade level, and date of birth, are permitted and by law are available to educational, occupational, and military recruiters, although any adult

pupil or parent may request in writing to be excused from participating in all recruitment programs or having the pupil's name appear in student information directories for all recruitment purposes. Pupil records are subject to challenge by parents and adult pupils. Copies of applicable state and federal law and local policies are available to parents upon request.

AFFIRMATIVE ACTION

The Board of Education of the School District of the Chathams affirms its responsibility to ensure equal educational opportunity to all students in its public schools regardless of ancestry, color, creed, national origin, race, religion, sex, and social or economic status.

COURSE DESCRIPTIONS

(New or amended courses are in RED)

COMPREHENSIVE HEALTH AND PHYSICAL EDUCATION

Grade 9 (3110) - 5 Credits

Grade 10 (3120) - 5 Credits

Grade 11 (3130) - 5 Credits

Grade 12 (3140) - 5 Credits

Full Year

Prerequisite: None

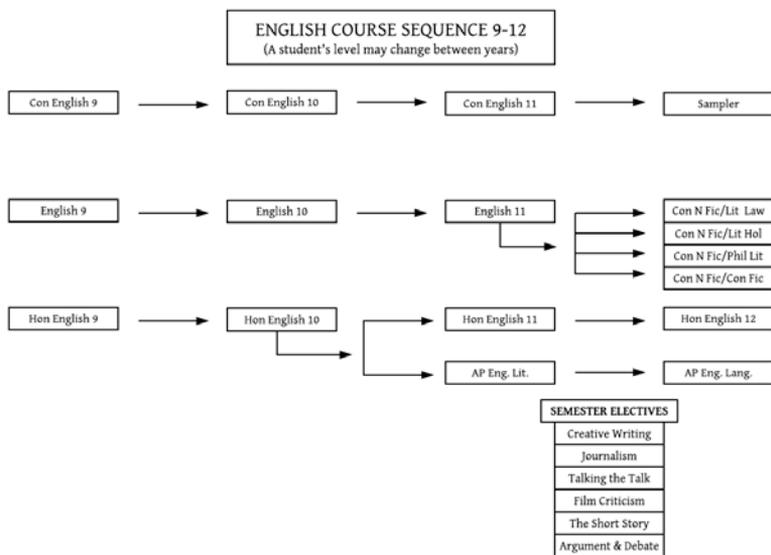
Consistent with the state standards, all students participate in a comprehensive health and physical education program during their four years at the high school. Ninth-grade students have a semester of classroom-based health and wellness education and a semester of physical education. Tenth-grade students participate in driver education for one quarter and physical education for three quarters of the year. Eleventh-grade and twelfth-grade students participate in one quarter of comprehensive health education and three quarters of physical education.

In health class, students learn how to promote and support a healthy, active lifestyle by studying such topics as personal growth and development, nutrition, diseases and health conditions, safety, and social and emotional health. Students also develop personal and interpersonal skills by examining such topics as communication, decision-making, goal setting, character development, and health services. The curriculum also covers alcohol, tobacco, drugs, and other medicines, and students learn about human relationships and sexuality.

Tenth-, eleventh-, and twelfth-grade students take physical education classes, which help them acquire the skills and knowledge necessary for participating in lifetime physical activities and supporting a healthy, active lifestyle. The students learn safe practices, rules, strategies, and basic principles of individual and team sports and activities. The curriculum specifically provides opportunities for students to navigate the low- and high-challenge courses, test their physical fitness through weightlifting and aerobic exercises, engage in yoga and dance, and participate in

sports such as field hockey, soccer, flag football, volleyball, basketball, softball, floor hockey, lacrosse, badminton, Frisbee, and team handball. Tenth-grade students also take Driver Education, a classroom-based program that focuses on the laws governing driving and safety as outlined in the New Jersey State Drivers' Manual. Students meet the requirement of 30 classroom hours of instruction and are given the actual written portion of the New Jersey driver's test at the end of the course. After earning an 80% or higher on the test, students are presented with a NJ Secondary School Driver Exam Certificate.

ENGLISH



CONCEPTS IN ENGLISH 9 (1112)

Grade 9

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of eighth-grade English

This course is designed to help students improve their language arts skills and develop a stronger understanding of the elements of fiction through the analysis of short stories, novels, and plays. In addition, students read and analyze poetry and nonfiction and study a humanities unit. They also study world mythology in order to understand classical allusions and recognize basic similarities and differences in cultural stories of the world. Major texts include Wiesel's *Night*, Barrett's *Lilies of the Field*, Satrapi's *Persepolis*, Homer's *Odyssey*, Shakespeare's *Midsummer Night's Dream* or *Romeo and Juliet*, in abridged and adapted forms when necessary. Reading comprehension, writing skills, vocabulary development, and study skills are areas of emphasis throughout the course. This course satisfies the state graduation requirement for English 9.

ENGLISH 9 (1116)

Grade 9

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of eighth-grade English

English 9 is designed to help students develop their critical reading and analytic writing skills, build their vocabularies, enhance their understanding of grammar, and broaden their research skills. They begin the course with a humanities unit before moving to major core works that include Homer's *Odyssey*, Shakespeare's *Midsummer Night's Dream* and *Romeo and Juliet*, Wiesel's *Night*, Barrett's *Lilies of the Field*, and Satrapi's *Persepolis*. In addition, students closely examine classical mythology and study a range of short stories by Edwidge Danticat, Jhumpa Lahiri, and Maxine Hong Kingston, as well as poetry and nonfiction from around the world. They also complete several short research projects. This course satisfies the state graduation requirement for English 9.

HONORS ENGLISH 9 (1118)

Grade 9

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of eighth-grade English

Honors English 9 is a rigorous academic program that requires advanced reading, writing, and vocabulary skills, as well as active class participation. The course is designed to help students in their quest to become highly critical readers, sophisticated speakers and writers, and independent researchers. The initial unit of study focuses on the humanities with Plato's *Cave* as the core selection. In the units that follow, major core texts include Homer's *Odyssey*, Shakespeare's *Romeo and Juliet*, Achebe's *Things Fall Apart*, Wiesel's *Night*, and Shelley's *Frankenstein*, which are supplemented with units on related poetry, short stories, and nonfiction. Students complete a research project that connects literature and history to the students' own growing awareness of the world. This course satisfies the state graduation requirement for English 9.

CONCEPTS IN ENGLISH 10 (1122)

Grade 10

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of freshman English

Structured to strengthen students' language arts skills, this course focuses on literature that explores ideas of individualism and identity. Major works include London's *Call of the Wild*, Hemingway's *Old Man and the Sea*, Salinger's *Catcher in the Rye*, and Alexie's *Lone Ranger and Tonto Fistfight in Heaven*. Students also read Shakespeare's *Macbeth* and study poetry, short stories, and essays. Through the study of this literature, students strive to increase their vocabularies, further develop their reading comprehension and writing skills, and improve their ability to

complete independent research throughout the course. This course satisfies the state graduation requirement for English 10.

ENGLISH 10 (1126)

Grade 10

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of freshman English

In English 10, students continue to develop their language arts skills with an emphasis on inferential reading, analytical writing, vocabulary, grammar, and research. The literature focuses on the struggle of the individual in society. Students study Hesse's *Siddhartha*, Salinger's *Catcher in the Rye*, Miller's *Crucible*, Shakespeare's *Macbeth*, Wolff's *This Boy's Life*, Gaines's *A Lesson Before Dying*, and Alexie's *Lone Ranger and Tonto Fistfight in Heaven*, as well as essays, poetry, and short stories that are representative of the Transcendental and Romantic movements. In addition, students may select from a list of contemporary works that offer insight into the timeless nature of the individual's struggle in society. Students also engage in several research projects throughout the year. This course satisfies the state graduation requirement for English 10.

HONORS ENGLISH 10 (1128)

Grade 10

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of freshman English

Well-developed inferential reading skills, excellent diction, the ability to write complex and varied sentences, and the stamina to write lengthy analytical compositions are the essential skills required of the successful Honors English 10 student. The literature of the course is primarily early American nonfiction and fiction: speeches, journals, letters, essays, biography, and autobiography, as well as poetry, short stories, and novels. Representative writers include Emerson, Thoreau, Irving, Poe, Hawthorne, and Dickinson. Also included are modern American novels and plays, such as Salinger's *Catcher in the Rye*, Kesey's *One Flew Over the Cuckoo's Nest*, and Miller's *Crucible*. In addition, because the English teachers believe that students at each grade level should have exposure to Shakespeare's works, sophomores read and study *Macbeth*. Students are expected to regularly contribute to class discussions and participate in class activities. Students also complete a substantial research paper, bearing some connection to the authors, titles, or topics studied in the classroom. This course satisfies the state graduation requirement for English10.

CONCEPTS IN ENGLISH 11 (1132)

Grade 11

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of sophomore English

This course helps students strengthen their language arts skills within the context of an American literature curriculum. Students study the basic elements and structure of fiction and nonfiction written by American authors, but also may read and study Shakespeare's *Othello* in adapted form. The literature, which includes such selections as Twain's *Adventures of Huckleberry Finn*, Wilson's *Fences*, O'Brien's *Things They Carried*, and Fitzgerald's *Great Gatsby*, is taught with a focus on inferential reading skills and literary analysis. Students also build their vocabularies, strengthen their knowledge of grammar and usage, and develop their research and writing skills. This course satisfies the state graduation requirement for English 11.

ENGLISH 11 (1136)

Grade 11

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of sophomore English

English 11 is an American literature course, which mainly focuses on twentieth-century writers. The core works include, but are not limited to, Twain's *Adventures of Huckleberry Finn*, Fitzgerald's *Great Gatsby*, Hemingway's *Sun Also Rises*, O'Brien's *Things They Carried*, Miller's *Death of a Salesman*, and Wilson's *Fences*. In addition, students read and study poetry, short stories, and nonfiction. Students explore literature through biographical, historical, and sociological perspectives and view it with an eye to usage and diction, especially as it applies to the writing process. Because the English teachers believe that students at each grade level should have exposure to Shakespeare's works, juniors read and analyze *Othello*, which explores several of the ideas studied in the English 11 curriculum. A research paper is required. This course satisfies the state graduation requirement for English 11.

HONORS ENGLISH 11 (1138)

Grade 11

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of sophomore English

Honors English 11, a rigorous American literature course, is designed for highly motivated students who have well-developed language arts skills. Students analyze poetry and prose and study a number of core texts, including Faulkner's *As I Lay Dying*, James's *Washington Square*, McCarthy's *All the Pretty Horses*, Twain's *Adventures of Huckleberry Finn*, O'Brien's *Things They Carried*, Hurston's *Their Eyes Were Watching God*, Hemingway's *Sun Also Rises*, and Fitzgerald's *Great Gatsby*. Because the English teachers believe that students at each grade level should have exposure to Shakespeare's works, juniors read and study Shakespeare's *Othello*, which presents several of the themes explored in the honors curriculum. Demanding reading and writing requirements enhance analytical skills and prepare students for college-level work. Students also complete a research paper. This course satisfies the state graduation requirement for English 11.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION (1139)

Grade 11

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of sophomore English

AP English is equivalent to an introductory college English course in the study of literature and composition. Students must have excellent reading, writing, listening, and discussion skills to succeed in this course. Texts, which are sophisticated and challenging, have been selected to develop advanced critical-reading and analytic-writing skills and to expose students to a wide range of literature that goes beyond the American literature curriculum found at the honors level. Among others, the texts include Austen's *Emma*, Conrad's *Heart of Darkness*, Bronte's *Wuthering Heights*, Shakespeare's *Richard II*, Faulkner's *Sound and the Fury*, James's *Washington Square*, O'Brien's *Things They Carried*, McCarthy's *All the Pretty Horses*, Hemingway's *Sun Also Rises*, and Fitzgerald's *Great Gatsby*. Students also undertake an in-depth critical study of poetry and regularly write analytic essays. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP English Literature and Composition Exam, which they are strongly encouraged to take. This course satisfies the state graduation requirement for English 11.

SENIOR ENGLISH COURSES

Please note: Students may satisfy the senior English requirement by completing one of the full-year courses listed below. General English elective courses do not meet this requirement.

ENGLISH 12: A SAMPLER (1140)

Grade 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of junior English

Throughout the year, students work on the development of their reading, comprehension, writing, listening, and speaking skills through a sampling of texts studied in the senior semester courses: The Literature of Holocaust and Genocide, Literature and Law, Literature of Immigration, Modern Drama, and Contemporary Nonfiction. Texts include *The Devil's Arithmetic*, *Voices of the Holocaust*, *Twelve Angry Men*, an adapted version of Shakespeare's *Hamlet*, and other poetry, drama, and nonfiction selections. Students engage in several research projects and use technology to enhance their literacy skills.

ENGLISH 12: PAIRED OPTIONS (FULL-YEAR COURSES)

Grade 12

Full year: 5 Credits

Prerequisite: Department recommendation and successful completion of junior English

The four semester-length courses described below are paired and offered as full-year, five-credit courses. Each paired option satisfies the state graduation requirement for English 12. The current available pairings include the following:

CONTEMPORARY NONFICTION / LITERATURE AND LAW (1142)

CONTEMPORARY NONFICTION / LITERATURE OF HOLOCAUST AND GENOCIDE (1143)

CONTEMPORARY NONFICTION / PHILOSOPHY IN LITERATURE(1144)

CONTEMPORARY NONFICTION / CONTEMPORARY FICTION (1145)

CONTEMPORARY NONFICTION

In this course, students experience an entry-level college composition course that is designed to improve their critical reading and analytic writing. The texts, which provide opportunities for interdisciplinary study in the fields of business and economics, sports, and politics, may include such nonfiction works as *Fast Food Nation*, *Freakonomics*, *Nickel and Dimed*, *Seabiscuit*, and *Friday Night Lights*, as well as modern and contemporary essays and speeches. By examining texts closely, students learn to read with a writer's eye and write with a reader's ear. Writing assignments range from the analytic and expository to the narrative and creative.

LITERATURE AND LAW

In this interdisciplinary English course, students read texts through literary and rhetorical lenses as they explore how law permeates society. The core works may include Guterson's *Snow Falling on Cedars*, Shakespeare's *Merchant of Venice*, Camus's *Stranger*, Harr's *A Civil Action*, Garcia Márquez's *Chronicle of a Death Foretold*, Rose's *Twelve Angry Men*, and Sophocles' *Antigone*. Films and popular media are used to debunk myths and explore our culture's fascination with the practice of law. Students write analytic papers, complete reader-response journals, and participate in class discussions. They also may conduct mock trials, participate in moot court arguments, and study Supreme Court opinions to enhance their understanding of the connections between literature and law. A research paper is required.

LITERATURE OF HOLOCAUST AND GENOCIDE

Students read, study, and discuss full-length selections and excerpts of literature written by Holocaust and genocide victims and survivors, including diaries, poetry, short stories, autobiographies, memoirs, and other related materials. Major works may include such titles as the *Definitive Diary of a Young Girl* by Anne Frank, *Survival in Auschwitz* by Primo Levi, *First They Killed My Father* by Luong Ung, and *Black Dog of Fate* by Peter Balakian. Students maintain a journal in response to the readings and complete analytic papers. A research paper is required.

PHILOSOPHY IN LITERATURE

In the Philosophy in Literature course, students examine how philosophical movements are examined in classic and contemporary literature. Students will read full length and excerpted philosophical and imaginative texts as they analyze one's

influence on the other. The texts will provide students the opportunity explore interdisciplinary fields of study as they consider the historical context of the works they read. Major works may include *The Stranger* by Albert Camus, *The Metamorphosis* by Franz Kafka, *Waiting for Godot* by Samuel Beckett, and *Siddhartha* by Hermann Hesse. Students will also read works by authors such as Dante, Plato, Virginia Woolf, Jane Austen, and William Shakespeare and philosophers such as Soren Kierkegaard, Karl Marx, Hannah Arendt, and Aristotle.

CONTEMPORARY FICTION

Contemporary Fiction offers students the opportunity to revisit several themes and essential questions they have considered in their previous English classes while studying the classics. However, in this course they will examine how these themes continue to be relevant in contemporary fiction. Students will read and analyze texts written within the last 15 years. Some of the texts that may be included in the course are *The Kite Runner* by Khaled Hosseini, *After the Deluge* by Josh Neufeld, *The Road* by Cormac McCarthy, or *Gilead* by Marilyn Robinson. Students spend much of the semester in literature circles to provide them the option to study texts they select from a department generated list of options.

HONORS ENGLISH 12 (1148)

Grade 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of junior English

In this course, students explore representative works of classical and modern British and world literature, but also study rhetoric in the context of those works and nonfiction selections. Students engage in the analysis of language—diction and syntax in particular—as it is used within a variety of genres, including poetry, drama, short fiction, novels, and nonfiction. Core works include such texts as Sophocles’ *Antigone*, Camus’s *Stranger*, Shakespeare’s *Hamlet*, and Kafka’s *Metamorphosis*, Schlosser’s *Fast Food Nation*, Ehrenreich’s *Nickel and Dimed*, and Levitt and Dubner’s *Freakonomics*, as well as essays such as Camus’s *Myth of Sisyphus* and King’s *Letter from Birmingham Jail*. Throughout the course, students write reader responses and compose analytic essays, but also use technology to create authentic contexts for studying literature and language. Research informs several projects throughout the year.

ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION (1160)

Grade 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of junior English

AP English provides students with an opportunity to experience an entry-level college composition course. Studying challenging works of prose from a wide range of time periods and contexts, students develop into sophisticated critical readers and analytic writers who understand rhetoric and its varied effects. The texts, which

provide opportunities for interdisciplinary study, include nonfiction books such as Harr's *Civil Action* Schlosser's *Fast Food Nation*, Hillenbrand's *Seabiscuit*, and Ehrenreich's *Nickel and Dimed* and essays such as Aristotle's *Poetics*, Camus's *Myth of Sisyphus*, and King's *Letter from Birmingham Jail*. Students also study a wide range of poetry and fiction, including Sophocles' *Antigone*, Camus's *Stranger*, Shakespeare's *Hamlet*, and Kafka's *Metamorphosis*, through literary and rhetorical lenses. Frequent writing assignments are chiefly analytic and expository, but students also explore narrative nonfiction and other modes of writing for a variety of purposes. The curriculum has been approved by the College Board's Advanced Placement Program, and students are strongly encouraged to take the AP English Language and Composition Exam in the spring.

ENGLISH ELECTIVES

Please note: The following courses do not satisfy the state graduation requirement for any grade level of English study.

CREATIVE WRITING (1161)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Student interest and successful completion of freshman English

Creative Writing is designed for students who enjoy writing and would like an opportunity to write, share, peer edit, revise, and publish creative descriptions, character sketches, short stories, poems, and scripts. The process approach to writing is taught and encouraged. Students keep a writing portfolio and are encouraged to submit polished works to the school literary magazine for possible publication.

JOURNALISM (1165)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Student interest and successful completion of freshman English

This course introduces students to the various elements of journalism, including news and sports reporting and editorial and feature writing. Emphasis is placed on copy, layout, setup, and reproduction processes used in producing printed, broadcast, and video-recorded information. The course provides a foundation for students involved in newspaper, yearbook, or other school publications or for those who may pursue a career in publishing, journalism, public relations, or advertising. The role of the media in contemporary life also is examined.

TALKING THE TALK: EFFECTIVE PRESENTATION SKILLS (1167)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Successful completion of freshman English

This course will explore a variety of rhetorical strategies and techniques with a focus on effective public speaking and presentations. We will watch and critique a number of different TED Talks and analyze their effectiveness. We will evaluate effective

presentation tools like slides, infographics, and props. Students will be given choice to explore an area of interest in depth. They will conduct extensive research and ultimately create and present their own TED Talk, utilizing what they've learned about what makes for an effective presentation.

ARGUMENT & DEBATE (1169)

Grades 11, 12

Half Year: 2.5 Credits

Prerequisite: Student interest and successful completion of sophomore English

This elective course provides students the opportunity to carefully examine and practice how to expertly craft an argument. They explore how writers and speakers use rhetoric to appeal to a particular audience and achieve an intended purpose. Students read, view and research many speeches and debates as well as persuasive and argumentative essays. Students deliver formal presentations, participate in debates and compose essays as they develop their argument skills.

FILM CRITICISM (1175)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Student interest and successful completion of freshman English

Film Criticism introduces students to the elements of film and teaches them to view a film, as they would read a text. Students sharpen their analytic skills by learning how producers and directors create films and use cinematic techniques, much like writers use literary conventions, to create mood, theme, and character. As a result, students are expected to become discriminating critics who can write informed, analytic reviews of films.

THE SHORT STORY (1191)

Grades 11, 12

Half Year: 2.5 Credits

Prerequisite: Student interest and successful completion of sophomore English

This writing workshop course allows students to closely study various short authors, analyzing the craft and structure in different genres. Students, then, write their own short stories in these same genres to practice the techniques they noted during their study. Students may read and write stories in the science fiction, realistic fiction, humor and post-modernist styles.

ENGLISH AS A SECOND LANGUAGE

ESL (1107)

Grades: 9, 10, 11, 12

Full Year: 5 credits

Prerequisite: ESL student; school counselor recommendation

This course is designed to support student acquisition of study skills and student learning of basic skills in content areas. There is an additional focus on mastery of

vocabulary, grammar, and writing skills. Instruction targets the educational needs of the group, but is highly individualized. The course also is designed to help students assimilate into the school culture while preserving their own cultural identity. This course may be repeated for credit.

ESL ENGLISH (1109)

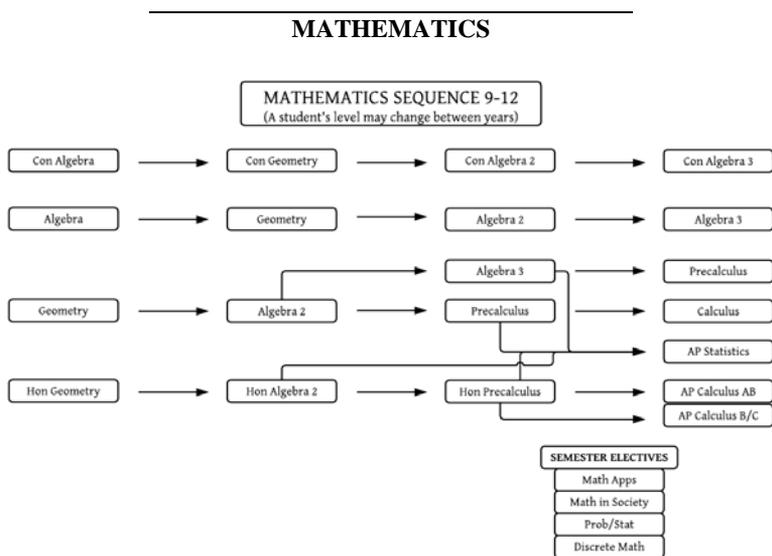
Grades: 9, 10, 11, 12

Full Year: 5 credits

Prerequisite: ESL student; school counselor recommendation

This course is designed to meet the needs of students whose English language proficiency is limited. Through a variety of instructional methods, students will develop their listening, speaking, reading, and writing skills. Specifically, students will learn to comprehend spoken English in social and school settings, to use English in socially and culturally appropriate ways, and to read and write for recreational and academic purposes. Mastery of academic language that supports student learning in other content areas is an essential component of this course.

The course meets the state graduation requirements for language arts literacy. The level of difficulty is adjusted for the individual as he or she demonstrates increased proficiency. Students, therefore, may repeat the course for credit.



ALGEBRA & GEOMETRY ACCELERATOR (1509)

Grades: 9, 10, 11

Half Year: 2.5 Credits

Prerequisite: Department recommendation and concurrent enrollment in Geometry or Algebra 2

This course aims to strengthen a student's understanding of the algebraic concepts that can be found in most high school courses in mathematics. An individualized learning plan for each student will be developed to address the gaps in their algebraic understanding.

CONCEPTS IN ALGEBRA 1 (1512)

Grades 9, 10, 11, 12

Fully Year: 5 Credits

Prerequisite: Department recommendation

Algebra 1 provides the foundation for students to succeed in more advanced mathematics courses. This course examines the properties of the real number system, including integers, rational numbers and irrational numbers. Topics include graphing, solving equations and inequalities, polynomials, problem solving, equations of a line, and set theory. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Algebra 1. This course will provide smaller class sizes and additional supports compared to the traditional Algebra 1 course.

ALGEBRA 1 (1514)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation

Algebra 1 provides the foundation for students to succeed in more advanced mathematics courses. This course examines the properties of the real number system, including integers, rational numbers and irrational numbers. Topics include graphing, solving equations and inequalities, polynomials, problem solving, equations of a line, and set theory. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Algebra 1.

CONCEPTS IN GEOMETRY (1522)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of an Algebra 1 course

This college preparatory course in Euclidean (plane) geometry emphasizes the properties of geometric figures and geometric applications. The course integrates arithmetic and algebraic procedures in the solutions of geometric problems. Topics include parallel and perpendicular lines; areas and volumes of plane figures; and similarity, congruence, and transformations. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Geometry.

GEOMETRY (1524)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of an Algebra 1 course

This course provides an understanding of the practical uses of geometry and the application of deductive reasoning in proofs. Skills are developed in the traditional topics of Euclidean geometry, which includes studies of similarity, congruence, circles, areas, and volumes. Problem-solving aspects of this course call upon the skills developed in Algebra 1. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Geometry.

HONORS GEOMETRY (1526)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of an Algebra 1 course

This rigorous course deals with plane and solid Euclidean geometry and analytic geometry. It is intended for highly motivated students who have been very successful in Algebra 1 or eighth-grade algebra. Topics include properties of similarity and congruence; applications in areas and volumes; properties of triangles, other polygons, and circles; exercises with constructions and loci; and discoveries in analytic geometry. A major emphasis is placed on deductive proofs. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Geometry.

CONCEPTS IN ALGEBRA 2 (1532)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of a Geometry course

This college preparatory course focuses on the applications of algebra and the concepts and skills necessary for future success in mathematics. More specifically, the course continues the investigation of the real number system and introduces the complex number system. Students can expect to begin with a brief review of Algebra 1 skills before moving into topics that include real numbers, solving equations and inequalities, graphing, polynomials, radicals, and complex numbers. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Algebra 2.

ALGEBRA 2 (1534)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of a Geometry course

Algebra 2, a continuation of the study of the real number system, introduces the system of complex numbers. Students work with operations on and simplifications

of polynomials and rational expressions and learn to create solutions to systems of linear/quadratic equations and inequalities. Other topics include variation, radical expressions, matrices, and logarithms. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Algebra 2.

HONORS ALGEBRA 2 (1536)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of a Geometry course

This course includes the topics taught in Algebra 2, plus a thorough introduction to trigonometry. The concept of mathematical function is developed and refined through the study of real numbers, complex numbers, polynomials, conic sections, equations and inequalities, exponents, logarithms, trigonometry, and sequences and series. This demanding course puts a premium on reasoning and problem-solving skills. This course is aligned with the Common Core State Standards for mathematics, and prepares students for the PARCC assessment in Algebra 2.

CONCEPTS IN ALGEBRA 3/ TRIGONOMETRY (1537)

Grades 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of an Algebra 2 course

This college preparatory algebra course designed to strengthen and reinforce topics learned in Algebra 1, Geometry and Algebra 2 and to prepare students for College Algebra. Covered are selected topics, including systems of linear equations, polynomials, factoring, rational expressions, radicals, solving quadratic equations and selected introductory trigonometry and statistics topics. This course is for students who are not pursuing Precalculus.

ALGEBRA 3/ TRIGONOMETRY (1538)

Grades 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of an Algebra 2 course

This college preparatory algebra course designed to build on topics learned in Algebra 1, Geometry and Algebra 2 and to prepare students for Precalculus. Covered are selected topics, including systems of linear equations, polynomials, factoring, rational expressions, radicals, solving quadratic equations and selected trigonometry and statistics topics. This course is for students who are pursuing Precalculus.

PRECALCULUS (1541)

Grades 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of an Algebra 2 course

This course emphasizes application of the concepts learned in Algebra 1, Algebra 2, and Geometry. The curriculum includes a thorough treatment of trigonometry as well as polynomial, exponential, and logarithmic functions; coordinate geometry; sequences and series; function graphing; polar coordinates; and complex numbers.

HONORS PRECALCULUS (1542)

Grades 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of an Algebra 2 course

This rigorous Precalculus course provides a bridge between intermediate algebra and calculus, providing a more in-depth treatment of the topics covered in Precalculus. In addition to the topics covered in Precalculus, students also study limits, DeMoivre's theorem, the derivative, extrema, matrices, vectors, and surfaces in 3-space.

CALCULUS (1552)

Grade 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of Precalculus

This course is an introductory study of calculus. Students study limits, differential and integral calculus, and applications of the above. Topics include properties of continuity and limits, the slope of a curve, the rate of change of a function, techniques for finding derivatives of algebraic and trigonometric functions, extrema, the mean value theorem, integration, area, and volume. This course does not prepare students for an AP examination in calculus.

ADVANCED PLACEMENT CALCULUS/AB (1556)

Grade 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of Honors Precalculus

In this typical first-year college-level course, the scope is broad and the work exceptionally demanding. Topics include the slope of a curve, the rate of change of a function, properties of limits, derivatives of algebraic functions, maxima, minima, Rolles theorem, the mean value theorem, polar coordinates, integration, the trapezoidal rule, parametric equations, and differentiation of trigonometric and exponential functions. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Calculus AB Exam.

ADVANCED PLACEMENT CALCULUS/BC (1560)

Grade: 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of Honors
Precalculus

Calculus instruction is typically demanding and covers a broad range of topics, including the slope of a curve, the rate of change of a function, properties of limits, derivatives of algebraic functions, maxima, minima, Rolles theorem, the mean value theorem, polar coordinates, integration, the trapezoidal rule, parametric equations, and differentiation of trigonometric and exponential functions. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Calculus BC Exam.

ADVANCED PLACEMENT CALCULUS/BC, (1562)
ADVANCED PLACEMENT PHYSICS C: MECHANICS AND
ELECTRICITY & MAGNETISM(1460)

Grade: 11, 12

Full Year: 5 Credits Calculus and 6 Credits Physics

Prerequisite: Department recommendation and successful completion of AP Physics
1 and Honors Precalculus

In this integrated program, students are enrolled in both AP Calculus BC and AP Physics C. The course is taught during a two-period block of time that is used at the discretion of the teachers. Throughout the year, topics are covered in one subject that supplement, reinforce, enhance, introduce, build on, and extend topics in the other. Some tests are combined, and some of the classes are team-taught. Students receive grades for each class that appear separately on the transcript.

ADVANCED PLACEMENT STATISTICS (1564)

Grades 10, 11, 12

Full Year: 5 credits

Prerequisite: Department recommendation and successful completion of an Algebra
2 course

The purpose of the Advanced Placement Statistics course is to introduce the students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to four broad conceptual themes: exploring data by describing patterns and departures from patterns; sampling and experimentation by planning and conducting studies; anticipating patterns by exploring random phenomena using probabilities and simulations; using statistical inference by estimating population parameters and testing hypotheses. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Statistics Exam.

MATHEMATICS SEMESTER ELECTIVES

DISCRETE MATH (1570)

Grades 11, 12

Half Year: 2.5 Credits

Prerequisite: Successful completion of an Algebra 2 course

Discrete mathematics is a rapidly expanding area of mathematics with many practical and relevant applications in a variety of fields. This course offers the study of such topics as mathematical codes, combinatorial problems and optimization, graph theory and its applications, spanning trees, efficient scheduling, and mathematical concepts of fairness. Problem solving is emphasized and algorithmic solutions suited to computer programming are developed and analyzed.

PROBABILITY AND STATISTICS (1572)

Grades 11, 12

Half Year: 2.5 Credits

Prerequisite: Successful completion of an Algebra 2 course

This course involves the collection and analysis of statistical data as used in business and scientific research. Topics include data collection, numerical methods of analyzing data, statistical distributions, probability, principles of counting, linear correlation, and hypothesis testing.

MATHEMATICAL APPLICATIONS (1574)

Grade 11, 12

Half Year: 2.5 credits

Prerequisite: Successful completion of an Algebra 2 course

This semester course is designed for seniors who want to continue to improve mathematical knowledge while exploring the ways in which mathematics is used in life. Students will strengthen their skills by applying them in real-world situations. Applications and project-based themes may include mathematical patterns, real-world statistics, and mathematics in such areas as finance, sports, engineering, and technology. Students will use the language of mathematics in reflecting and reporting their results and discoveries.

MATHEMATICS IN SOCIETY (1576)

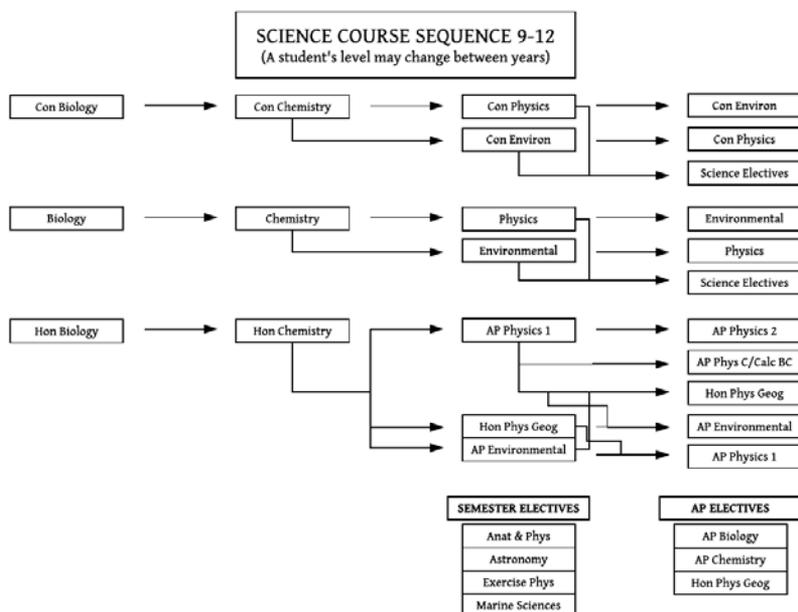
Grades 11, 12

Half Year: 2.5 Credits

Prerequisite: Successful completion of an Algebra 2 course

This semester course is designed for seniors who want to continue to improve mathematical knowledge while exploring the ways in which mathematics is used in life. Students may discover mathematical connections in careers and how math is applied in areas such as business, sports, and music. Students may also explore and question the accuracy of how statistics is used in real-world settings as a means of reporting data to a population. There will be a focus on interdisciplinary connections exploring how math supports much of what we see in society.

SCIENCE



CONCEPTS IN BIOLOGY (1422)

Grade 9

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of an eighth-grade science course

This course provides students with a general understanding of major biological concepts. Students explore such topics as biochemistry, cell structure and function, heredity, and evolution. Numerous hands-on learning activities are used to facilitate student learning throughout the course. Laboratory investigations stress observations and qualitative analysis of data.

BIOLOGY (1424)

Grade 9

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of an eighth-grade science course

This course provides students with a comprehensive understanding of the molecular and cellular composition of living organisms. Topics of study include biochemistry, cell structure and function, transport mechanisms, energy transformations, metabolism, cell division, human genetics, and evolutionary trends. A strong emphasis on laboratory investigations and data analysis supports the course content.

HONORS BIOLOGY (1426)

Grade 9

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of an eighth-grade science course

For students desiring deeper knowledge of biology, this rigorous laboratory course stresses in-depth comprehension of important concepts in cellular biology and biochemistry, genetics, ecology and evolution. A strong emphasis on laboratory investigations and quantitative data analysis supports the course content. A strong math background is preferred.

CONCEPTS IN CHEMISTRY (1432)

Grade 10

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course

This course introduces students to the fundamental principles of chemistry and demonstrates how chemistry applies to everyday life and society. Topics include atomic theory, bonding, and chemical reactions. The course provides relevant problem-solving activities through the use of a laboratory-oriented approach.

CHEMISTRY (1434)

Grade 10

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course

This course deals with the major concepts and theories of chemistry. Students develop an understanding of matter in terms of composition and changes in composition, solve scientific problems logically, use and write chemical formulae, write and balance chemical equations, and use metric measurement.

HONORS CHEMISTRY (1436)

Grade 10

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course

Unifying principles are developed by means of observation and experimentation with the development of explanatory models. The first semester presents an overview of the properties of matter and chemical reactions. With this background, students are prepared to study energy effects of chemical reactions, rates of chemical reactions, and various types of equilibrium conditions in chemical reactions, including acid-base, precipitation, and oxidation-reduction. Finally, atomic theory and its application to chemical reactions and chemical properties are explored.

CONCEPTS IN PHYSICS (1440)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course and a chemistry course

This course presents physics and related physical science topics in a highly concrete, interdisciplinary manner. Fundamental principles are emphasized, using mathematics at the introductory algebraic level. The areas of matter, energy, motion, sound, light, and electricity, as well as relevant topics in physics technology are explored. Applications to everyday life are stressed throughout the course.

PHYSICS (1444)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course and a chemistry course; successful completion of an algebra 2 course is recommended

After a brief review of the mathematical concepts used in physics, this inquiry-oriented course deals with motion (velocity, acceleration, momentum), work and power, energy and its conservation, wave motions, and, if time permits, electricity and magnetism. Demonstrations and visual materials augment the many laboratory activities.

ADVANCED PLACEMENT PHYSICS I (1446)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course, a chemistry course, and an algebra 2 course

This course is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits.

CONCEPTS IN ENVIRONMENTAL SCIENCE (1452)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course and a chemistry course

Environmental science blends the disciplines of biological, physical, and earth-systems sciences into a study of the environmental problems that confront us as a global society. Hands-on activities and the qualitative analysis of real world data allow students to investigate environmental problems.

ENVIRONMENTAL SCIENCE (1454)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course and a chemistry course

Environmental science blends the disciplines of biological, physical, and earth-systems sciences into a study of the environmental problems that confront us as a global society. Environmental problems, both natural and human induced, are investigated through an integrated approach that relies on quantitative analysis of real world data.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (1455)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course and a chemistry course

This exciting course integrates concepts from biology, ecology, chemistry, and the social sciences to examine the interrelationships of the natural world. Students in the course analyze environmental problems, both natural and human made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and preventing them. The course is collaborative and inquiry-based. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Environmental Science Exam. Students must complete a summer assignment before the start of this course.

ADVANCED PLACEMENT BIOLOGY (1456)

Grades 10, 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a biology course and a chemistry course (may be taken concurrent with chemistry)

This rigorous course duplicates an introductory, college-level biology program. Emphasis is placed on scientific thinking skills and the ability to critically read, interpret, and communicate about basic biological concepts and ethical issues. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Biology Exam. Students must complete a summer assignment before the start of this course.

ADVANCED PLACEMENT CHEMISTRY (1458)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of a chemistry course

This is a second-year high school chemistry course. Topics that are studied in Honors Chemistry will be examined in greater detail. Structure and content are

typical of a first-year college general chemistry course. The work is exceptionally demanding and incorporates a strong laboratory component. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Chemistry Exam. Students must complete a summer assignment before the start of this course.

ADVANCED PLACEMENT PHYSICS II (1464)

Grades 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion or concurrent enrollment in Advanced Placement Physics 1

This course is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics, thermodynamics, electricity and magnetism; optics; and atomic nuclear physics.

ADVANCED PLACEMENT PHYSICS C: MECHANICS AND ELECTRICITY & MAGNETISM (1466)

Grade: 11, 12

Full Year: 6 Credits

Prerequisite: Department recommendation and successful completion of AP Physics 1 and concurrently enrolled in Calculus BC(1562)

Physics instruction provides a systematic treatment of all topics required by the national AP curriculum committee. The course is calculus based, emphasizes problem-solving skills, and requires high-level critical thinking. It involves much hands-on work and an exposure to computer-based labs. This program provides a solid base for college-bound students, equipping them for further study in advanced sciences, applied sciences, and engineering. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for both of the AP Physics C Exams—Mechanics and Electricity & Magnetism.

HONORS PHYSICAL GEOGRAPHY (1470)

Grades 11, 12

Full Year: 6 credits at CHS

Prerequisite: Department recommendation and successful completion of a biology course and a chemistry course

In partnership with Rutgers University, seniors may enroll in this college course and earn 3 Rutgers University credits while also earning 6 credits at Chatham High School. Physical Geography is a systematic introduction to physical processes on earth, including earth-sun relations, weather and climate, the hydrologic cycle, earth materials, and landforms. Emphasis is on interrelationships among these phenomena. This course will be taught at CHS using inquiry methods, guest speakers, and field trips. As well as receiving credits for their CHS diploma, students completing this course will receive a Rutgers University transcript. Credits may be transferrable to their college as science or social science credits. The discounted Rutgers tuition and fees for this course are the responsibility of the student.

SCIENCE ELECTIVES

PHYSICS (ALL LEVELS)

ENVIRONMENTAL SCIENCE (ALL LEVELS)

Grades 11, 12

Course may be selected if not previously completed.

ANATOMY AND PHYSIOLOGY (1477)

Grades 11, 12

Half Year: 3 credits

Prerequisite: Successful completion of a biology course and a chemistry course

This semester course is an extensive biological study that includes topics such as biochemistry, animal cell structure and differentiation, tissue complexity, and mammalian organs, and organ systems. Students learn the structure and function of individual body systems and the integration of these different systems. Students complete extensive laboratory work, including a required mammalian dissection.

EXERCISE PHYSIOLOGY (1478)

Grade: 11, 12

Half Year: 3 credits

Prerequisite: Successful completion of a biology course and a chemistry course

This course explores the physiology of exercise by investigating the effects of exercise on muscular endurance, blood flow and energy consumption in the human body. It will explore different training regimens for athletes with different fitness goals. The course will also help athletes consider the effects of nutrition, drugs and rest on their body. Students will be introduced to sports injuries and ways that health professionals evaluate and assess these injuries. Students will create their own targeted workout and training regimen over the course of the semester.

ASTRONOMY (1483)

Grades 11, 12

Half Year: 3 credits

Prerequisite: Successful completion of a biology course and a chemistry course

Astronomy gives students an opportunity to investigate answers to questions that are as old as mankind itself. As one of the oldest sciences, its roots trace back through time to prehistoric cultures. The science of astronomy explores the events and phenomena that occur beyond our own planet. By looking at real world data, students will study the stars, planets, and workings of the universe. They also will study the evidence that supports the Big Bang and the implications this theory holds for the universe's future.

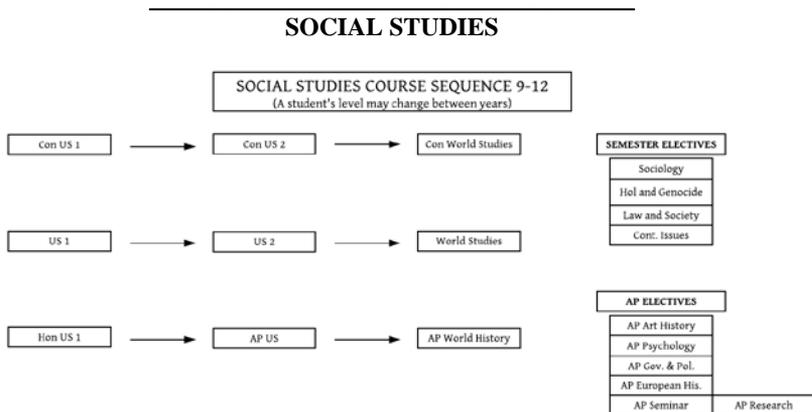
MARINE SCIENCES (1489)

Grades 11, 12

Half Year: 3 credits

Prerequisite: Successful completion of a biology course and a chemistry course

This semester course is an extensive marine biological study that includes topics such as oceanography, ocean productivity, ocean chemistry, tides, marine animal populations, climate change and animal tracking using real time data. Students learn the unique role that the ocean and its flora and fauna play in the earth's biogeochemical cycles. Students complete extensive laboratory work, research projects and field studies that are an integral part of this course.



CONCEPTS IN UNITED STATES HISTORY 1 (1222)

Grade 9

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of eighth-grade social studies

Concepts in US History 1 is a chronological survey from the pre-colonial period through the late 1800s. The course emphasizes the development of basic social studies skills to accommodate students with special academic needs. It emphasizes how the United States was influenced by its diverse culture and ethnic groups. This course meets the state graduation requirements for United States History 1.

UNITED STATES HISTORY 1 (1227)

Grade 9

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of eighth-grade social studies

Using a multi-faceted approach that includes sociological, cultural, economic, political, and diplomatic perspectives, US History I introduces students to the key concepts, movements, events, and personalities of the history of the United States from the pre-colonial period to the closing of the frontier in the late 19th century. Although the course explores history within a chronological framework, US History 1 develops information processing skills, with an emphasis on improving the ability of students to find, critically analyze, and evaluate the significance of facts and

ideas. The course also requires students to build, support, defend, and effectively communicate their own understandings of United States history. This course meets the state graduation requirements for United States History 1.

HONORS UNITED STATES HISTORY 1 (1228)

Grade 9

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of eighth-grade social studies

Honors US History 1 is a study of the socio-intellectual and political history of the United States from pre-colonial times to the late 1800s. Students are expected to complete a research/term paper. Extensive and intensive reading and writing assignments make it vital that students read above grade level and demonstrate well-developed writing skills. This course is strongly recommended for students preparing to take Advanced Placement United States History. This course meets the state graduation requirements for United States History 1.

CONCEPTS IN UNITED STATES HISTORY 2 (1232)

Grade 10

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of United States History 1

This course, the second half of the state requirement, is a survey of United States history from the late 1800s to the present. It emphasizes continued development of social studies skills to accommodate students with special academic needs. Students enrolled in this course will complete a variety of assessments including a short research project and/or paper. This course meets the state graduation requirements for United States History 2.

UNITED STATES HISTORY 2 (1234)

Grade 10

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of United States History 1

Using a multi-faceted approach that includes sociological, cultural, economic, political, and diplomatic perspectives, US History 2 requires students to investigate the key concepts, movements, events, and personalities of the history of the United States from the late 19th century through the 1980s. With an emphasis on critical thinking, interpretation, analysis, and historiography, this course provides students with the analytical skills and factual knowledge necessary to assess various interpretations of US history and construct their own understanding. This course meets the state graduation requirements for United States History 2.

ADVANCED PLACEMENT UNITED STATES HISTORY (1235)

Grade 10

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of United States History 1

This course meets the second half of the state graduation requirement in United States History. It is designed to help students develop analytical skills and provides the factual information necessary to deal critically with the problems of American history. Students learn to assess historical materials and their relevance to a given interpretive problem and to weigh the evidence and analysis presented by historical scholarship. Essay writing is emphasized, and students may be expected to complete a research/term paper or its equivalent. The program prepares students for intermediate and advanced college courses by making demands equivalent to those of a full-year, introductory college course. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP United States History Exam. This course meets the state graduation requirements for United States History II.

CONCEPTS IN WORLD STUDIES (1237)

Grade 11

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of United States History 2

Concepts in World Studies is a survey course that allows students to study the major historical developments of the past three centuries. This course emphasizes the development of basic social studies skills to accommodate students with special academic needs. This course meets the state graduation requirement for World History/Cultures.

WORLD STUDIES (1238)

Grade 11

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of United States History 2

Preparing students to engage the global challenges of the 21st century, World Studies trains students to effectively access and analyze information, design and test solutions to problems, and formulate realistic and responsible plans in response to complex global issues. Using historical inquiry of the past as a tool to develop critical-thinking skills and as a foundation to comprehend the present, this course provides students with an opportunity to thoroughly examine issues, develop their own informed perspectives, and interact with diverse sources of information and technologies. This course meets the state graduation requirements for World History/Cultures.

ADVANCED PLACEMENT WORLD HISTORY (1239)

Grade 11

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of United States History 2

Advanced Placement World History is the secondary school equivalent of an introductory college course in world history and as such, is intended for highly motivated students. The purpose of the AP World History is to develop greater understanding of the evolution of global processes and contacts in different human societies. Through exercises related to historical content from approximately 8000 b.c.e. to the present, the course highlights changes in global societies and their causes and consequences. Offering balanced global coverage, Africa, the Americas, Asia, Europe, and Oceania are represented, with coverage of European history amounting to less than 30 percent of the total course. The major themes studied include: the interaction between humans and the environment; development and interaction of cultures; state-building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP World History Exam. This course meets the state graduation requirements for World History/Cultures.

ADVANCED PLACEMENT PSYCHOLOGY (1257)

Grades 11, 12

Full Year: 5 credits

Prerequisite: Department recommendation and successful completion of United States History 2 and biology

The purpose of this full-year course is to introduce students to the scientific study of the behavior and mental processes of humans and, to a lesser extent, other animals. Students learn the major vocabulary, theories, and experiments of biopsychology, behaviorism, cognitive psychology, intelligence, development personality, stress, mental illness, social psychology, and psychological testing. They have the opportunity to examine ethical issues in research and conduct their own research projects. Those enrolled also read extensively in primary and secondary sources. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Psychology Exam.

ADVANCED PLACEMENT GOVERNMENT & POLITICS: UNITED STATES (1258)

Grades 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of U.S. History 2

The purpose of this full-year course is to give students an analytical perspective on government and politics in the United States. Students become familiar with various institutions, groups, beliefs, and ideas that constitute U.S. politics. They also become acquainted with a variety of theoretical perspectives and explanations for

various behaviors and outcomes. The major goal is to ascertain the factors and influences that have an impact upon the processes that drive the operations of government. Several themes highlight the course of study: constitutional underpinnings of the United States government, political beliefs and behaviors, development of public policy, civil rights and civil liberties, and the power of political parties, interest groups and mass media. Those enrolled also read extensively in primary and secondary sources. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP United States Government and Politics Exam.

ADVANCED PLACEMENT EUROPEAN HISTORY (1259)

Grades 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of United States History 2

This rigorous academic course furnishes a basic narrative of events and movements in European history from 1450 to the present. It prepares students for the demands of a college education by providing experience in college-level reading, writing, and responsibility for learning. Students investigate the broad themes of intellectual, cultural, and political history and appreciate how those ideas are reflected in trends of philosophy, popular literature, and the arts. As events in history can only be understood in terms of their social context, this course examines demographics and the influences of social classes and gender roles on history. The course also focuses on economic history and the role of industrialization by reviewing the development of commercial practices and changing economic structures to recognize Europe's influence on the world. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP European History Exam.

ADVANCED PLACEMENT ART HISTORY (1260)

Grades: 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation

The AP Art History course is designed to engage students at the same level as an introductory college art history survey course. The course will focus on visual critical thinking strategies and developing an understanding and knowledge of diverse historical and cultural contexts of architecture, sculpture, painting, and other media. In the course, students will examine and critically analyze major forms of artistic expression from the prehistoric era to the modern age utilizing a variety of methods and techniques. While visual analysis is the fundamental tool of the art historian, art history emphasizes the how and why works of art function in context, considering such issues as patronage, gender, ethnicity, political and social currents, and the functions and effects of these works on depicting or challenging conventional norms or mores of a society at a particular period in time. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP Psychology Exam.

ADVANCED PLACEMENT SEMINAR (1268)

Grade 11

Full Year: 5 credits

Prerequisite: Department recommendation

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

ADVANCED PLACEMENT RESEARCH (1270)

Grade 12

Full Year

Prerequisite: Department recommendation and successful completion of AP Seminar

As the culminating course of the AP Capstone program, AP Research allows students to design, plan, and implement a yearlong investigation to address a research question of individual interest. Students build upon and further develop the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information to develop, present, and defend an argument.

Students will reflect on their own skill development, while documenting their academic processes and curating the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000-5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense.

SOCIAL STUDIES SEMESTER ELECTIVES

CONTEMPORARY ISSUES & MEDIA LITERACY (1280)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation or successful completion of US 2.

Students in this course explore the various social, political, economic, and environmental challenges of the 21st Century in a national and international context to help them develop into active and informed global citizens who can successfully research and navigate digital information, think critically, reason effectively and communicate well. They will examine how news and public dialog is collected, portrayed and presented in academic, institutional, corporate and social media, and how that process affects public opinion and the understanding of issues. Students

will also develop informational literacy and reasoning skills to gather, interpret, test, and synthesize information and arguments across a broad spectrum of sources to build their own understanding, while at the same time craft potent and persuasive arguments of their own.

LAW AND SOCIETY (1282)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation or successful completion of US 2

This course offers students the opportunity to learn about the structure and operation of the American legal system. Examining civil and criminal law, students gain an understanding of how the law is interpreted, applied, and enforced. Students also explore landmark U.S. Supreme Court cases that have defined our constitutional rights over the last two centuries. Through discussion, research, and mock trials, students come to understand the law in the context of everyday life and larger contemporary issues that shape our culture.

HOLOCAUST AND GENOCIDE (1284)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation or successful completion of US 2

Students in this course examine the nature of human behavior, views of prejudice, and the tragedy of genocide. By studying events such as the Nazi Holocaust, Cambodian Genocide, Armenian Massacre, Bosnian Crisis, and the American Indian's devastation, students come to understand causes of such catastrophes, their impact on history, and how they might be avoided. The course stresses student involvement and interaction.

SOCIOLOGY (1286)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation or successful completion of US 2

Sociology is the systematic study of social behavior and human groups. In this course, students focus primarily on the influence of social relationships on people's attitudes and behavior and on how societies are established and change over time. They explore such topics as families, the workplace, gangs and social deviants, social stratification and inequities, and social movements. Students are expected to engage in discussions and debates and to conduct their own sociological research. Participation, interaction, and writing are heavily emphasized.

21st-CENTURY LIFE AND CAREERS

FINANCIAL, ECONOMIC, BUSINESS, AND ENTREPRENEURIAL LITERACY

FINANCIAL LITERACY (2220)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

This course introduces students to a variety of money management concepts. Students learn practical skills that enhance their personal financial goals and interests. The course includes units on budgeting and money management, career planning, income and taxation, financial responsibility and decision making, protecting assets, and various types of insurance, saving and investing, and credit and debt management. Students work on a variety of individual and group assignments that raise their awareness and competency in the use of credit/debit cards, checking accounts, identity theft and predatory lending, budgeting expenses, the influence of advertising, and etiquette in the workplace. Major life events such as buying or leasing a car, renting an apartment, buying a home, and saving for retirement are also covered.

This course meets the state graduation requirement for financial, economic, business, and entrepreneurial literacy.

BUSINESS

DIGITAL LITERACY (2221)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

Digital Literacy is a one-semester course that develops effective skills, habits, practices and understandings to efficiently and appropriately navigate the increasingly-connected digital lifestyle of the 21st century. While mastering transmedia navigation and powerful research techniques to search for, assess and synthesize information, students will be exposed to a broad spectrum of web-based content creation and data visualization tools to share and present content in compelling formats. Students will also explore digital productivity tools, scheduling, multi-tasking and attention management strategies while applying them in real-time to their current schoolwork and extracurricular activities. Immersing students in collaborative Web 2.0 technologies and environments, *Digital Literacy* focuses on the development of a positive web presence and successful interaction within diverse academic, professional and social communities. Students will explore ethical considerations of digital citizenship while better understanding the implications technology has on privacy.

BUSINESS PRINCIPLES (2231)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

This course is designed to give students an introduction to the world of business. The course includes units on the profit motive, management decision-making and

business ethics, financial-statement analysis, cost-benefit analysis, the marketing mix, international business dynamics, and corporate law and structure. Students complete a variety of individual and team projects that include opening a franchise, developing a new product or service, researching global expansion plans, interpreting business news, and analyzing movies and documentaries. The Wall Street Journal Classroom Edition and other web-based resources are used to enhance classroom instruction. Students may also participate in a National Stock Market Game as a means for analyzing companies and industries.

MARKETING STRATEGY ESSENTIALS (2233)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

This course enables students to acquire a broad and comprehensive understanding of the principles of Marketing. Given Chatham's proximity to the global hub of New York City, students are well-situated to witness the influence of Marketing in the world around them. Marketing plays a vital role in the business world, and those with an understanding of the basic tenets of Marketing have a clear competitive advantage. Specific content covered in this course includes: Market Research, Branding, Product planning & development, Pricing, Economics, Promotion, Distribution, and Selling. Using course content as an engaging backdrop, students will develop communication skills, self-confidence, & general business acumen.

ENTREPRENEURSHIP (2235)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Business Principles, Investments/Portfolio Management, Marketing Strategy Essentials, or AP Economics

Entrepreneurship is a one-semester course that focuses on the step-by-step process of forming a business. Students initially create an idea for a business, conduct secondary market research, and develop preliminary marketing and financial plans. The balance of the semester is devoted to writing a comprehensive business plan, which includes sections on product development and marketing, obtaining financing and insurance, hiring and managing employees, record keeping and accounting, and profit projections. Students prepare a final report and PowerPoint presentation intended for an audience of potential investors and lenders. The course also includes units on leadership and profiles of successful entrepreneurs.

INVESTMENTS/PORTFOLIO MANAGEMENT (2238)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisites: AP Economics, Business Principles or Financial Literacy and Teacher Recommendation

This course offers an introduction to investments, including investment analysis, portfolio management, and capital markets. Designed to provide the basic concepts and principles of investing, the course examines investment policies, types of

securities, factors that influence price changes, timing purchases/sales, preparing investment programs to meet objectives, investment risk and return, and portfolio balancing. Instruction also includes an overview of the securities market and its behavior, including sources of information about the various instruments traded, procedure of trades, and the relevant mechanics and techniques of the market.

ADVANCED PLACEMENT ECONOMICS (2240)

Grades 10, 11, 12

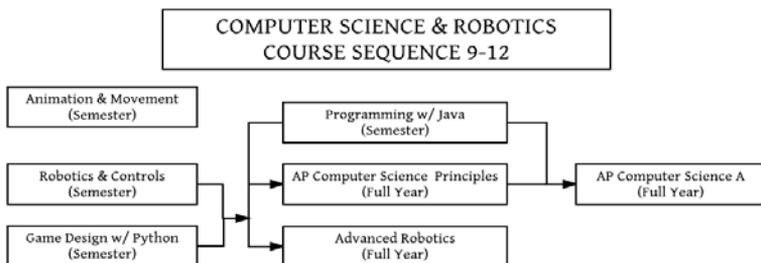
Full Year: 5 Credits

Prerequisite: Social Studies or Business department recommendation and completion of Algebra 2

Advanced Placement Economics provides students with a thorough understanding of the principles and applications of microeconomics and macroeconomics. This rigorous, college-level course, prepares students for both the AP Microeconomics exam and AP Macroeconomics exam. The purpose of microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. The purpose of macroeconomics is to give students a greater understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students’ familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Advanced Placement Economics students will be challenged to master economic theory in order to analyze and evaluate current economic issues using supply and demand analysis. The curriculum has been approved by the College Board’s Advanced Placement Program and prepares students for the AP Micro and Macro Economics exams.

* This course meets the state graduation requirement for financial, economic, business, and entrepreneurial literacy.

COMPUTER SCIENCE & ROBOTICS



INTRODUCTION TO COMPUTER SCIENCE, PART 2 (2602)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Successful completion of Algebra 1 and Introduction to Computer Science, Part 1

This course provides a continuation of Introduction to Computer Science, Part 1 and is a prerequisite for Advanced Placement Computer Science AB. The course emphasizes the concept of object-oriented programming using the Java language. It continues the coverage of general material on the discipline of computer science. Topics include computing devices (hardware and software), problem solving, recursion, introduction to the software development process, structured programming, top-down design, object-oriented programming techniques, and programming language features. These include identifiers, data types, input/output commands, control flow statements, classes, arrays, aggregation, inheritance, polymorphism, applets, and user-defined methods.

ANIMATION AND MOVEMENT (2603)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

This course provides an introduction to the field of computer animation programming through the utilization of humanoid robots and block based programming environments. The course emphasizes problem solving in a real-world context and computational thinking utilizing both gaming and robotics platforms. This class is an alternative for those students who have an interest in computer science but are not interested in the Advanced Placement track.

GAME DESIGN WITH PYTHON (2604)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

Python provides an introduction to the field of computer science and can be used as a prerequisite for AP Computer Science Principles. The basics of imperative programming will be covered as well as general problem solving principles. We will review the basics of the language, discuss core programming topics, and then spend time looking at some specialized uses, such as video game creation. It also covers general material on the discipline of computer science. Topics include problem solving, the software development process, structured programming, top-down design, and programming language features. These features include identifiers, data types, input/output commands, control flow statements, classes, and user-defined methods.

ROBOTICS & CONTROLS (2605)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

In this course, students will explore the field of robotics and control systems through a variety of hands-on, experiential learning experiences. Students will work individually and in teams to design, build, program, and test digital controls and robotics systems, as well as microprocessors and electromechanical components, such as sensors, actuators, motors, and servos. Students will utilize the Engineering Design Process to design and build real-world robotic systems that solve problems present in our day-to-day lives.

PROGRAMMING WITH JAVA (2606)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Game Design with Python, Robotics & Controls, or previous programming experience (with departmental recommendation).

Programming with Java provides an introduction to the Java programming language and can be used as a prerequisite for AP Computer Science A or AP Computer Science Principles. This course will cover the basics of the Java programming language as well as covers general material on the discipline of computer science. Topics include computing devices (hardware and software), the software development process, structured programming, top-down design and programming language features. These features include identifiers, data types, input/output commands, control flow statements, classes, and user-defined methods.

ADVANCED ROBOTICS (2607)

Grades 10, 11, 12

Full Year: 5.0 Credits

Prerequisite: **Annual department recommendation and successful completion of Robotics & Controls, Game Design, or Programming with Java**

This course will bring the FIRST Technology Challenge (FTC) to life inside the classroom. Students will design and build robotic devices that will compete at local and state competitions. The use of CADD software, computer programming, and construction materials such as Tetrix, will be used to help students explore various design options to create custom robots to complete in a variety of tasks and obstacles. Students will participate during class time and designated hours outside of class to prepare to compete in highly competitive contests against other high school teams. This course may be taken more than once for credit pending an updated, annual teacher recommendation.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES (2610)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: **Department recommendation and successful completion of CHS Computer Science course (excluding A&M) or previous programming experience or department recommendation and concurrent enrollment in Precalculus**

This course is recommended for students interested in exploring the profound ways computing has changed the world. The objective is to explore how computing has

opened up wonderful new ways for people to connect, design, research, play, create, and express themselves. Students will develop an understanding of the fundamental concepts of computing, its breadth of application and its potential for transforming the world we live in. Students will also be introduced to programming as a means by which to develop problem solving skills. This course satisfies the 21st century life and careers/career-technical education graduation requirement.

ADVANCED PLACEMENT COMPUTER SCIENCE A (2612)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation, successful completion of Algebra 1, and Programming with Java, Introduction to Computer Science 2, or Advanced Placement Computer Science Principles

The work in this course is devoted to programming in the language of Java, and is presented at a typical first-year undergraduate level. The requirements are exceptionally demanding with emphasis on programming, methodology, algorithms, classes, and stream properties. Course content follows the College Board's Advanced Placement curriculum for the AP test in Computer Science A.

ENGINEERING & ARCHITECTURAL DESIGN

Please note: All technology courses teach and require students to use computer skills, including the production of graphically enhanced documents and projects.

INTRODUCTION TO DESIGN & INNOVATION (2620)

Formerly CADD 1 and Design in Technology

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

The Introduction to Design & Innovation course provides students with opportunities to apply knowledge and skills through hands-on, problem-solving learning experiences. Students apply the engineering design process and design principles while developing skills in the following areas: hand sketching, engineering and technical drawings, Computer Aided Drawing/Design (CAD), materials processing, and the design and fabrication of working prototypes and models. Students engage in an in-depth study and application of technological processes to solve real-world problems and challenges while learning how to use 2D CAD software, such as AutoCAD, which is used in the engineering and design industries. Furthermore, the course also develops students' ability to present their designs for testing, feedback and critique.

ARCHITECTURAL DESIGN (2624)

Formerly Fundamentals of Architecture

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: None for 2018-2019

Introduction to Design & Innovation (beginning 2019-2020)

The Architectural Design course engages students in an intensive study of architecture, its relationship to design, and the implementation of the Design Process in the design and construction of residential and commercial structures. Students are challenged to develop and design architectural drawings, floorplans, and models following industry standards. Students will learn to use architectural CAD software, such as AutoDesk Revit and AutoCAD, which are both used in the architectural and design industries. Students will be able to experience what it is like to be an architect. Main topics include, residential design considerations, floorplans and working in scale, CAD modeling and architectural drawings, and architectural modeling techniques.

3D ENGINEERING DESIGN (2626)

Formerly CADD 2

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Introduction to Design & Innovation or CADD 1

The 3D Engineering Design course focuses on the application of the Engineering Design Process and design thinking framework through 3-Dimensional (3D) Computer Aided Drawing/Design (CAD). Students are challenged to develop and design solutions to problems present in our world while developing their ability to create and communicate ideas and designs by taking an idea from concept to product. Students will learn how to use 3D CAD software, such as AutoDesk Inventor, as well as modeling/animation/rendering software, such as 3D Studio Max, which are both used in the engineering and design industries. This class requires the application of knowledge from various content areas, such as mathematics, design & technology, and science. Furthermore, it provides students with the opportunity to conceive, design, model and create working prototypes for testing. It also develops their ability to express their creative thoughts to others for feedback and critique. Main topics will include 3D design & modeling, assemblies, rendering, rapid prototyping, and portfolio development.

DESIGN STUDIO (2628)

Grade: 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation and successful completion of Architectural Fundamentals or CADD II

Design Studio gives students the opportunity to research a problem of personal interest while gaining a deeper understanding of the technological design process. After identifying their problem, students will meet in conference with the instructor and work through a design loop toward a solution. As students work through the design process they will generate a portfolio they can use to pursue their educational or professional goals. This course may be taken more than once for credit.

VIDEO & MULTIMEDIA PRODUCTION

DIGITAL MEDIA DESIGN (2630)

Grades 9, 10, 11, 12
Semester: 2.5 Credits
Prerequisite: None

The Digital Media Design course focuses on the fundamentals of digital media communication and production as well as the important role that digital communication plays in our technologically driven society. Through hands-on learning experiences, students will learn how to think creatively, as well as manipulate and utilize various digital mediums to design and communicate while developing skills in the areas of photo editing and manipulation, audio mixing and editing, video creation and editing, and animation design. A focus will be on the integration of design thinking principles, drawing upon students' logic, imagination, intuition, and creativity to design and create digital media products that meet the needs and wants of the consumer or client.

VIDEO PRODUCTION (2631)

Grades 10, 11, 12
Half Year: 2.5 Credits
Prerequisite: None

This course is an exploration into the art and business of video production. Students participate in hands-on projects using state-of-the-art cameras, lighting, and editing equipment. Activities include idea generation, script writing, storyboard development, video projects, directing, lighting, and set development. Students participate in various contests, shows, and workshops in house and on location. This course has a fieldwork component, which may be completed by the students outside of the scheduled class timeslot. Students are responsible for completing all of the fieldwork in order to successfully meet course requirements. Students gain a working knowledge in video-editing software, which may benefit them in completing alternate assessments in the future

TV PRODUCTION (2634)

Grades 11, 12
Full year: 5 Credits
Prerequisite: Department recommendation and successful completion of Video Production

This course builds upon the foundation set by video production. Students study the art of live TV, participating in live shoots in the TV studio, on location, and through collaborative projects with other departments in the school. Students learn each of the positions incorporated in a typical event, including director, producer, and lighting techs, to name a few. Students produce work for the video yearbook, the school district's cable channel, and independent projects. This course has a fieldwork portion, which may be completed by the students outside of the scheduled class timeslot. Students are responsible for completing all of the fieldwork in order

to successfully meet course requirements. Students gain a working knowledge in video-editing software that may benefit them in completing alternate assessments in other classes.

SHORT FILMS (2637)

Grades 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation and successful completion of TV Production

This course provides students the opportunity to write, produce, direct and edit their own short film. Students will prepare to create their short film through screenings, lectures, projects and discussions. Although each student will be creating their own project, the course will include a mix of group and individual assignments. Students will participate collectively in brainstorming activities to develop a story as well as peer review sessions. The course will allow students to work on a film independently in a collaborative and creative environment. Students will continue to develop skills in Adobe Premier Pro and will be introduced to Adobe After Effects.

FAMILY AND CONSUMER SCIENCE

CULINARY ARTS AND NUTRITION 1 (2311)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

This course focuses on the fundamentals of food preparation, nutrition, meal planning, and consumer education. In the foods laboratory, students actively experience a variety of practical cooking skills and techniques. Consumer skills that assist students in making wise food choices based on nutritional knowledge is stressed. This course includes an exploration of kitchen basics, food safety and sanitation, nutrition and wellness, food science, food labeling, digestion, and meal planning. Enrollment may be limited due to space availability.

CULINARY ARTS AND NUTRITION 2 (2313)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Culinary Arts and Nutrition 1

Students in this course build upon the fundamentals of Culinary Arts and Nutrition 1 to develop more advanced skills and use specialized techniques in food preparation. Artistic food presentation and food planning for specialty entertaining is included. Meal preparation is based on a variety of regional and world cuisines. This course includes current events and hot topics in nutrition and health, consumerism, special diets, food production and the food industry. Nutritional issues relating to health, weight, and athletics is also covered. Enrollment may be limited due to space availability.

EARLY CHILDHOOD DEVELOPMENT (2345)

Grades 10, 11, 12

Full Year: 2.5 Credits

Prerequisite: None

This course provides an introduction to early childhood behavior and education. Through a balance of theory and practice, students learn how to design curriculum and lesson plans for children of various ages. To complement their coursework and sharpen their critical and creative thinking, students gain real-world experience working with a kindergarten enrichment program that offers young children age-appropriate activities in areas such as reading, math, science, art, and cooking. By implementing their lesson plans in this school setting, students come to see the relationship between theoretical and practical knowledge and gain valuable experience interacting with children.

VISUAL AND PERFORMING ARTS

ART

EXPERIENCING FINE ART (2111)

Grade Level: 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

Experiencing Fine Art provides students with the knowledge of basic art principles and core concepts at the secondary level. Students will experience many forms of art making, techniques, and materials including (but not limited to) drawing, painting, sculpture, graphic design, multimedia, and collaborative concepts. Students are evaluated on their process of artistic creation in addition to their completed products. In this format, students are encouraged to take creative risks and challenge their artistic comfort zones. This course is a required prior to enrollment in additional art electives.

PAINTING (2113)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Drawing

This course provides an introduction to the fundamentals of painting. Painting media may include watercolor, acrylics, and tempera. Ink is used in addition to other painting-related media. Beginning and more-advanced students may take this course. Instruction and demonstration precede each painting activity. Specific subjects are assigned for each medium and technique. Design and compositional concepts as well as art criticism and history are part of instruction. Creativity, craftsmanship, personal effort, critical thinking, sketchbooks, and monthly homework assignments are all included in the grading process. In order to succeed in this class, students must meet the required criteria given for all projects, be prepared to question and critique their own work, and offer feedback on the work of other artists. Each assignment should be approached with an open mind and positive attitude.

DRAWING (2115)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Experiencing Fine Art (previously Introduction to Studio Art)

This course provides an overview of drawing, commercial art, figurative art, design, and studio arts. The course offers students the opportunity to broaden their understanding of drawing as an art form by introducing a variety of methods, techniques, mediums, and subject matter. Assignments explore aesthetics, art history, and art criticism, as well as the production of art. Instruction is based upon the components of arts education, including development of visual perception and illusionistic control, creative expression in original art works, and development of aesthetic critical judgment in the visual arts.

PRINTMAKING (2117)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Drawing

Printmaking explores a variety of materials and techniques in the making of single prints, printed editions, and artworks that incorporate multiple images. This course is recommended for students that enjoy image making and designing, as well as those who wish to learn about unique art techniques not explored in previous courses. Upon completing the course, students are familiar with the following techniques: silkscreen, collagraph, linocut, woodcut, etching, mono-print, multi-media and experimental printmaking, which combine computer-assisted image making and digital photography with more traditional printmaking techniques. Students learn how to print single- and multiple-plate images, create an edition, and mat and exhibit prints. A number of projects explore the possibilities and cultural significance of prints and printmaking. A survey of the work of traditional and contemporary printmakers and basic guidelines for creating well-designed images create a solid foundation upon which students can develop new techniques and ideas.

GRAPHIC DESIGN (2123)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Experiencing Fine Art (previously Introduction to Studio Art)

In this course, students learn the fundamentals of graphic design and gain experience using Adobe Photoshop and Illustrator. Projects provide students with opportunities to work with businesses in the Chatham community, enter design contests, or serve the school with its design needs. These real-world design challenges offer students the opportunities to apply their skills in meaningful contexts, work for real purposes, and reach wider audiences.

SCULPTURE (2133)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Experiencing Fine Art (previously Introduction to Studio Art)

Additive and subtractive sculpture techniques in multiple media are taught in this course. Using wire, paper, tape, small-found components, and plaster, students learn the techniques of additive sculpture and delve into the third dimension. Subtractive sculptures may be created using traditional and alternative techniques and media such as wood, stone, soap, wax, clay, and plaster. Upon mastery of the basic techniques, students explore these ideas in greater depth and begin work on site-specific installations, thematic series, and found-object and larger-scale sculptures.

CERAMICS (2135)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Experiencing Fine Art (previously Introduction to Studio Art)

In this course, students learn techniques of hand-built and wheel-thrown pottery and explore the different aesthetic finishing methods of glazing, staining, and painting. Typical projects invite students to create functional vessels, masks, and various decorative pieces. Research about contemporary artists provides inspiration for concepts, subject matter, and materials, which students use to create their own original pieces.

METAL AND FIBER ARTS (2139)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Experiencing Fine Art (previously Introduction to Studio Art)

This course exposes students to unique art materials. Through the creation of jewelry and small objects, students are introduced to the metal-working techniques of cutting with a jeweler's saw, riveting, etching, enameling on metal, engraving, and more. Students also gain experience with the fiber arts, including paper crafts and textiles. Projects include silk screening on fabric, leather-working, creative book-binding, and developing wearable art.

ADVANCED PLACEMENT STUDIO ART

Please note: Course numbers for the two year long components of this program follow the overall course descriptions immediately below.

AP Art is a two-year program that requires the production of an extensive portfolio, with emphasis on quality, breadth, and an area of concentration. Chatham High School offers two AP Studio Art programs, allowing students to select either a Drawing or 3D emphasis. The curricula have been approved by the College Board's Advanced Placement Program and prepare students for the AP Studio Art: Drawing portfolio or the AP Studio Art: 3D portfolio submissions. Admission to the AP program is based on demonstrated interest, ability, and department recommendation. Students should have already taken the prerequisite courses, as indicated under the specific course strand, below. Because of the strenuous requirements of the AP curriculum, students interested in taking this program begin their portfolio in their junior year. In unique cases, with teacher recommendation, students may begin the portfolio as seniors.

HONORS PRE-AP 2D STUDIO ART (2148)

Grade 11

Full Year: 5 Credits

Prerequisite: Experiencing Fine Art (previously Introduction to Studio Art) (2111), Painting, and department recommendation based on portfolio review.

ADVANCED PLACEMENT 2D STUDIO ART (2150)

Grade 12

Full Year: 5 Credits

Prerequisite: Pre-AP 2D Studio Art and department recommendation based on portfolio review

HONORS PRE-AP 3D STUDIO ART (2158)

Grades 11-12

Full Year: 5 Credits

Prerequisites: Experiencing Fine Art (previously Introduction to Studio Art) (2111), Ceramics (2135), and EITHER Sculpture (2133) OR Metal and Fiber Arts (2139). Department recommendation may be considered in lieu of 2133/2139 based on Ceramics portfolio.

ADVANCED PLACEMENT 3D STUDIO ART (2160)

Grade 12

Full Year: 5 Credits

Prerequisite: Pre-AP 3D Studio Art and department recommendation based on portfolio review.

DANCE

DANCE I (2170)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

Dance I introduces students to the basics of Ballet, Modern, Jazz, Hip Hop, Improvisational, Multicultural, and Social dance forms, and is offered to any student interested in pursuing dance study; no audition is required for this course. In addition to the performance component of the course, students will also gain knowledge and aesthetic awareness of Dance in its historical, cultural, and social contexts and develop an understanding of the choreographic process through in-class movement assignments. This course will provide students with the skillset to thoughtfully observe and analyze dance through media/live performance, and the realization that Dance contributes to a healthy lifestyle, fosters self-confidence, develops social/collaborative skills, and fosters creativity.

DANCE II (2172)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Successful completion of Dance I (formerly called *Introduction to Dance*) and/or department recommendation

Dance II builds upon the knowledge and technique gained in Dance I (formerly called *Introduction to Dance*). Students will continue to enhance physical mastery of dance skills, understand the historical significance of dance pioneers through the embodiment of various dance techniques, create original choreography, and perform new dance works. This course utilizes demonstration, discussion, small and large group activities, and performance as methods of learning.

MUSIC

CONCERT CHOIR (2426)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: None

Concert Choir is open to any student who has an interest in singing. No formal audition is required. The course covers standard sacred and secular repertoire; advanced choral literature; and popular, patriotic, and contemporary works. Voice building and vocal technique are taught through the study of breath control, vocal production, diction, diatonic/chromatic scales, and sight singing/ear training. Students may be considered to audition for Regional and All-State Chorus.

Students must participate in all scheduled performances in order to earn maximum credit. This class may be repeated for credit.

CHATHAM VOICES (2436/2437)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: A treble voice, 1 year of vocal ensemble experience at the high school level, plus satisfactory audition or department recommendation

Primarily an acapella ensemble, this chorus allows the experienced treble singer to perform in a small ensemble. Students recommended for this ensemble will study and prepare advanced choral literature of many styles including sacred, secular, patriotic, pop, barbershop, and vocal jazz. Students also may have opportunities to prepare and perform solo/small ensemble pieces. Members are encouraged to pursue opportunities in Region and All-State Choral ensembles.

Students must participate in all scheduled performances in order to earn maximum credit. This class may be repeated for credit.

SELECT CHOIR (2450/2452)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: One year of vocal ensemble experience at the high school level, plus satisfactory audition or department recommendation

Primarily an acapella ensemble, this course allows the advanced singer to perform in a small ensemble. Students study and prepare advanced choral literature of many styles, including sacred, secular, patriotic, and vocal jazz. Students also have opportunities for small group ensemble work. Members of the Select Choir are strongly encouraged to pursue opportunities in Regional and All-State Choral ensembles.

Students must participate in all scheduled performances in order to earn maximum credit. This class may be repeated for credit.

SYMPHONIC BAND (2462)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: High school level proficiency on a band instrument

Symphonic Band allows the instrumentalist to perform in an ensemble of 50-60 members. Students study and examine various levels of band music including standard repertoire, pop, and contemporary literature. The ensemble focuses on instrumental technique, listening and critiquing, sight-reading, and scale development. Students who audition for Area, Region and All-State Bands are selected from participants in this course.

To earn maximum credit, students must participate in all scheduled performances. This class may be repeated for credit.

WIND ENSEMBLE (2464/2465)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and high school level proficiency on a band instrument

Wind Ensemble allows advanced instrumentalists to perform in an ensemble of 45-50 members. Students study and examine advanced music literature, which includes classical and standard repertoire from all eras, including 20th century works and orchestral transcriptions. The ensemble focuses on advanced instrumental technique, listening and critiquing, musical form, score analysis, rehearsal, and conducting techniques. It emphasizes performance. Senior members write and compose original or transcribed music for the band idiom. Students also have the opportunity for small ensemble work. Selected wind and percussion students may also perform as part of the orchestra as needed. Students who audition for Area, Region, and All-State Bands are selected from participants in this course.

To earn maximum credit, students must participate in all scheduled performances. This class may be repeated for credit.

ORCHESTRA (2466)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: High school level proficiency on a bowed stringed instrument

This course is performance based and includes students who play the violin, viola, cello, or double bass. Students develop their technical skills and musicianship through the study of a wide range of new and established string orchestra repertoire from the 1600s to the present day. Musical styles explored include Baroque, Classical, Romantic, 20th century, Contemporary, Popular, Folk, and Jazz. The ensemble focuses on many aspects of instrumental technique, including scales, left hand shifting, and bowing styles. Sight-reading and listening skills are emphasized. Enrichment activities are provided for students including CHS Pops Orchestra, small chamber ensembles such as quartets or trios, and the Pit Orchestra for the CHS musical. Students who audition for Region and All-State Orchestras are selected from participants in this course. Orchestra students also may have the opportunity, if scheduling permits, to collaborate with Symphonic Band or Wind Ensemble students to perform music from the symphony orchestra repertoire. In order to earn maximum credit, students must participate in all scheduled performances. This class may be repeated for credit.

CHAMBER ORCHESTRA (2470/2472)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: One year of experience in Orchestra (2466) at Chatham High School, plus satisfactory audition or department recommendation

Chamber Orchestra allows advanced students of string instruments (violin, viola, cello, or double bass) to perform in an ensemble of 20-26 members. Students study and perform string orchestra repertoire from the 1600s to the present day, covering a wide range of musical styles. The ensemble focuses on advanced instrumental technique and musicianship skills such as listening, critical analysis, study of the musical score, and efficient rehearsal techniques. Enrichment activities to develop leadership and performance skills are provided for students, including CHS Pops Orchestra, small chamber ensembles such as quartets or trios, and the Pit Orchestra for the CHS musical. Students who audition for Region and All-State Orchestras are selected from participants in this course. If scheduling permits, Chamber Orchestra students may have the opportunity to collaborate with Symphonic Band/Wind Ensemble students to perform music from the symphony orchestra repertoire

In order to earn maximum credit, students must participate in all scheduled performances. This class may be repeated for credit.

HONORS MUSIC PROGRAM

Students in grades 11 and 12 may apply and audition to elect the following classes for weighted credit: Wind Ensemble, Select Choir, Chatham Voices, and Chamber Orchestra. Students in grades 11 and 12 who are full-time accompanists for Concert Choir and Choraliars are also eligible for honors credit. The application process must be completed by May of the preceding year. Students should see a music department faculty member for application, audition, and additional course requirements.

HONORS CHORAL MUSICAL ACCOMPANIMENT (2444) See above

GENERAL MUSIC

PIANO LAB (2471)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

This course affords students with limited or no background in music a “hands on” practical study of the digital piano, using the CHS MIDI (Musical Instrument Digital Interface) piano lab. Reading and interpreting standard music notation are explored at various levels. The course focuses on individual playing and includes private evaluation of student class projects. This self-paced course may be repeated for credit, space permitting.

MUSIC THEORY/TECHNOLOGY (2473)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Basic piano skills, proficiency in reading music, and teacher recommendation

This course introduces students to MIDI (Musical Instrument Digital Interface) technology. Students explore the fundamentals of music through the study of scales, key signatures, chord progressions, and melodic/harmonic form. Ear training, music dictation, and basic composition skills are part of the coursework designed to enhance student musicianship. Also included are individual projects in composing, processing, and printing, all through the use of MIDI computer software in the CHS multi-level keyboard lab.

THEATRE

THEATRE ARTS 1 (2500)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: None

This course is designed to introduce students to the vast world of Theater. The main focus of Theater Arts I is building confidence through the acting process and becoming aware of each student’s physical, emotional, and vocal expressions. The students explore self-expression through characters in participatory exercises, theater games, improvisations, movement, vocal work and scene performance. Students also become familiar with the basics of technical theater by learning stage geography, common theater terminology, and the process of mounting a production.

THEATRE ARTS 2 (2501)

Grades 9, 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Theatre Arts 1 or teacher recommendation

Theater Arts II will build upon the foundational skills established in Theater I, focusing on development of the acting process and script analysis as it pertains to the actor. In order to fully understand and develop believable characters, students examine scene elements and analyze characters. Students will have greater social and global awareness by studying and performing classical texts and characters. Students will further explore character development through intensive monologue work using Stanislavski's methods of acting. Finally, students will understand the differences between acting on stage and acting for the camera.

THEATRE ARTS STUDIO (2503)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Theatre Arts 1 and 2 or teacher recommendation

The Theatre Arts Studio class is designed for serious theatre students who are looking to deepen their understanding of the acting process and explore new forms of characterization and theatre performance. The units in this course are designed for individuals who are focused and willing to be active participants. Whether the area of focus is acting, directing, design, dramatic writing, or technical theatre, Theatre Arts Studio allows students to explore their interests at a deeper personal level. Several workshops and projects will be implemented throughout the semester. Examples include performance of a full-length or one-act play, directing a scene or play, executing design, puppetry, mask work, and advanced stage combat.

MUSICAL THEATRE (2515)

Grades 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Theatre Arts 1

Corequisite: Concurrent enrollment in Concert Choir, Select Choir, or Voices

The Musical Theatre course is designed to offer students with demonstrated abilities and interest in the performing arts the opportunity to combine Theatre and Vocal Music in an academic environment. Through research and class activities, students will become familiar with the history and components of musical theatre. Building upon skills learned in both Theatre I and Choral Music, students will research, choreograph, rehearse, and perform several solo, partner, and group scenes/musical excerpts from various classical and contemporary musicals. In order to fully understand a character's relationship to the spoken and sung script, scene and character analysis will be studied. Students will also rehearse audition strategies by preparing a mock audition. This course will culminate in a musical theatre cabaret performance night.

SHAKESPEARE'S DRAMA (2525)

Grades 10, 11, 12

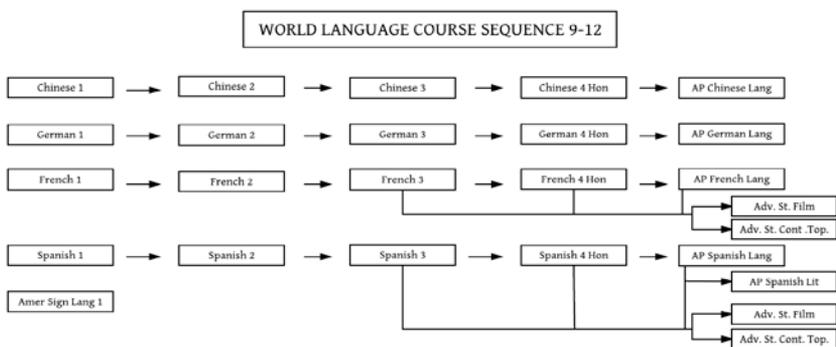
Half Year: 2.5 Credits

Prerequisite: English 9

This theatre course is based on the belief that the best way to understand and to experience Shakespeare's plays is to perform them. By approaching Shakespeare

from an actor’s point of view, students obtain a deeper understanding of his characters, themes, and, especially, his language. Students approach scenes from a number of Shakespeare’s plays, both comedic and tragic, using improvisations, games, and a variety of performance-based activities. By exploring the meaning, psychology, and poetry of Shakespeare’s characters through performance, students discover the power and fun in Shakespeare’s language. Several plays are studied in this course, but there is a particular focus on Twelfth Night. Some classes may participate in the annual Shakespeare festival, Shakespeare, sponsored jointly by the Shakespeare Theatre of NJ and the Folger Shakespeare Library. After completing this course, students find the works of Shakespeare more accessible and feel comfortable tackling complex classical characters.

WORLD LANGUAGES



AMERICAN SIGN LANGUAGE 1 (1370)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: None

American Sign Language (ASL) 1 is a visual-gestural language composed of movements of the hands, arms, face, head and body. It has a structure different to that of English; oral communication is not used. ASL 1’s coursework will cover basic communication skills in the target language and will prepare students to share information as well as cultural aspects when communicating with a Deaf or hard-of-hearing person. Class participation is an integral part of this course. Successful completion of this course will prepare students with the skills necessary for the ongoing study of American Sign Language.

CHINESE 1 (1361)

GERMAN 1 (1311)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: None

This course is designed for true beginning students or for those who have experienced little previous success in the study of a world language. Reading,

FRENCH 1 (1341)

SPANISH 1 (1301)

writing dialogues, working with language tapes, and participating in oral drills and classroom discussions enable students to carry on elementary conversations and write basic compositions, correspondence, and notes. Technology is integrated with content in every thematic unit of study. Authentic videos, audio, and electronic media are used, often in connection with the language laboratory, to facilitate the development of communication skills. These materials also provide insight into the history, geography, and practices of target cultures. Students are expected to use the target language in all appropriate situations in the classroom. Student enrollment will affect the offering of all introductory-level language classes.

CHINESE 2 (1362)

GERMAN 2 (1312)

Grades 9, 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of level 1

FRENCH 2 (1342)

SPANISH 2 (1302)

The level 2 courses continue to stress the skills of language interpretation and production and aim to heighten cultural awareness through literature, media, and authentic experiences. All modes of communication (interpretive, interpersonal and presentational) are addressed in the target language. Technology is integrated with content in every thematic unit of study. Grammar study is more formalized than it is in level 1. Reading assignments increase comprehension and stimulate discussion. Compositions, oral participation, and presentations give students opportunities to express themselves in everyday situations and to discuss topics that interest them in relation to various themes (i.e. global challenges, science and technology, contemporary life, personal and public identities, the family and the community and beauty and aesthetics). In addition to the communicative tasks they perform in the language laboratory, students are expected to use the target language in all appropriate classroom situations.

CHINESE 3 (1363)

GERMAN 3 (1313)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of level 2

FRENCH 3 (1343)

SPANISH 3 (1303)

Through frequent class discussions, oral presentations, and communicative tasks undertaken in the language lab, students improve their speaking abilities and listening comprehension skills. Technology is integrated with content in every thematic unit of study. The use of authentic video and audio resources and the reading of novels, short stories, historical writings, biographical portraits, and authentic journalism seek to further develop the language interpretation abilities of students. Writing skills are emphasized through the study of advanced grammar and the writing of compositions on a variety of everyday topics and real-life situations surrounding various themes (i.e. global challenges, science and technology, contemporary life, personal and public identities, the family and the community and beauty and aesthetics). Ongoing presentational communication, increased inferential interpretation, as well as spontaneity and negotiation of meaning in interpersonal

communication are addressed to continue to gain proficiency. Students are expected to use the target language in all appropriate situations.

CHINESE 4 Honors (1364)

FRENCH 4 Honors (1344)

GERMAN 4 Honors (1314)

SPANISH 4 Honors (1304)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of Level 3

These honors level courses are designed to further individual development of the essential communication skills that lead to accurate and fluent use of the language. Students will increase their knowledge of the finer points of expression through the study of vocabulary, including idioms and cultural nuances. Students will read and discuss short stories, novels, poetry and selections from contemporary articles on topics of cultural interest. Advanced grammar will be studied in order to facilitate accuracy of comprehension and self-expression. Technology is integrated with content in every thematic unit of study. Extemporaneous discussion, as well as writing skills reinforced through the editing and rewriting of student compositions, are incorporated into each unit of study. Supplemental units encouraging oral proficiency in basic travel, social and career situations also expand real-life settings in accordance with six themes (global challenges, science and technology, contemporary life, personal and public identities, the family and the community and beauty and aesthetics). Students are expected to use only the target language in all classroom situations. Upon successful completion of these courses, students should plan to continue the course sequence to the appropriate Advanced Placement language class.

ADVANCED PLACEMENT

**CHINESE, FRENCH, GERMAN, & SPANISH LANGUAGE AND CULTURE
(1365) / (1345) / (1315) / (1305)**

Grades 11, 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of level 4H

This course offers intensive development of listening, speaking, reading, and writing skills by preparing students to demonstrate their level of target language proficiency across three communicative modes (Interpretive [receptive communication], Interpersonal [interactive communication], and Presentational [productive communication]). Materials include novels, plays, short stories, newspaper and magazine articles, as well as current video and audio resources. These materials serve as the basis for discussion and written work. Grammar is studied and amplified for communicative purposes through mini-lessons and in context. More specifically, while communicating in the target language, students will learn to demonstrate an understanding of the culture, incorporate interdisciplinary topics and use the target language in real-life settings in accordance with six themes (global challenges, science and technology, contemporary life, personal and public identities, the family and the community and beauty and aesthetics), which will be studied in depth throughout the course of the year. Technology is integrated with content in every thematic unit of study. Students communicate almost exclusively in

the target language in the classroom. The curriculum has been approved by the College Board's Advanced Placement Program and prepares students for the AP language exam.

AP SPANISH LITERATURE & CULTURE (1306)

Grade 12

Full Year: 5 Credits

Prerequisite: Department recommendation and successful completion of, or simultaneous enrollment in, AP Spanish Language & Culture

The AP Spanish Literature & Culture course uses a thematic approach (i.e. societies, time & space, literary creation, interpersonal relationships, etc.) to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Themes promote the exploration of literature in a variety of contexts and develop students' abilities to make cross-textual and cross-cultural connections. The themes may be combined, as they are interrelated. Students communicate almost exclusively in the target language and continue to develop proficiencies across the full range of communication modes (interpersonal, presentational, and interpretive) and language skills, with special attention focused on language used in critical reading and analytical writing. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes exploration of various media (e.g., art, film, articles, literary criticism), while integrating technology with content in every thematic unit of study. The course prepares for the AP Spanish Literature & Culture Exam.

ADVANCED STUDIES IN SPANISH: FILM (1307)

Grade 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation and successful completion of Spanish 3 (Note: concurrent enrollment in another world language course is permitted)

This conversational course provides students opportunities to explore and enhance their understanding of Spanish language and culture through film. Specific connection is made to regional and cultural differences, including discussion around character and plot analysis, and comparison to corresponding texts and artistic representations (as applicable), etc. The course will incorporate various themes (i.e. societies, time & space, interpersonal relationships, etc.) that promote the exploration of Hispanic film in a variety of contexts and develop cross-cultural connections. Students communicate exclusively in the target language in the classroom and continue to develop language proficiency (interpersonal, interpretive, and presentational) across a full range of language skills, with special attention focused on conversational language used in critical interpretation and analytical expression.

ADVANCED STUDIES IN SPANISH: CONTEMPORARY TOPICS (1308)

Grade 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation and successful completion of Spanish 3

(Note: concurrent enrollment in another world language course is permitted)

This conversational course provides students opportunities to explore and enhance their understanding of Spanish language and culture through current articles, headlines, podcasts, music, and multimedia. Specific connection is made between past and present perceptions of Hispanic culture, while investigating areas of social debate from a Hispanic and Western perspective. The course will incorporate various themes (i.e. business/careers, media trends, artistic expression etc.) that promote the exploration of contemporary Spanish-speaking countries in a variety of contexts and develop cross-cultural connections. Students communicate exclusively in the target language in the classroom and continue to develop language proficiency (interpersonal, interpretive, and presentational) across a full range of language skills, with special attention focused on conversational language used in critical interpretation and analytical expression.

ADVANCED STUDIES IN FRENCH: FILM (1347)

Grade 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation and successful completion of French 3
(Note: concurrent enrollment in another world language course is permitted)

This conversational course provides students opportunities to explore and enhance their understanding of French language and culture through film. Specific connection is made to regional and cultural differences, including discussion around character and plot analysis, and comparison to corresponding texts and artistic representations (as applicable), etc. The course will incorporate various themes (i.e. societies, time & space, interpersonal relationships, etc.) that promote the exploration of French film in a variety of contexts and develop cross-cultural connections. Students communicate exclusively in the target language in the classroom and continue to develop language proficiency (interpersonal, interpretive, and presentational) across a full range of language skills, with special attention focused on conversational language used in critical interpretation and analytical expression.

ADVANCED STUDIES IN FRENCH: CONTEMPORARY TOPICS (1348)

Grade 10, 11, 12

Half Year: 2.5 Credits

Prerequisite: Department recommendation and successful completion of French 3
(Note: concurrent enrollment in another world language course is permitted)

This conversational course provides students opportunities to explore and enhance their understanding of French language and culture through current articles, headlines, podcasts, music, and multimedia. Specific connection is made between past and present perceptions of French culture, while investigating areas of social debate from a French and Western perspective. The course will incorporate various themes (i.e. business/careers, media trends, artistic expression) that promote the exploration of contemporary French-speaking countries in a variety of contexts and develop cross-cultural connections. Students communicate exclusively in the target language in the classroom and continue to develop language proficiency

(interpersonal, interpretive, and presentational) across a full range of language skills, with special attention focused on conversational language used in critical interpretation and analytical expression.

SPANISH LANGUAGE AND CULTURE 1 (1381)

Grades 9, 10, 11

Full Year: 5 Credits

Prerequisite: Department recommendation

As the first part of a two-year sequence, this course is designed for those students who have had no previous experience in the study of a world language and exhibit specific difficulty in phonemic awareness, word retrieval and fluency, or auditory processing or have completed Conversational Spanish 8 at CMS. Through exposure to Spanish language, students begin to develop basic skills in listening, speaking, reading, and writing. They also develop functional knowledge of basic elements of language, vocabulary, and structure. Technology is integrated with content in every thematic unit of study. The curriculum employs variety in instruction and assessment to help students develop basic language proficiency. Specifically, students read and write dialogues and short stories, listen to Spanish songs and conversations, participate in oral drills and skits, and create projects in Spanish. In addition, students gain cultural awareness through the study of various aspects of life in the Spanish-speaking world. Students are expected to use the target language in all appropriate situations in the classroom. After successful completion of this course, students will proceed to Spanish Language and Culture 2. This course does not meet the NCAA requirement.

SPANISH LANGUAGE AND CULTURE 2 (1382)

Grades 10, 11, 12

Full Year: 5 Credits

Prerequisite: Successful completion of Spanish Language and Culture 1

This course is the second part of a two-year sequence. It is designed for students who have not studied a world language prior to high school and exhibit specific difficulty in phonemic awareness, word retrieval and fluency, or auditory processing. Through additional exposure to the Spanish language, students continue to develop basic skills in listening, speaking, reading, and writing. Technology is integrated with content in every thematic unit of study. Students also expand their functional knowledge of basic elements of language, vocabulary, and structure. Instruction is multi-modal, employing a variety of approaches such as Total Physical Response, Project Based Learning, creative dramatics, song, deductive and inductive approaches to understanding language in context, etc. Students are evaluated by a variety of assessment types. Their cultural awareness also continues to develop as they deepen their study of various aspects of life in Spanish-speaking countries. Upon completion of the Language and Culture sequence, students will have met their World Language graduation requirement, but may choose to explore level 1 of a new language in remaining years at CHS. This course does not meet the NCAA requirement.

SPANISH LANGUAGE AND CULTURE 3 (1383)

Full Year: 5 Credits

Prerequisite: Successful completion of Spanish Language and Culture 2

This course is the third part of a three-year sequence. This sequence is designed for students who exhibit specific difficulty in phonemic awareness, word retrieval and fluency, or auditory processing. Through additional exposure to the Spanish language, students continue to develop basic skills in listening, speaking, reading, and writing. Exposure to the Spanish-speaking world and culture is expanded. Technology is integrated with content in every thematic unit of study. Students also continue to expand their functional knowledge of basic elements of language, vocabulary, and structure. Instruction is multi-modal, employing a variety of approaches such as Total Physical Response, Project Based Learning, creative dramatics, song, deductive and inductive approaches to understanding language in context, etc. Students are evaluated by a variety of assessment types, which are interpersonal, presentational and interpretive in nature. Students are expected to use the target language in all appropriate situations in the classroom. This course does not meet the NCAA requirement.