

SHAKER HIGH SCHOOL
Course Catalog
2023-24

GRADUATION REQUIREMENTS

GENERAL INFORMATION

PROGRAM OPTIONS

COURSE DESCRIPTIONS



A MESSAGE FROM THE PRINCIPAL

Shaker High School offers rich and diverse courses of study. Each year students and parents are asked to decide on a course of study. These academic choices begin to define students’ interests, expectations, and future career path. It is important for students’ and parents to reflect on the students’ strengths and interests during the course selection process. Each student’s school counselor will assist in reviewing a student’s academic record to insure that each student has the opportunity to challenge themselves and explore their interests.

This Course Catalog contains information on the courses and programs offered at Shaker High School. This document is updated yearly to reflect the changes and additions to the curricula at Shaker High School. Students and parents are encouraged to review the many choices and options for study. The faculty and administration are available to aid in this important process. Please call upon them with questions.

Deadlines have been established for program and course selection decisions. Course changes will not be allowed after May 12th. Students and parents must be sure that they have reviewed and considered all of the program options prior to making their final course selections.

Jim Wager
High School Principal

MISSION:

Our enduring vision is, and will continue to be, to maintain a safe and wholesome school environment – one that constantly improves our comprehensive educational system, providing opportunities, services, and instruction of the highest quality and value to our children. Therefore, we have developed programs designed to enable our students to succeed academically and socially and prepare them for the demands of the global work place...

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SHAKER HIGH SCHOOL 785-5511

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COURSE AND TESTING REQUIREMENTS FOR GRADUATION

ADVANCED REGENTS DIPLOMA

Required Courses	Testing Required for Advanced Regents Diploma (passing score-65)
English 4	Common Core English Regents Exam
Social Studies 4	Global History and Geography Regents Exam
Math 3	U.S. History and Government Regents Exam
Science 3	Common Core Algebra, Common Core Geometry AND Common Core Algebra 2 Regents Exams
World Languages (LOTE) 3*	Two Science Regents Exams
Fine Art 1	Checkpoint B Exam for LOTE *
Health 5	
Physical Education 2	
Electives 1.5	
TOTAL CREDITS 22	

**Students acquiring 5 units of credit in one of the following may be exempt from the LOTE requirement: Art, Business, Music, or Career and Technical Education.*

Students who earn a 90 average or above on required exams will earn an "Advanced Regents with Honors" endorsement.

Specialized Shaker High School Diplomas

Students earning a 3-½ year average of 88-92 will receive a specialized diploma "with honors"; students earning a 3-½ year average of 93 or higher will receive a specialized diploma "with high honors."

A **Liberal Arts Diploma** will be awarded to students who complete the following program:

- 4 units** Regents level or above English
- 4 units** Regents level or above Social Studies
- 4 units** Regents level or above Science
- 4 units** Regents level or above Math
- 5 units** of LOTE plus exam or 6 years of two different languages with LOTE exams
- 2 units** of Fine Art and/or Music
- .5 unit** of Health
- 2 units** of PE

A **Scientific Diploma** will be awarded to students who complete the following program:

- 4 units** Regents level or above English
- 4 units** Regents level or above Social Studies
- 5 units** Regents level or above Science
- 5 units** Regents level or above Math
- 3 units** of LOTE plus exam
- .5 unit** of Computer Science OR 1 year of Science Research
- 1 unit** of Fine Art and/or Music
- .5 unit** of Health
- 2 units** of PE

REGENTS DIPLOMA

Required Courses	Testing Required for Advanced Regents Diploma (passing score-65)
English 4	Common Core English Regents Exam
Social Studies 4	Global History and Geography Regents Exam
Math 3	U.S. History and Government Regents Exam
Science 3	Common Core Algebra
World Languages (LOTE) 1	One Science Regents Exam
Fine Art 1	Checkpoint A exam for LOTE OR 1 unit of high school World Language (LOTE) credit.
Health 5	
Physical Education 2	
Electives 3.5	
TOTAL CREDITS 22	

Students who earn a 90 average or above on required exams will earn a "Regents with Honors" endorsement.

REQUIREMENTS AND POLICIES

Introduction

Planning a program of study for each of the four years of high school is one of many important decisions students must make. In this decision-making process, students are encouraged to use the advice and counsel of their parents, counselors and teachers, as well as students who have preceded them at Shaker High School.

Selecting a Course of Study

Prior to entering grade 9, each student will meet with their middle school counselor to plan the high school program the student wishes to pursue. In each subsequent year, students will meet with their high school counselor individually and in small groups to review and plan the next year's program. Parents are also expected to review their child's program. They are provided a written copy of the child's tentative program for the next academic year in sufficient time to request desired modifications prior to May 12th. If conflicts in scheduling develop, students will be notified during the summer so that alternate courses may be selected. Parents and students are reminded that program or individual subject offerings may vary from year to year as circumstances warrant necessary changes. Electives described in this publication are open to all students and will be taught providing conditions of enrollment, staff availability and other pertinent factors as determined by the building principal.

A (P) following a course title indicates a prerequisite exists. Many courses have stated prerequisites which must be met before a student can be enrolled in that particular course. Prerequisites are determined through experience over several years and are established to aid students in selecting courses in which they have reasonable assurance of success. If a student requests a course, but does not meet the prerequisite, he/she may contact the school counselor to pursue the Request for a Waiver of Prerequisite process. The Department Supervisor may give permission for a student to take a course where adequate grounds exist for the student not having met the prerequisite and in the opinion of the Department Supervisor, where there is a reasonable likelihood that the student will be successful in the course.

Homework

North Colonie Administrative Regulations define homework "as that activity which is intended to extend beyond the time of the instructional period, and which is to be completed in the study hall or out of school." Homework will be assigned in English, Social Studies, Mathematics, Science, World Language and Business with a maximum intended length of 45 minutes per class lesson. Other departments may assign homework where appropriate within this guideline. (For further details, please refer to the complete Board of Education Policy.)

Changes of Program

While students may exercise wide latitude of freedom and choice in determining their academic program, all program requests for the next year must be finalized by May 12th. After this date, requests for a program change can only be initiated under the most unusual circumstances via the Special Program Procedure available in the Counseling Office.

Course Load/Grade Placement

Each student in grades 9, 10 and 11 must enroll in a minimum of six courses each semester. Students in grade 12 must enroll in a minimum of five courses each semester. In addition, all students must enroll in physical education each semester. A student's grade placement is determined by the number of units earned and by the highest grade level of English or Social Studies in which the student is enrolled. Assignment to 10th grade requires a student to have earned 5 credits, exclusive of physical education, including one unit in English 9 or Social Studies 9. Assignment to 11th grade requires 9 units of credit, exclusive of physical education, and successful completion of either English 10 or Social Studies 10. Exception: all candidates for graduation in that academic year will be assigned to 12th grade.

Doubling of Courses

No student may concurrently pursue two full-year courses that are ordinarily taken in sequence, e.g., English 9 and 10, Languages 1 and 2, Global Studies 9 and 10, Global Studies 10 and U.S. History, Math 9 and 10. Only in the senior year would a student be permitted to take English 11 and English 12 or U.S. History and Economics and Government concurrently.

GRADE REPORTING

All grades are numerical. The passing grade for all levels is 65. The letters written as part of the title of a course are used to designate the level of instruction.

SUBJECT LEVEL

AP – Advanced Placement	H – Honors
R – Regents	E – Elective

A mark for the first semester is the result of averaging first and second quarter marks with the semester test, where applicable. A second semester mark is the result of averaging third and fourth quarter marks with the final examination, where applicable. The final school mark (FSM) is found by averaging first and second semester averages. In effect, class work counts two-thirds of the final mark and examinations, one-third. The final school mark and Regents score are recorded on a student's secondary school record and are entered on transcripts sent to colleges and employers.

Honor and Merit Rolls

Grade level high honor, honor and merit rolls are established each marking period. To qualify for the high honor roll, a student must have an average of 93 in all courses with no grade less than 90. To qualify for the honor roll, a student must have an average of 90 in all courses with no grade less than 85. To qualify for the merit roll, a student must have an average of 85 in all courses with no grade less than 80. To qualify for the high honor, honor or merit roll a student must have a citizenship grade of "1" or "2."

Student Transfers from Other Schools

A parent or legal guardian must accompany students transferring to Shaker High School. Credentials of students transferring to Shaker will be evaluated in terms of the requirements of the student's previous school and NYS Education Department requirements. Necessary changes in a transfer student's program of study may be made in consultation with the student's counselor any time prior to the end of the student's second full week at Shaker High School. For class rank purposes only, students who transfer with letter grades will have these grades transposed to numerical grades using the following conversion:

A+	98	B+	88	C+	78	D+	69	F	60
A	95	B	85	C	75	D	67		
A-	91	B-	81	C-	71	D-	65		

Students who transfer after the first five weeks of school will have grades computed as determined by the School Counselor, Department Supervisors and Hall Principal.

NCCA ELIGIBILITY

The NCAA has strict academic eligibility requirements in order to compete at the collegiate level in Division 1 or 2 athletics. In determining eligibility, the NCAA considers the academic courses a student takes, performance on standardized tests and grade point average. Not all courses can be used towards eligibility to become a student athlete at the D1 or D2 level. Please note: Not all full year/one credit Shaker High School Courses count as a full credit for NCAA Eligibility. Approved Core Courses are highlighted in the course descriptions.

To familiarize yourself with course eligibility and other academic requirements, please:

- › Visit <http://www.ncaa.org/student-athletes/future>
- › Scroll to the bottom of the page and click on CORE COURSES under the Student-Athlete Pages.
- › Next click on "Find Your High School's List of NCAA core courses" and enter Shaker High School's CEEB code which is 333388

SHAKER HIGH SCHOOL NCAA APPROVED COURSES 2023-2024

ENGLISH:	SOCIAL STUDIES:	MATH:	SCIENCE:	WORLD LANGUAGES:
English 9 H/R	Global History 9 H/R	Algebra 1	Biology AP/H/R	French 1, 2, 3, 4, 5
English 10 H/R	Global Studies 10 H/R	Common Core Algebra 1A (.5)	Applied Biology 1R	AP French
English 11 H/R	AP World History	Common Core Algebra 1B (.5)	Applied Biology 2R	Spanish 1, 2, 3, 4, 5
AP Language & Composition	US History & Government 11 H/R	Unified 1 Algebra (.5)	Unified Biology 1 (.5)	AP Spanish
AP English Literature & Composition	AP United States History	Geometry H/R	Unified Biology 2 (.5)	German 1, 2, 3, 4, 5
Exploring Cultures through Literature	AP US Government/ Economics H	Unified 2 Algebra (.5)	Earth Science R	Latin 1, 2, 3
Introduction to Philosophical Problems	AP Macroeconomics/ Government H	Common Core Algebra 2 H/R	Chemistry AP/H/R/E	Russian 1, 2, 3, 4, 5
Journalism	Politics & Economics of Gender	Common Core Algebra 2A (.5)	Physics AP/UHS/H/R	
Nonfiction Writing	Politics & Economics of US Foreign Policy	Common Core Algebra 2B (.5)	Environmental Science AP/E	
Public Speaking	Politics of Green Economics	Unified 3 Intermediate Algebra (.5)	Astronomy & Severe Weather	
Reading Literature	Inequality in America	College Algebra with Trigonometry	Forensics	
Science Fiction & Fantasy	The US & Humanitarian Crises in the 20th Century	Topics in Advanced Math	Science Research 10	
Sports in Literature	Media & Politics	Pre-Calculus H/R	Science Research 11	
Introduction to Creative Nonfiction	The American Economy in a Global Market	AP Calculus AB	Science Research 12	
Creative Writing	Economics: Principles & Applications	AP Calculus BC		
Readers Workshop (PENDING APPROVAL)	War in the US	College Calculus 1 UHS		
English Composition I (PENDING APPROVAL)	Introduction to Sociology	AP Statistics-Probability		
	Psychology UHS	Introduction to Data Science		
	Civic Engagement and Leadership (PENDING APPROVAL)	Introduction to Computer Science with Multimedia and Python (PENDING APPROVAL)		
	Business Law			

Key: AP-Advanced Placement, UHS-University in the High School, H-Honors, R-Regents, R-Regents, E-Elective

PROGRAM OPTIONS

Advanced Placement Program

Shaker High School offers a variety of Advanced Placement courses for students who wish to earn advanced college placement or college credit in particular subjects. Awarding of this advanced placement or course credit is based on the student's AP exam grade and the specific requirements and expectations of the college or university that the student will be attending. Please note that the AP examination is required of all students taking an AP course. A fee is charged by the College Board and must be paid or the student may be placed in a different course. Students must complete an AP application for each Advanced Placement course for which they are interested in enrolling. Applications can be obtained from the secretary to the supervisors'. The specific deadline date will be clearly marked on the application and also announced by subject area teachers and supervisors. Specific AP questions should be discussed with the Department Supervisors.

AP courses offered at Shaker High School:

AP Biology	AP World History
AP Chemistry	AP United States History
AP Physics C	AP United States Government and Politics/ Economics 12H
AP Environmental Science	AP Macroeconomics/ Government 12H
AP Spanish	AP English Literature and Composition
AP French	AP Language and Composition
AP Calculus AB	
AP Calculus BC	
AP Statistics-Probability	
AP Computer Science	

The University in the High School Program

In order to provide qualified Shaker High School students with an opportunity to acquire college credit, many courses have been developed in collaboration with local colleges. In order to enroll in a UHS course, students must meet the established prerequisites. College credit will be granted in UHS courses if the student achieves a grade of 75 or higher. A student must earn a minimum grade of 65 in order to receive Shaker High School credit towards graduation. There are no exemptions from final examinations. Individual courses should be discussed with Department Supervisors. The transferability of these courses is determined by the college or university the student will be attending. There is

UNIVERSITY AT ALBANY

Topics in Advanced Math	French 5
College Accounting	AP French
AP Statistics-Probability	Russian 4
Precalculus R	Russian 5
College Calculus I	Spanish 4
Science Research	Spanish 5
Reading Literature	AP Spanish
Introduction to Philosophical Problems	Latin 3
French 4	Introduction to Sociology

RUSSELL SAGE COLLEGE

UHS Advanced Art and Design 2
UHS Advanced Art and Design 3
UHS Advanced Digital Photography E
UHS Advanced Graphic Design E
UHS Advanced Ceramics 1E
UHS Ceramics 2E
UHS Advanced Spatial & Interior Design E
Advanced Painting (Pending Approval)

SUNY OSWEGO

German 4
German 5

SIENA COLLEGE

UHS Physics (up to 8 credits)
Introduction to Computer Science with Multimedia and Python

HUDSON VALLEY COMMUNITY COLLEGE

Principles of Marketing	English Composition I
Business Statistics	Business Management
Math and Finance	UHS Metal and Jewelry Design
Child Development	UHS Advanced Metal and Jewelry Design
College Algebra with Trigonometry	UHS Art History

SYRACUSE UNIVERSITY PROJECT ADVANCE

WRT 114: Introduction to Creative Nonfiction (3 credits)
CHE 113: Forensic Science (4 Credits)

no guarantee that college credits earned while in high school will be accepted by a student's college or university.

Advantages to enrolling in the UHS Program:

- › Students can earn college and high school credit for successfully completing the course.
- › Students may fulfill first-year course requirements for college graduation.

- › The cost of a college education could be reduced depending on the college and the student's plans.
- › The tuition for each course would vary from \$120-\$330. However, in some cases of financial need, some students may be eligible for a scholarship which would cover up to 75% of their tuition.

Career & Technical Education Programs

Students have access to a variety of career and technical (CTE) training and experiential learning through Capital Region Boces. They can earn industry experience, professional certifications, and college credits and skills that can bridge a multitude of careers. Students will spend one half of the school day at the Capital Region Boces Career & Technical School, and one half of the day at the high school, Monday through Friday. To be eligible, students must have completed 9th and 10th grade, and be in good academic standing. If interested, please speak with your school counselor for more information.

Independent Study

Any student may choose to learn about a topic or subject that is for elective credit through the Independent Study Project. Independent Study may involve an investigation of one specific area of a subject for which both the student and the advisor share an appreciation. It may involve out-of-school endeavors or a vocational interest. This involves an individual student working with a faculty advisor on a project approved by the Principal. The project results from a written application made to the advisor by the student prior to the commencement of study. A minimum of 75 hours is required for one-half unit of credit and a minimum of 150 hours is required for one unit of credit. Independent Study is excluded from the required minimum of classes in a student's schedule. Applications for the Independent Study Contract Agreement may be obtained from the main office.

Academic Intervention Services (AIS)

Shaker High School has developed an AIS plan consistent with NYS regulations. Students are provided AIS services if they have not yet passed a Regents exam required for graduation (CC English, Living Environment, Global History, US History, CC Algebra); have scored a level 1 or 2 on the ELA, Math, or Science NYS Eighth Grade

Assessments; or have failed a midterm exam in a course leading to a Regents exam needed for graduation. Placement in AIS will be made with the approval of department supervisors, counselors, principals and AIS coordinators.

Summer Study and August Regents Exam

Summer school may be pursued in an approved secondary summer school upon the recommendation and permission of the counselor. Students may be admitted to August Regents examinations at Shaker High School, or other high schools, by applying directly to the summer school principal. The request must be signed by the student and a parent/guardian and authorized by the principal of the student's home school. Summer school, or a formal tutoring program, is strongly recommended for students taking August walk-in Regents examinations.

OPTIONS FOR SENIORS

Early Admission to College and Graduation from Shaker High School

A limited number of students who have not completed all of the requirements for graduation from Shaker High School may be accepted into college at the end of their junior year. In order to be eligible for this program, a student must have attended Shaker High School as a full-time student for a period of one school year. In addition, students wishing to pursue this option must have successfully completed three years of physical education, English and Social Studies and passed all of the Regents exams required for graduation. Interested students must also complete an application and submit it through their school counselor to the building principal for approval. Those students who receive approval will be awarded a Shaker High School diploma after successfully completing their first year of college, which must include the equivalent of two semesters of English and Social Studies and confirmed by the submission of a completed official transcript to the Counseling Department Office. Those students wishing to participate in graduation ceremonies must notify the Taft Hall Principal by April 1 of the year in which they plan to graduate.

January Graduation from Shaker High School

Students who wish to complete graduation requirements in January of their senior year must complete the appropriate application and submit it to their counselor prior to the end of grade 11. Students choosing this option must complete one unit in both English and Social Studies during the first semester of their senior year. Final approval of all requests will be subject to available space in appropriate classes as determined by the school's administration.

Early Graduation from Shaker High School

Students who wish to graduate from Shaker High School at the end of three years must indicate this intention in the appropriate application and submit it to their counselor prior to the end of the sophomore year. Students choosing this option must complete all graduation requirements.

College Courses

Seniors may be interested in taking one or more college courses on one of the local college campuses. Students who wish to pursue this option must notify their counselor and their request will be handled through a special program. One college course may be applied toward meeting the Board of Education requirement which states that each senior must be enrolled in a minimum of five courses. Acceptance in college courses is dependent upon the student's achievement during the first three years of high school. Cost of tuition and transportation for such courses is the responsibility of the student.

Early Release

Only students in grade 12 who meet the minimum course load requirements as defined by the Board of Education policy may apply for early release. Students must have earned 16 units of credit by the beginning of their senior year to apply for early release. Qualified students must apply through the Taft Hall Office and the hall principal must approve. When an 8th period class is scheduled, and period 8 replaces period 7, students will not be granted an early dismissal. Early release will not be honored if there are conflicts with requested courses of study. Please see application for more detail.



STUDENT ASSISTANCE

If you find that you are having difficulty in school with academics or personal issues, there are people in the high school who can help:

School Counselor

School Counselors are certified educators who improve student success for ALL students by implementing a comprehensive school counseling program. They are vital members of the education team and maximize student success by helping them realize their educational strengths and apply academic achievement strategies. School counselors guide students in making realistic post-secondary plans (higher education, work force, and military) and help students achieve success with their personal and social development.

School Psychologist

The school psychologist acts as a consultant-advocate for students in a wide variety of educational and social adjustment domains. In addition, this individual may act as a resource and provide information on community specialists, agencies and available programs. Students who wish to utilize the service of the school psychologist may make an appointment in the school psychologist's office or through the Counseling Office. Parents, teachers and others may also request that the psychologist have contact with a particular student.

Student Assistance Counselor

The Student Assistance Counselor supports students and families by providing counseling, education, and referral services related to: mental health, substance abuse, healthy relationships, transition/adjustment, divorce and separation, grief and loss and self-harm and suicide. Students may make appointments in the School Counseling Office to see the Student Assistance Counselor who is also available to

students in crisis. Students are also encouraged to refer peers to the Student Assistance Counselor, which can be done confidentially.

Health Services

An experienced health staff consisting of a school physician, school nurse and health office assistant, is available to students. A physical appraisal is required for all tenth grade students. In addition, students competing in athletics or seeking working papers must receive a physical examination by a physician. Students who have specific concerns about any aspect of their physical health are encouraged to meet with a member of the health services staff.

Remedial Reading

A reading specialist is available to work with students who require assistance. Performance below the district standardized test reference point or the NYS ELA reference point and/or teacher recommendation qualify a student for services. Such services are offered on a group basis. In order to help the greatest number of students, the reading specialist works closely with the English Department which emphasizes reading skills as a major part of the English curriculum.

English as a New Language (ENL)

Students identified as English Language Learners (ELLs) are expected to achieve the same standards-based goals established by the Board of Regents for all students. In accordance with the Commissioner's Regulation Part 154, ELLs who score below specified levels on the NYSITELL or NYSESLAT exam shall receive language proficiency and academic support services based on designated units of study and provided through integrated instruction in content area courses and stand-alone ENL classes.

Specialized Student Support Programs

There are a couple of options available for students experiencing academic/social challenges. They consist of: TASC and PRESS Please contact the Counseling Office for more information.

Speech/Language Therapy

Qualified students who wish help in improving their speech may take advantage of this service. Meeting on a regular basis with a speech/language therapist provides the opportunity to gain in self-confidence and to correct any problems which make it difficult for the student to communicate clearly with others.

Special Education

Special Education is available to students with disabilities upon completion of an appropriate evaluation, program visitation by parent, student and staff, consultation with parents, approval by the building Pupil Service Team, the District Committee on Special Education, the Board of Education and the parents. Based on the educational needs of the student, the following options are available: Resource Room (RR), Special Class (SPCL) and Consultant Teacher Services (CT). The Resource Room program is for students who participate in mainstream classes and require academic support in the areas of reading, math and/or language arts. Special Class is for students who require core academic instruction within a special educational setting. SPCL students have access to our elective offerings. CT support is provided to students who are mainstreamed 100% of the day that require support from a special education teacher, but who do not need a special education program.

Confidentiality of Records

A cumulative record (K-12) for each student enrolled at Shaker High School is maintained by the Counseling Department subject to specified Board of Education Policy and approved administrative regulations. Students, by appointment with their counselors, are entitled to receive an interpretation of all information contained in their records. Parents, or persons in parental roles, are also authorized to review, by appointment, their child's record as well and receive an interpretation of it from appropriate school personnel. However, no third party including peace officers, lawyers, or agents shall be permitted access to information contained in any student's record without the expressed written permission of the person in a parental relationship to the student or the written permission of a student eighteen years or older.

COURSE DESCRIPTIONS

ART COURSES

It is recommended that courses be taken in suggested sequences. Studio Art & Design and Media Art & Design are Regents Level full year courses that each fulfill the Fine Arts Graduation Requirement. These initial courses serve as the prerequisite for the full year Art electives. A 5-unit visual art and design sequence must include Studio or Media Art & Design followed by Drawing & Painting. Students taking art and design courses are encouraged to keep a portfolio of their work.

711 STUDIO ART & DESIGN E

Full Year 1 Unit

Studio Art and Design is a Regents level introductory course exploring the elements and principles of design and the variety of course offerings available in the art department. Students will be exposed to drawing, painting, sculpture, electronic media and ceramics, among other media. Art appreciation, the history of art, art and design careers and a focus on cultural heritages will be included. This course, or Media Art & Design, is required of all students planning to have a sequence in art, and it meets the art graduation requirement. This course provides a broad, general background in the visual arts.

712 MEDIA ART & DESIGN

Full Year 1 Unit

Media Art and Design is a Regents level introductory course exploring the elements and principles of design and the variety of course offerings available in the art department, with a strong emphasis in Digital Media. Students will be exposed to digital photography, graphic design, animation, film and video, along with some work in traditional media of drawing, painting and sculpture. 3D imaging and printing will also be explored. Students will use a range of software programs, including the Adobe Creative Suite, animation and movie making programs. Art appreciation, the history of art, art and design careers and the connection to cultural heritages will be included. This course, or Studio Art and Design is required of all students planning to have a sequence in art, and it meets the art graduation requirement. This course provides a broad, general background in digital media arts.

713 DRAWING AND PAINTING E (P)

Full Year 1 Unit

Prerequisite: Studio or Media Art and Design or permission of supervisor

This full-year course will encourage students to develop visual awareness through the study of basic drawing and painting skills. Areas of study will include contour line, rendering, perspective, portrait and figure drawing. The course will investigate a variety of techniques and media including pencil, charcoal, ink, pastel, tempera, watercolor and acrylic paint. Art history and

contemporary art are sources of inspiration. The observational drawing skills developed in this class are desirable for architecture and art and design portfolios.

742 ADVANCED ART & DESIGN 1 E (P)

Full Year 1 Unit

Prerequisite: Studio or Media Art and Design and a FSM of 90 or higher in Drawing & Painting is recommended or permission of the Department Supervisor.

This Honors level art course is third in the 5 unit sequence and is designed to improve artistic skills and facilitate the transition from high school art to college-level study. Students will receive intensive support and direction to develop skills emphasizing drawing, color theory, design, spatial representation, expressive content, and delivery of ideas in critiques and artist statements. Students will be introduced to the work of numerous artists and art historical periods, as well as creative careers and college programs. Students are expected to participate in field trips as part of the required course curriculum, and complete a summer art assignment.

743 UHS ADVANCED ART & DESIGN 2 E (P)

Full Year 1 Unit

Prerequisite: A FSM of 85 or higher in Advanced Art and Design 1.

This Honors level course is fourth in the sequence and is ideal for the highly motivated art student who has demonstrated ability and achievement in Art and Design 1 and is interested in advanced study in a variety of art media. Students will be exposed to artist styles and art historical periods through project work, and develop communication skills in critiques and reflections. Portfolio presentation and observational drawing techniques that colleges look for are a focus in this course. Students are expected to participate in field trips and portfolio review events as part of required course curriculum and complete a summer portfolio assignment. This course earns three transcript credits from Russell Sage College. A tuition fee is required.

760 UHS ADVANCED ART & DESIGN 3 E (P)

Full Year 1 Unit

Prerequisite: For seniors only. A FSM of 85 or higher in UHS Advanced Art and Design 2 OR Advanced Art and Design 1 with approved summer pre-college study and permission of Department Supervisor.

In this College level course, students build on previous years work and produce a portfolio of upwards of 20 works. The focus is on technical skills and conceptual visual imagery including a sustained investigation of themes and media. Students will be expected to complete project work during the summer and are expected to participate in field trips and portfolio review events related to course curriculum. They will also plan, organize and install an end-of-the-year art exhibit. This course earns three transcript credits from Russell Sage College. A tuition fee is required.

738 ART & DESIGN FOUNDATIONS 1**Full Year 1 Unit***Supervisor Recommendation Required*

This course will build students' knowledge about cultures and society, develop interpersonal skills, aptitudes and abilities in handling a range of materials to create art and design products. Students will create and collaborate on artwork through an exploration of a variety of 2D and 3D media to master foundational skills and competencies. Students will learn from one another, developing problem solving skills, and building a sense of community in the classroom and beyond. They will develop artistic purpose and communicate intent through project work. Learning how to think about and respond to art and how it connects to cultures and society will be an important theme of the course.

748 ART & DESIGN FOUNDATIONS 2**Full Year 1 Unit***Supervisor Recommendation Required*

This course will continue to develop students' knowledge about cultures and society. Students will continue to focus on effective interpersonal skills, aptitudes and abilities in handling a range of materials to create art and design products. Students will create and collaborate on artwork through an exploration of a variety of 2D and 3D media to reinforce and master skills and competencies. Students will learn from one another, develop problem solving skills, and contribute to a sense of community in the classroom and beyond. They will continue to develop artistic purpose and communicate intent through project work. Learning how to think about and respond to art and how it connects to cultures and society will be further expanded.

HALF YEAR ELECTIVES**727 FASHION & COMMERCIAL ILLUSTRATION E****Either Semester ½ Unit**

In this course students will develop drawing skills as they relate to illustration in many forms. Figure proportions, fashion styles and costume design will be covered, as well as illustration for books, magazines, product designs, the web design, and other applications. Exposure to and handling of various art materials, including digital technology is also a course objective.

737 ADVANCED FASHION & COMMERCIAL ILLUSTRATION E (P)**Either Semester ½ Unit***Prerequisite: A grade of 85 or higher in Fashion & Commercial Illustration.*

In class with beginning students, those at the next level will work on a variety of illustrative drawings developing figure proportions and handling of art materials, including digital tools. Students will build on the skills learned at the introductory level and be held to a higher level of criteria in fashion design and commercial illustration assignments.

715 PAINTING E**Either Semester ½ Unit**

This course will provide students with an opportunity to develop an understanding and appreciation for painting in acrylic and watercolor. The student will be introduced to the work of master painters and the history of painting, as well as contemporary artwork. The student will develop skills and techniques associated with painting media. Drawing skills are important and will be stressed when planning and developing compositions. Students will work with subject matter including still life, landscape and the human figure.

745 ADVANCED PAINTING E**Either Semester ½ Unit***Prerequisite: A grade of 85 or higher in Painting.*

In class with beginning painting students, those at the next level will also work in both acrylic and watercolor media. Higher level criteria will be involved in painting assignments. Students will develop several paintings exploring themes with evidence of research in Art History, cultures and contemporary artists. UHS credit may be an option for advanced students. Proposal pending to earn three transcript credits from Russell Sage College. A tuition fee is required.

722 CERAMICS 1 (HAND BUILT) E**First Semester ½ Unit**

Students will create work in pinch, coil and slab methods of clay construction. Students will complete a variety of hand-built projects based on techniques and styles from a number of cultures and periods of art history and contemporary art. Surface treatment, glazing and kiln firing will be covered.

752 UHS ADVANCED CERAMICS 1 E (P)**First Semester ½ Unit***Prerequisite: A grade of 85 or higher in Ceramics 1.*

In class with Ceramics 1 students, students at the next level will work to further explore coil and slab construction techniques. New methods and techniques for hand building will also be introduced and explored. Higher level criteria will be involved in ceramics assignments. Students will be introduced to the art of several well-known ceramic artists and sculptors, and may learn how to combine clay with other media such as wood, metal, glass and fibers. Advanced students are eligible to earn college credit through Russell Sage College. A tuition fee is required.

723 CERAMICS 2 (INTRO TO WHEELWORK) E**Second Semester ½ Unit**

This course allows students the opportunity to work with clay on the pottery wheel. In addition students will explore advanced coil and slab building techniques while learning sculptural methods. These projects will be rooted in the styles and techniques of accomplished traditional and contemporary ceramic artists and sculptors.

753 ADVANCED CERAMICS 2 E (P)**Second Semester ½ Unit**

Prerequisite: A grade of 85 or higher in Ceramics 2

In class with beginning wheelwork students, advanced students will work on a variety of challenging hand built and wheel projects. Higher level criteria will be involved in ceramics 2 assignments. The emphasis of this course will be the pottery wheel. Students will learn techniques for creating a variety of exciting forms on the wheel. Students will be introduced to work of well-known sculptors and ceramic artists. Advanced students are eligible to earn college credit through Russell Sage College. A tuition fee is required.

717 3D DESIGN (SCULPTURE) E**Either Semester ½ Unit**

This course will provide students with an understanding and appreciation of sculptural forms and techniques. The students will explore the three-dimensional relationships of volume, mass, and surface treatment. Form and function applications in fields of product design and other creative careers will also be explored. Sculpture materials such as clay, wood, wire, plaster, glass and paper will be utilized. Work of contemporary 3D designers and sculptors will be introduced, in addition to the history of this 3D art form.

747 ADVANCED 3D DESIGN E (P)**Either Semester ½ Unit**

Prerequisite: A grade of 85 or higher in 3D Design.

In class with first-time 3D Design students, advanced students will continue an in-depth exploration of various materials as they relate to volume, mass, and form. Higher level criteria using the design thinking process will be involved in sculpture assignments. Students will be expected to research objects, artists and styles for each 3D design completed during the semester.

714 UHS METAL & JEWELRY DESIGN E**Either Semester ½ Unit**

Students will create small metal art forms of personal adornment. Students will design and produce jewelry using traditional metalsmith techniques such as piercing, sawing, filing, polishing, soldering, and copper enameling. Students will consider the aesthetic qualities and functionality of their jewelry designs. Metal and jewelry design work involves developing drawing and design skills, and may explore 3D printed forms.

744 UHS ADVANCED METAL & JEWELRY DESIGN E (P)**Either Semester ½ Unit**

Prerequisite: A grade of 85 or higher in Metal and Jewelry Design.

In class with first-time students, advanced students will build on the skills learned in Metal & Jewelry Design. New techniques will be learned as well, such as cold connections, like rivets and tabs. Higher level criteria will be involved in advanced assignments. There is a heavy emphasis on drawing and design skills and opportunities for 3D printing. Self-driven research to develop design ideas is expected.

720 SPATIAL & INTERIOR DESIGN E**Either Semester ½ Unit**

This course will provide students the opportunity to explore and develop concepts of space, form, and three-dimensional problem solving techniques used when designing room interiors. Students will incorporate the elements and principles of design that shape relationships between people and their environments. Focus will be on developing drawing, sketching and modeling skills as they relate to linear perspective and the conceptual design of interior spaces people inhabit for living, working and recreation.

730 UHS ADVANCED SPATIAL & INTERIOR DESIGN E (P)**Either Semester ½ Unit**

Prerequisite: A grade of 85 or higher in Spatial & Interior Design

In class with beginning students, advanced students will further explore concepts of space, form, and three-dimensional problem-solving techniques used in interior design. Higher level criteria will be involved in advanced assignments. Continued development of drawing, sketching, modeling, and linear perspective skills will support conceptual design of interior spaces for living, working and recreation. Digital computer designing will be introduced. Advanced students are eligible to earn college credit through Russell Sage College. A tuition fee is required.

719 GRAPHIC DESIGN E**Either Semester ½ Unit**

This course will introduce students to skills and design techniques used by commercial artists working with Adobe Creative Suite software. In this course, students will learn about typography, logo, product, and publication design. Students will use problem solving, with design and computer skills to communicate visual messages with text in graphic design compositions. The class may work with local companies and the school district to create logos, billboards, t-shirts, and publications used in the community.

749 UHS ADVANCED GRAPHIC DESIGN E (P)**Either Semester ½ Unit**

Prerequisite: A grade of 85 or higher in Graphic Design.

In class with first-time Graphic Design students, students at the next level will further develop the graphic design related techniques learned at the introductory level. Higher level criteria will be involved in design assignments. Adobe Creative Suite software will be used to create projects for print. Students will continue to develop a portfolio of Graphic Design work. Emphasis will be placed on developing drawing skills related to designs. Advanced students are eligible to earn college credit through Russell Sage College. A tuition fee is required.

729 ANIMATION & CHARACTER DESIGN E**Either Semester ½ Unit**

In this course, students will study the art and history of animation and character development. The primary focus is on drawing through storyboarding, concept ideas and character design, which have applications to game design and storytelling. Figure drawing and proportion are important aspects of the illustrations. Animation projects will include media arts equipment and stop-

action animation techniques including video editing using current animation software.

739 ADVANCED ANIMATION & CHARACTER DESIGN E (P)

Either Semester ½ Unit

Prerequisite: A grade of 85 or higher in Animation and Character Design.

In class with beginning Animation & Character Design students, advanced students will further explore concept and character development, reinforcing figure proportion drawing as well as explore a more in-depth use of animation software programs to create short animated films. Higher level criteria will be involved in advanced assignments.

724 DIGITAL PHOTOGRAPHY E

Either Semester ½ Unit

This course will introduce students to the study of manipulating and digitally enhancing photographic images. Studio, portrait, and environmental photography will be covered. Students will learn the functions and manual settings of a DSLR camera. They will sign a contract and be responsible for district equipment. Using digital software programs, including Adobe Photoshop, students will work with photographs on the computer and apply the elements and principles of art to create aesthetically strong art compositions using the software tools. Work of historical and contemporary photographers will be used as inspiration.

726 UHS ADVANCED DIGITAL PHOTOGRAPHY E (P)

Either Semester ½ Unit

Prerequisite: A grade of 85 or higher in Digital Photography.

In class with Intro Digital Photography students, students at the next level will work with the digital camera and build on their photo manipulation software skills. Students will compose photographs that solve design problems that create strong art compositions rich in the use of the elements and principles of art/design. Students will sign a contract and be responsible for district equipment. Higher level criteria will be involved in advanced assignments. Advanced students are eligible to earn college credit through Russell Sage College. A tuition fee is required.

728 DIGITAL FILM & VIDEO E

Either Semester ½ Unit

This course is designed to introduce students to the creative aspects of film making and video as an art form. Students will learn to use film language both as a viewer and as a creator. Students will become skilled in film and video production, including script writing, designing a storyboard, camera handling, filming, editing, and utilizing sound. Students will create and screen their own films demonstrating original ideas. The history of film and the work of accomplished film and video artists will be covered. Students will sign a contract and be responsible for district equipment.

758 ADVANCED DIGITAL FILM & VIDEO E (P)

Either Semester ½ Unit

Prerequisite: A grade of 85 or higher in Digital Film and Video.

In class with Intro Film and Video students, advanced level students will work on challenging projects that will further develop their cinematic skills. Students will watch, critique and review classic films and learn how to use movie editing and music composition software in preparation for creating their own individual films. Higher level criteria will be involved in advanced assignments. Students will sign a contract and be responsible for district equipment.

759 UHS ART HISTORY E (P)

Either Semester ½ Unit

Prerequisite: FSM of 85 or higher in Regents level English and Regents level Social Studies.

This course is an introductory college course that surveys great works of art, artists, and art historical movements from prehistory to the present. Works of painting, sculpture, architecture, and decorative arts will be used to make analytic comparisons and explore the relationship between these works and the cultures that made them. Students will experience, research, and write about art and architecture throughout time. Students are eligible for college credit. A tuition fee is required.

*Recommended Sequence of Courses in Art & Design to prepare for admission to college programs in Visual and Media Arts. Other art electives are strongly encouraged in addition to those listed below to enhance the student's portfolio and may be taken as space in their schedule allows. Students interested in **Architecture** college programs are highly encouraged to build an art portfolio to be prepared for admission requirements.*

8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
Accelerated Studio Art & Design	Drawing & Painting	Advanced Art & Design 1	UHS Advanced Art & Design 2	UHS Advanced Art & Design 3 UHS Art History
	Studio Art & Design or Media Art & Design	Drawing & Painting	Advanced Art & Design 1	UHS Advanced Art & Design 2 UHS Art History
Accelerated Studio Art & Design	Drawing & Painting	Any of the half year Art & Design electives offered as an introductory and advanced option, in addition to UHS Art History.	Any of the half year Art & Design electives offered as an introductory and advanced option, in addition to UHS Art History. Application for an Independent Study in any elective area may follow successful completion of the intro and advanced level of any art & design elective.	Any of the half year Art & Design electives offered as an introductory and advanced option, in addition to UHS Art History. Application for an Independent Study in any elective area may follow successful completion of the intro and advanced level of any art & design elective.
	Studio Art & Design Media Art & Design			

BUSINESS EDUCATION

In today's global economy, it is important that all students have knowledge of the economic and financial world in which they live. Shaker High School Students can gain that knowledge with their choice of **2 career pathways** in the Business Education Department. Each career path or sequences of courses is approved by the New York State Education Department and includes a professional exam and an internship. Students who complete all the required courses and pass the professional exam will receive the Regents CTE endorsement on their diploma.

NYSED Approved Programs:

1. **Business Management/ Entrepreneurship**
2. **Business Computer Applications (Microsoft Office Certification)**

BUSINESS MANAGEMENT/ ENTREPRENEURSHIP

*Students must choose a minimum of one college level course**

- Grade 9 #511 Intro to Business I ½ unit
#512 Intro to Business II ½ unit
- Grade 10 #522 Principles of Marketing* ½ unit
#519 Sports and Entertainment Marketing 1 unit
#527 Social Media Marketing and Advertising ½ unit
- Grade 11 #513 Math and Finance* ½ unit
#554 Business Statistics* ½ unit
#516 Accounting ½ unit
#553 College Accounting* 1 unit
- Grade 12 #520 American Entrepreneur ½ unit
#555 Business Management* ½ unit

BUSINESS COMPUTER APPLICATIONS (MOS)

- Grade 9 #511 Intro to Business I ½ unit
#512 Intro to Business II ½ unit
- Grade 10 #509 Keyboarding & Business Communication Essentials ½ unit
#510 Introduction to Microsoft Office Suite ½ unit
- Grade 11 #540 Microsoft Office Certification 1 unit
- Grade 12 #531 Financial Decision Making (CFM) ½ unit

509 KEYBOARDING & BUSINESS COMMUNICATION ESSENTIALS

Either Semester ½ Unit

This course is designed to develop alphabetic and numeric keyboarding skills. Students will develop proficiency in formatting various business documents using Microsoft Teams and Google Docs. Students will learn key concepts in business communication with a focus on digital citizenship. The professional business communication skills discussed are essential for the world of work. The final assessment is departmental. This course is open to students in grades 9-12.

510 INTRODUCTION TO MICROSOFT OFFICE (P)

Second Semester ½ Unit

Prerequisite: #509 Keyboarding & Business Communication Essentials or permission of instructor and a typing test

Students will build skills in Microsoft Office 365, Microsoft Access, Word, Excel, PowerPoint, and Microsoft Teams. Students will learn the how to professionally format letters, flyers, reports, brochures, spreadsheets and charts, and presentations. Students will work on projects that integrate the different Microsoft Office programs. This course is open to students in grades 9-12.

511 INTRODUCTION TO BUSINESS I

First Semester ½ Unit

Recommended for 9th and 10th graders.

This course provides an introduction to the topics of economics, business law, business ownership, ethical decision-making, and social responsibility. Emphasis is placed on the importance of effective human relations skills, teamwork, collaboration, and problem solving. The final assessment is departmental. This course is open to students in grades 9-12.

512 INTRODUCTION TO BUSINESS II

Second Semester ½ Unit

Recommended for 9th and 10th graders.

This course provides an introduction to the topics of international business, management, financial literacy, accounting and marketing. Emphasis is placed on the importance of effective human relations skills, teamwork, collaboration, and problem solving. The final assessment is departmental. This course is open to students in grades 9-12.

527 SOCIAL MEDIA MARKETING & ADVERTISING

Either Semester ½ Unit

Social media has helped give consumers a voice, connecting them with their friends and other like-minded consumers and giving them considerable power over marketers and brands. This course takes an in-depth look at social media platforms, Internet businesses, Internet marketing and advertising and the role social media, marketing and advertising play in a global environment. Students will learn how social media strategies can be used effectively in marketing programs, how to create them, and how to measure, track, and evaluate their performance and effectiveness. This course is open to students in grades 10-12.

531 FINANCIAL DECISION MAKING

Either Semester ½ Unit

Recommended for 11th and 12th graders.

This vital course is useful in planning for college, career and lifelong financial success. Major topics include budgeting, checking and savings accounts, online banking, appropriate use of credit and borrowing, short term and long term investments, the stock and bond markets, mutual funds, real estate, insurance, and retirement options. Students will explore topics using project-based assignments and a variety of simulations. This course is open to students in grades 10-12.

520 AMERICAN ENTREPRENEUR

Either Semester ½ Unit

In this course students will gain an understanding of how to start and successfully run a small business. Over the course of the semester students will develop a business model/plan which includes (but is not limited to) creating their own product/company, developing a logo and slogan, conducting customer discovery, identifying target markets and presenting their business model/plan as if they are on "Shark Tank." Students will learn about the impact of the economy on business, what it takes to be a successful entrepreneur, different types of business ownership, how to identify customers, marketing plan development, how to build and maintain customer relationships, methods for generating revenue and much more! Concepts are taught utilizing project-based learning and practical application assignments. This course is open to students in grades 10-12.

516 ACCOUNTING (P)

Either Semester ½ Unit

Prerequisite: Passing grade in Algebra 1.

This course is an introduction to managing business finances. Students will learn the processes and procedures for effectively maintaining and reporting a business's financial records. Current topics include journalizing, posting, financial statements, and worksheets. Students will complete the accounting cycle manually using Microsoft Excel. The final exam is departmental. This course is open to students in grades 10-12.

513 MATH AND FINANCE (P)

Either Semester ½ Unit

Prerequisite: Passing grade on Common Core Algebra Regents Exam.

This half-year college level Mathematics of Finance course includes algebra-based calculations and analysis of business investment situations. Included are simple compound interest, annuities (ordinary due, deferred, complex, perpetuity and forborne), applications of present value and future value and conceptual discussions of business investments. Students will learn how to use the financial functions in Microsoft Excel and Google Sheets to complete classroom and homework assignments. The final examination is departmental. Students taking this course may receive three college credits at Hudson Valley Community College (HVCC). A tuition fee is required for this option. This course is open to students in grades 10-12.

554 BUSINESS STATISTICS E (P)

Second Semester ½ Unit

Prerequisite: Passing grade on the Common Core Algebra Regents examination.

This course explores general statistical methods used in the collection, presentation, analysis, and interpretation of statistical data. The topics covered are the measures of central tendency; dispersion and skewness; probability theory; probability distributions (discrete and continuous); hypothesis testing, including "t" and "z" distributions; chi square analysis; and regression analysis, correlation and ANOVA. Students will complete case studies using the Statistical Functions in Microsoft Excel. This course carries four Hudson Valley Community College (HVCC) credits for those students who choose this option. A tuition fee is required for this option. This course is open to students in grades 10-12.

522 PRINCIPLES OF MARKETING

Either Semester ½ Unit

Recommended for 11th and 12th graders.

This course provides students an introduction to Business Marketing. The marketing planning process and the market environment will be discussed. Students will learn about consumer behavior and gain an understanding of targeting and positioning. Additionally, the elements of the marketing mix including new product development, promotion, pricing, and distribution will be covered. This course carries three Hudson Valley Community College (HVCC) credits for those students who choose this option. A tuition fee is required. This course is open to students in grades 10-12.

555 BUSINESS MANAGEMENT**Either Semester ½ Unit**

This course is a 200 level college course for students in grades 11 and 12. A minimum overall average of 85 or greater is recommended.

This course introduces students to essential business management skills and practices, with a focus on the corporate business environment. Topics covered include key managerial functions, the evolution of management, personality and qualities best for leadership, organizational culture, corporate social responsibility, human resource management and managing employees from diverse background, planning and managing strategy and dealing with changes in the global business environment. Concepts are reinforced with project-based learning; which also help students develop leadership, team building, problem solving, and time management skills. This course carries three Hudson Valley Community College (HVCC) credits for those students who choose this option. A tuition fee is required for this option.

558 CAREER EXPLORATION INTERNSHIP PROGRAM (CEIP)**Either Semester ½ Unit**

Prerequisite: Senior year, by application only

This course allows students to complete an unpaid internship experience in one or two different careers that are of interest to them. Students will need to complete 54 hours in their internship experience and 27 hours of classroom instruction. In the past, students have explored careers in the fields of: business, criminal justice, education, engineering, health care, journalism, law, and many other occupations. Students planning to enroll in CEIP are required to have and provide their own transportation to and from their placements. They will also be required to make a commitment of four to five hours per week to meet their internship obligation. In addition, students will also have one or more class meetings a week for the classroom instruction. Students who choose to enroll in this elective course are expected to demonstrate a high level of responsibility and commitment appropriate for the workplace. Applications to enroll in this program may be obtained from the school counselors. Students will then be interviewed by members of the Business Education Department. This course is open to students in grade 12.

559 EXTENDED CAREER EXPLORATION INTERNSHIP PROGRAM (CEIP)**Second Semester ½ Unit**

This course is for students who would like a full year internship. (Supervisor Approval)

FULL YEAR CLASSES**518 PERSONAL AND BUSINESS LAW****Full Year 1 Unit**

Students in Personal and Business Law will gain a genuine respect for and understanding of the areas of law that affect them in personal and business applications. The curriculum in law includes careful consideration of the broad basis of law, an analysis of civil wrongs and crimes, and the sources and methods of enforcing the law. Other topics include special laws pertaining to minors, automobile insurance, and contracts. The midterm and final assessments are departmental. This course is open to students in grades 10-12.

519 SPORTS AND ENTERTAINMENT MARKETING**Full Year 1 Unit**

Do you like sports? Do you like TV, movies, video games or music? If so, then this is the course for you! In this course students will learn the basic functions of marketing and how those functions are applied to sports and entertainment. The basic functions of marketing that will be included in the course are: target market identification, marketing information management, financing, pricing, promotion, product/service management, distribution, and selling. Concepts are taught utilizing project-based learning and practical application assignments. The midterm and final projects are departmental. This course provides students with the opportunity to attend a sports business day hosted by The New York Jets at Met Life Stadium. This course is open to students in grades 9-12.

540 MICROSOFT OFFICE CERTIFICATION**Full Year 1 Unit**

This course provides students with hands-on experience learning and applying intermediate and advanced features and functions related to word processing, spreadsheets, presentation development and database management using the Microsoft Office Suite (specifically Access, Excel, PowerPoint and Word) and cloud-based programs on the Google platform. To be successful in this course, students should have some familiarity with Microsoft Office Applications. The final examination is a departmentally-developed computer project. The first semester of this full year course carries three Hudson Valley Community College (HVCC) credits (a tuition fee is required for this option). At the conclusion of the course, students will be prepared to take the Microsoft Office Specialist (MOS) Certification exams in Access, Excel, PowerPoint and Word. The MOS Certification exams will be administered at Shaker High School at no cost to students.

This course is open to students in grades 10-12.

553 COLLEGE ACCOUNTING (P)**Full Year 1 Unit**

Prerequisite: Passing grade on Common Core Algebra Regents Exam.

This course provides a complete, modern course in accounting and satisfies the requirements of both accounting majors and non-majors. During the first semester students will receive instruction in the fundamental theory and practice of accounting with application in sole proprietorship. Units of study have been designed to present the principles of double entry; design and use of books of account; control accounts and subsidiary ledgers; preparation of worksheet; payroll and payroll taxes; valuation reserves; closing books and preparation of simple forms of profit and loss statements and balance sheets. In the second semester, this course is designed to provide treatment of concepts and principles, plant assets, partnerships, corporations, cash flow and financial statement analysis, and to provide opportunity for enrichment through elementary data processing and its application to accounting systems. This course carries three University of Albany credits for those students who choose this option. A tuition fee is required for this option. This course is open to students in grades 10-12.

526 CAREER DEVELOPMENT (P)**Full Year 1 Unit**

Prerequisite: By supervisor permission only.

This course will build students' knowledge about the world of work, explore career options, and relate personal skills, aptitudes and abilities to future career decisions. Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings. Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace. These competencies will include: basic skills, thinking skills (i.e. problem solving, applying knowledge to new and unfamiliar situations), personal qualities (i.e. self-management, planning, organizing), interpersonal skills, technology, managing information, managing resources, and systems (understanding and working within natural and constructed systems). Semester one will be classroom oriented, while semester two will focus on work-based learning opportunities at Shaker High School. This course is open to students in grades 10-12.

****This course is applicable to those students pursuing a NYS CDOS Commencement Credential.**

ENGLISH

The Shaker English Department offers students multiple pathways for fulfilling New York State's required four years of coursework in English Language Arts. Students in grades 9-11 may take Next Generation ELA standards aligned courses at the regents, or honors level. Juniors who qualify may enroll in Advanced Language and Composition. Seniors may select two semester long courses from a varied array of elective courses, or may choose to enroll in a University in the High School English course, a Syracuse University Project Advance course, or an Advanced Placement offering. All students are required to pass the Common Core English Regents, a skills-based exam offered during junior year.

011 ENGLISH 9H (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: Recommendation of the 8th grade English teacher based on multiple measures including the IReady reading diagnostic, and the New York State ELA exam.

This course requires extensive reading across a variety of genres and authors. Through consistent close reading students will develop academic vocabulary and a critical view of the world around them. Students will write regularly - for a variety of purposes and audiences - with the expectation of advanced use of diction and syntax to effectively convey meaning. The rigor of this course requires strong time management skills and a high level of motivation. As the year progresses, the scaffold of text complexity will challenge students, bringing them to a new interpretive and analytical ability level. Summer reading required.

012 ENGLISH 9R**NCAA Approved Course | Full Year 1 Unit**

This course is designed to teach skills in reading comprehension, research, interpretation of literature, composition, language use, vocabulary, and informational literacy. The curriculum includes analysis of classical and contemporary literature, as well as of nonfiction pieces. In addition to full-length novels and dramatic works, students will study poetry, short stories, and essays. Vocabulary development is achieved through the study of literature-based words with a focus on academic vocabulary. Reading instruction emphasizes close reading of texts to form evidence-based analyses. Writing instruction includes an emphasis on using evidence from a variety of sources to formulate an argument. Speaking and listening skills are emphasized in rigorous evidence-based conversations about texts. The final examination is departmental and focused on reading texts closely and utilizing textual evidence to support claims.

021 ENGLISH 10H (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: English 9H with a Final School Mark of 85; English 9R with a Final School Mark of 95 and teacher recommendation.

This course emphasizes a close reading of British and other world literature including fiction, drama, poetry and the essay. Students conduct independent research based on literary criticism, engage in rich and rigorous evidence-based conversations about text, and analyze and respond to literature through sophisticated writing activities in preparation for the Common Core English Regents Exam administered during junior year. Summer reading required.

022 ENGLISH 10R (P)**NCAA Approved Course | Full Year 1 Unit***Prerequisite: English 9.*

This course emphasizes close reading of fiction, drama, poetry, and informational texts. Vocabulary and grammar are studied formally and within the context of writing. Students conduct independent research, participate in rich and rigorous evidence-based conversations about texts, and respond to literature through various mediums. Students will learn to write for a variety of audiences and purposes including writing that emphasizes use of evidence from sources to inform or make an argument. The final examination is departmental and focuses on critical reading and writing. Summer reading is strongly recommended.

055 AP LANGUAGE AND COMPOSITION (P)**NCAA Approved Course | Full Year 1 Unit***This course is open to students in grades 11 and 12.*

Prerequisite: English 10H or 11H with a Final School Mark of 85 and teacher recommendation. English 10R or 11R with a Final School Mark of 95 and teacher recommendation. This course aligns to an introductory college-level writing curriculum, which requires students to utilize the tools of rhetoric to develop evidence-based argumentative and close reading essays that proceed through several drafts and are shared in small workshopping groups. Throughout the course, students develop their writing voice by making purposeful stylistic choices. Additionally, students analyze rhetorical elements and their effects by reading a variety of nonfiction texts from many disciplines and historic periods. Q1 work focuses on TWO summer reading books, which must be completed prior to the start of the course. Juniors enrolled in this class are required to take the Advanced Placement Language and Composition Exam as well as the Common Core English Regents Exam.

031 ENGLISH 11H (P)**NCAA Approved Course | Full Year 1 Unit***Prerequisite: English 10H with a Final School Mark of 85; English 10R with a Final School Mark of 95 and teacher recommendation.*

This course combines a survey of American literature with instruction in advanced writing and reading skills. Students are expected to read extensively and to undertake close readings of short stories, poems, essays, plays, and novels. Students will also regularly participate in rich and rigorous evidence-based conversations. Writing focuses on all forms of exposition by emphasizing literary analysis. Students will conduct research projects using evidence from fiction and nonfiction sources to analyze and evaluate a literary text. The final examination for this course is the Common Core English Regents Exam, which is a graduation requirement. Summer reading required.

032 ENGLISH 11R (P)**NCAA Approved Course | Full Year 1 Unit***Prerequisite: English 10R*

This course offers a comprehensive study of reading skills, focusing on genres of American literature including novels,

dramas, short stories, essays, and poetry. Students will gain competency with writing in the following modes: analytical writing, poetry, personal narrative, and research-based writing. Students will identify and analyze key ideas and details in a wide range of complex and challenging literary and nonfiction works. There will be a focus on how the author's craft impacts the meaning and purpose of a text. Students enrolled in this course are required to take the Common Core Regents Exam, which is a graduation requirement.

941R ENGLISH AIS LAB**941A****No credit**

Academic intervention services in English are offered through this remedial lab. Students who have failed the Common Core English Regents Exam are required to take the lab until they achieve success on the Regents exam. Students who are in danger of failing the Common Core English Regents Exam are also scheduled for this lab in order to better prepare for this test.

English 12 Electives

It is the philosophy of the English Department that the senior year provides a unique opportunity for the students to select specific English Language Arts content that interests or intrigues them. All of the electives are designed to further prepare students for college and career readiness in alignment with the Next Generation reading and writing standards.

The students are grouped heterogeneously in most of the elective courses. It is the belief of the English Department faculty that students benefit from interaction with a variety of their peers and that the range of ability levels that are represented enriches the courses.

Seniors may take one or more additional semester courses to earn elective credit or complete a five-year sequence in English. Juniors may enroll in English electives to earn credit where class size will permit. The selection of English electives in the junior year is not intended as a substitute for English 11 or as a substitute for the senior year English requirement.

044 SPORTS IN LITERATURE**NCAA Approved Course | Either Semester ½ Unit**

This semester-long course uses literature, poetry, essays, journalism, and films to illuminate and refine our understanding of the impact of sports on our personal and social lives. The NCAA Eligibility Center requirements, Title IX legislation, Propositions 16/48, and the role sports play in defining values are the central issues studied. Weekly seminar discussions on current controversial issues in sports, based on research students complete, require student participation. Students who enroll in this course must demonstrate a serious interest in reading and must be willing to contribute regularly to weekly discussions.

041 WRT 114: INTRODUCTION TO CREATIVE NONFICTION (P)**NCAA Approved Course | First Semester ½ Unit**

Prerequisite: English 11H or a Final School Mark of 85 in English 11R and teacher recommendation.

This one-semester, college-level course provides an introduction to creative nonfiction (CNF), a genre that encompasses many kinds of prose: flash nonfiction/prose poetry, narrative/lyric essay, culture essay, to name a few. CNF writers almost always—in some way or other—focus on the tensions that emerge between individuals and the world around them. Thus, this course requires writing about oneself and others in the context of a broader culture. Students will have the freedom to explore a wide range of topics and experiment broadly with voice, style, form, the use of research, and elaborate revision. This is an intensive writing class in which students engage in writing workshops in class, including brainstorming and freewriting activities, and structured peer to peer critiques. Additionally, students are required to complete frequent readings related to craft as well as published exemplars of the genre. Fee required to receive 3 course credits through Syracuse University's Project Advance.

047 SCIENCE FICTION AND FANTASY**NCAA Approved Course | Either Semester ½ Unit**

This one-semester English course involves reading and writing centered on Science Fiction and Fantasy. This course will prepare students for college-level reading and writing while exploring themes and concepts in the Fantasy and Science Fiction genres. This course will be structured similarly to traditional college-level introductory courses in literature and composition. The course covers writing topics such as creative writing, expository composition, and research writing. These topics are all taught within the traditional structure and support typical of Shaker's high school level classrooms. Students with strong interests in either Fantasy or Science Fiction are highly encouraged to take this course.

040 CREATIVE WRITING**NCAA Approved Course | Either Semester ½ Unit**

The aim of this first- or second-semester course is to create a community of writers who will study elements of writers' craft and write in a variety of genres, including short stories, creative nonfiction, and (or) poetry. Students choosing this course should be prepared to make daily entries in writers' journals that will count for a weekly grade. Students will be expected to share their own pieces for discussion and criticism frequently and to write regularly for Visions, Shaker's award-winning literary magazine. In addition to shorter exercises, projects may include writing a 10,000-word novel as part of NaNoWriMo or writing a complete poetry collection in celebration of National Poetry Month.

062 FILM CRITICISM**Either Semester ½ Unit**

This one-semester course is an introduction to the art of film. Significant American films are used to study the techniques of filmmaking and film genre. Students are expected to read some film criticism and react to it in class discussion and through their writing. Several short papers are required.

069 PUBLIC SPEAKING**NCAA Approved Course | Either Semester ½ Unit**

This second-semester course is designed to help students develop introductory-level mastery of major modes of speech and communication. Students learn to conduct themselves in one-to-one communication, during an interview, and informal group presentations. They prepare speeches taking into account topic, purpose, audience, organization, and outlining. Practical research and critical thinking skills are emphasized throughout this course. Students are required to give several speeches.

048 JOURNALISM**NCAA Approved Course | Either Semester ½ Unit**

This one-semester course is a study of modern journalism and the media's impact on contemporary society. The course will foster critical thinking skills as it teaches students how to be both thoughtful, perceptive consumers of contemporary mass media and critics of the media's impact. Coursework will include student-produced podcasts, reviews, infographics, photojournalism, and documentaries. Students will study the characteristics of news, feature, and in-depth articles, as well as opinion pieces. Student pieces will be workshopped in class and shared for publication in The Bison, the school online newspaper.

052 EXPLORING CULTURES THROUGH LITERATURE**NCAA Approved Course | Either Semester ½ Unit**

This first- or second-semester course is a survey of non-Western literature. Areas of emphasis will be Africa, Asia, and the Middle East and the Indian subcontinent. The class will study various fiction, nonfiction, and cinematic works as cultural products reflective of embedded cultural values. The study of these works will also allow the class to explore issues arising from the experience of living in an increasingly global world.

051 READING LITERATURE**NCAA Approved Course | Either Semester ½ unit**

Prerequisite: Final school mark of 80 in English 11H or Final School Mark of 85 in English 11R.

This one-semester, college-level course provides an introduction to reading literature, with emphasis on developing critical skills and reading strategies through the study of a variety of genres, themes, historical periods, and national literatures. Students can earn three State University of New York credits upon successful completion of this course.

087 INTRODUCTION TO PHILOSOPHICAL PROBLEMS**NCAA Approved Course | Either Semester ½ unit**

Thinking philosophically involves pursuing reasons for our most deeply held beliefs and using argument to answer our most fundamental questions about ourselves and the world around us. This course will focus on central questions about personal identity, the meaning of life, the nature and value of love and friendship, morality and justice. In virtue of what are you the same person over time? What does it mean to live a meaningful life, and how do love and friendship play a part? What is the nature of morality? What are our moral obligations? What does it mean to say persons are equal? What is justice? As we pursue these questions, we will come to understand what it means to think, read, and write carefully, openly, and honestly about our lives. Students can earn three State University of New York credits upon successful completion of the course.

053 AP ENGLISH LITERATURE AND COMPOSITION (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: English 11H or AP Language with a Final School Mark of 85 and teacher recommendation.

Enrollment in this full-year course is restricted to students who have demonstrated extraordinary ability and achievement in their high school English courses. Extensive reading, intensive study of literary works, and concentration on critical and analytical writing skills should prepare the serious English student for the Advanced Placement Examination. The Advanced Placement Examination is required of all students taking this course. Students who do not take the exam will not receive AP course credit. A fee is charged by the College Board and must be paid or the student may be removed from the course.

055 AP LANGUAGE AND COMPOSITION (P)**NCAA Approved Course | Full Year 1 Unit**

This course is open to students in grades 11 and 12. Please see previous page for course description and prerequisite.

045 READERS' WORKSHOP

This course is a one-semester English class for people who enjoy reading. It offers students the opportunity to read and respond to a wide array of books. Students will create self directed reading projects, make independent choices of reading materials, and experiment with different kinds of responses to evaluate the impact of the text. In addition to self-selected books, students will also read supplemental materials to help them analyze and reflect on their own reading process.

050 ENGLISH COMPOSITION I (FORMERLY NONFICTION)**First Semester ½ Unit**

Course Description: This course is designed to help students improve their writing ability through concentration on the writing processes: prewriting, writing, and revision. Other concerns of the writer, particularly audience, diction, sentence structure, figurative language, and correctness, will be addressed. Research techniques, library orientation, and small group in-class discussions of student writing are also included. Students in this course are eligible to enroll in the Hudson Valley Community College University in the High School program. This curriculum is aligned with HVCC English Composition I. Students who enroll and successfully pass the course are eligible to earn 3 credit hours from HVCC.

066 ENGLISH INTERNSHIPS: WRITING CENTER TRAINING AND ADVANCED WRITING CENTER TRAINING**Either Semester ½ Unit**

This internship is designed to train students in grades 9-12 to be a part of our student-run and student-staffed Shaker Writing Center. After establishing a working knowledge of writing center theory and practice, interns will be expected to share and discuss their writing as they gain an understanding of how to run critical yet non-judgmental peer-to-peer writing consultations. In addition, interns will be expected to create resources for writers and to complete inquiry projects that continue to make our writing center an asset to the North Colonie community. Successful interns demonstrate the ability to self-motivate, a willingness to lead and participate in small and large group conversations, an enthusiastic desire to help others express and reflect on their own ideas, and a genuine interest in the craft of writing.

Students are required to submit an application, along with teacher recommendations. Once accepted, interns must maintain an overall GPA above a 90, with a semester average of at least a 93 in English. Upon successful completion of the training, interns may serve as writing consultants at the Shaker Writing Center.

FAMILY AND CONSUMER SCIENCES

The Family and Consumer Sciences department offers courses that provide students with real-world learning opportunities. The purpose of this program is to prepare students to be competent, confident and caring in managing their personal, family and work lives.

Shaker High School Students can gain that knowledge with their choice of **2 career pathways** in the Family and Consumer Sciences Department. Each career path or sequences of courses is approved by the New York State Education Department and includes a professional exam, work based experiences and at least one college level course. Students who complete all the required courses and pass the professional exam will receive the Regents CTE endorsement on their diploma.

NYSED Approved FACS Career Pathways:

1. Human Services

2. Nutrition, Health and Wellness

HUMAN SERVICES

Grade 9 #623 Introduction to Early Childhood ½ credit
#620 Adolescent Development ½ credit

Grade 10 #617 Food and Nutrition across the Life Span
½ credit
#610 Gerontology ½ credit

Grade 11 #629 Child Development ½ credit + 3 HVCC credits
#531 Financial Decision Making ½ credit

Grade 12 #628 Careers in Human Service

HEALTH, NUTRITION AND WELLNESS

Grade 9 #617 Food and Nutrition across the Lifespan ½ unit
#624 Fitness and Nutrition ½ unit

Grade 10 #627 Global Food and Nutrition ½ unit
#610 Gerontology ½ unit

Grade 11 #623 Into to Early Childhood. ½ unit
#628 Careers in Human Services ½ unit

Grade 12 #531 Financial Decision Making (CFM) ½

Other Career areas and course recommendations:

If students are interested in **Education, Social Work and Psychology** they should consider taking the following courses:

- › Intro to Early Childhood ½ Unit
- › Child Development ½ Unit
- › Adolescent Development ½ Unit
- › Careers in Human Services ½ Unit
- › Families in a Diverse World ½ Unit
- › Gerontology ½ Unit
- › Career Exploration Internship Program (CEIP) 1 Unit

Students are interested in **Nutrition, Dietetics, Sports Medicine, or a Medical Field (Nursing, Physical and Occupational Therapy, etc.)** they should consider taking the following courses:

- › Food and Nutrition ½ Unit
- › Fitness and Nutrition ½ Unit
- › Adolescent Development ½ Unit
- › Intro to Early Childhood ½ Unit
- › Careers in Human Services ½ Unit
- › Gerontology ½ Unit
- › Career Exploration Internship Program (CEIP) 1 Unit

Students are interested in the **Culinary Arts** they should consider taking the following courses:

- › Food and Nutrition ½ Unit
- › Fitness and Nutrition ½ Unit
- › Global Food and Nutrition ½ Unit

Students are interested in a career as an **Interior Designer, Clothing Designer or Fashion Merchandiser**, they should consider taking the following courses:

- › Textile and Design** ½ Unit
- › Housing and Interior Design ** ½ Unit
- › Clothing Productions ½ Unit

Course Descriptions

Note: #625 and #626 may be used towards the Fine Arts Graduation requirement.

610 GERONTOLOGY

Second Semester ½ Unit

Adolescent Development is recommended.

In this course students will explore the field of gerontology. Students will learn about the process of aging and the typical changes that occur in the life of an elderly person. Further, students will understand how to respond to the needs of the elderly due to a variety of changes that the elderly experience. Discussions will highlight life changes that relate to such topics as housing and self-care. Students will have the opportunity to interact with mature adults and professionals in living and working environments, in preparation for potential employment in Gerontology. This course will ultimately allow students to develop positive attitudes toward the elderly and understand their contribution to society. This course is open to students in grades 9-12.

617 FOOD AND NUTRITION ACROSS THE LIFE SPAN

First Semester ½ Unit

This course will help you development an understanding of basic cooking and nutritional concepts through real life, hands on experiences. The course will begin with nutrition and kitchen safety. Students will use this knowledge during dietary planning and food preparation. Other topics include influences on food choices and food technology. Students will learn the fundamentals of cookery and gain practical experience preparing foods. This course is open to students in grades 9-12.

620 ADOLESCENT DEVELOPMENT**Second Semester ½ Unit**

In this course, stages of the life cycle will be explored as well as how the adolescent interacts with others in these stages. Several theorists will be introduced to students. Students will be reading a novel of their choice that will allow them to explore current adolescent issues. Students will investigate and engage in several community service activities. Past activities include working with local nursing homes and the Ronald McDonald House. This course is open to students in grades 9-12.

621 FAMILIES IN A DIVERSE WORLD**First Semester ½ Unit**

Learn about self-identities and a person's role in their family unit. Examine the struggles that families face, and learn techniques used by family members to work through those struggles. Identify the different family structures and interactions in the United States and compare them to family units in other cultures and countries. Explore the steps necessary for a career working with families. Students planning on careers in Sociology, Counseling, Adolescent Development, Gerontology, and Family Development will gain an understanding of who makes a family unit and how family units function. This course is open to students in grades 9-12.

623 INTRODUCTION TO EARLY CHILDHOOD**First Semester ½ Unit**

In this course, students will gain an awareness of the skills necessary to work effectively with children. Topics include: parenting skills, fetal development and childbirth, and the physical, cognitive, social and emotional development of the child from infancy to preschool. This course consists of class discussion, projects and guest speakers. It is suggested for students considering a career in education, psychology, daycare, nursing or parenthood. This course is recommended as the foundation for the Child Development course offered for Hudson Valley Community College Credit. This course is open to students in grades 9-12.

624 FITNESS AND NUTRITION**First Semester ½ Unit**

This course focuses on lifelong wellness through the development of exercise plans, healthy food selection and food preparation techniques. The course begins by assessing our personal health and wellness with a variety of methods. Students will then apply food preparation techniques related to the Dietary Guidelines for Americans. Food will be prepared and sampled to enhance each unit experience. Further, students will analyze special diets, examine the nutrient groups, learn about a variety of career opportunities in this field, and research the benefits of exercise. This course is open to students in grades 9-12.

625 TEXTILE AND DESIGN ****First Semester ½ Unit**

***May be used towards the Fine Arts Graduation requirement.*

If clothes, fashion and personal appearance are your interests, this is a course for you. You will have the opportunity to explore fashion, design, and investigate various aspects of clothing from historical styles to current fashions. Further, you will understand the art of clothing design and construction by creating your own garments. Join students who are interested in a career in fashion design and merchandising/promotion, fashion styling and selection for other people, or just learning how to construct garments. This course is open to students in grades 9-12.

626 HOUSING AND INTERIOR DESIGN ****Second Semester ½ Unit**

***May be used towards the Fine Arts Graduation requirement.*

In this course you will have the opportunity to create a model home by applying concepts of your future lifestyle and your personal housing wants and needs. Students will learn about a variety of housing styles and historical architectural styles when selecting a home. In addition, students will apply design concepts when selecting wall and floor coverings for the interior of a home using design software. Students interested in careers such as design, interior decorating, structural engineering, and real estate will find this course especially enjoyable and worthwhile. This course is open to students in grades 9-12.

627 GLOBAL FOOD AND NUTRITION**Second Semester ½ Unit**

Food is prepared here in America with ethnic roots from all over the world. First, we will investigate the ethnic foods and heritage common to regions in the U.S. Then we look overseas to find out what and how foods are prepared abroad. Be prepared to work in a team to cook, clean and sample ethnic dishes. Join us and you will brush up on your geography skills, social studies, and cultural awareness while getting skilled at dinner preparations. This course is open to students in grades 9-12.

628 CAREERS IN HUMAN SERVICES**First Semester ½ Unit**

If you have an interest in better understanding how to help or work effectively with people across the life cycle, this course is for you. The Human Services field has an increasing number of job opportunities available helping all ages in time of need or crisis. Study and examine the ways in which community agencies help address them. Join students seriously interested in investigating a career in the human services field and take part in an opportunity to job shadow a professional working in a career that interests you for one day of six (6) hours. This course is open to students in grades 9-12.

629 CHILD DEVELOPMENT (P) (HVCC CREDIT AVAILABLE)**Second Semester ½ Unit**

Prerequisite: Introduction to Early Childhood is recommended.

Child development from conception through preadolescence is explored and related to current research and theories. This course broadens the student's knowledge of the many systems which influence development. The interdependence among all aspects of growth and development is emphasized. The needs of infants and children at each stage are related to their daily care and educational programs. Join other students who are interested in information that can be applied to careers in teaching, counseling/psychiatry, or social work or for the role as a future parent.

Optional: Three Hudson Valley Community College (HVCC) credits available with paid tuition. 30 Hours of informal observation is required to receive college credit.

This course is open to students in grades 11-12.

630 CLOTHING PRODUCTION (P)**Second Semester ½ Unit**

Prerequisite: Textile and Design is recommended.

In this course students will have the opportunity to be their own clothing designer and expand sewing skills by creating a pattern based on appropriate body measurements. Students will further create the garment using appropriate sewing techniques. This course is designed for students interested in fashion design, clothing construction or furthering their sewing skills. This course is open to students in grades 9-12.

HEALTH EDUCATION

Health is a condition of well-being that is required for the development of each individual and for society as a whole. Optimal health is dependent upon knowledge, attitude and behavior. The health courses offered are based upon New York State and North Colonie Curricula and have been approved by the Board of Education. The curriculum focuses on seven skill areas: Planning and Goal Setting, Decision Making, Communication, Stress Management, Self-Management, Relationship Management and Advocacy. Topics are presented in connection to a specific skill area. The instructional focus is on promoting abstinence and to provide accurate, age appropriate information to support a student's ability to make informed decisions, to problem solve, to be safe and to achieve a high level of wellness. Health is offered during the sophomore year and students are required to pass this course in order to graduate. Students entering Shaker High School in grade 12 will be required to take Health unless the requirement was fulfilled in a previous school.

901 HEALTH**Either Semester ½ Unit**

In this course topics will include physical activity and nutrition, body image, addiction, alcohol, nicotine and other drugs, personal safety, mental health, suicide prevention, characteristics of healthy and unhealthy relationships, abstinence, *contraception use and rates of effectiveness/ineffectiveness, sexually transmitted infections and the HIV/AIDS curriculum which includes *prevention lessons.

**According to Commissioner's Regulation 135.3, AIDS education should, at a minimum, provide accurate information concerning the nature of the disease, methods of transmission, and methods of prevention. No pupil shall be required to receive instruction concerning the methods of prevention of AIDS if the parent or legal guardian of such pupil has filed with the principal of the school which the pupil attends a written request that the pupil not participate in such instruction with an assurance that the pupil will receive such instruction at home. Such exempt pupils, however, are still required to receive instruction concerning the nature of the disease and methods of transmission.*

Contact the Supervisor of Secondary PE, Health and Athletics for "opt out" information for lessons concerning the methods of prevention of AIDS and contraception use.

MATHEMATICS

The Mathematics Department offers a variety of courses at each grade level to maintain interest and to encourage students of all ability levels to continue their study of mathematics for four years. The courses are designed to prepare students for success in the future by developing mathematical problem-solving skills, knowledge, and critical thinking skills.

GROUPING

The mathematics courses are grouped according to ability and interest in mathematics. The Advanced or Honors level courses are for students with high interest and ability. For all courses, prerequisite grade performance and teacher recommendations are strictly adhered to.

GRAPHING CALCULATORS

Graphing calculators are required on the New York State Math Regents examinations, as well as on the Advanced Placement examinations. It is recommended that students purchase their own calculators. They will be used in daily lessons, assignments, and assessments throughout the year to develop students' mathematical reasoning skills and to appropriately use technology to aid in problem solving. The TI-84 (Plus or Plus Silver Edition) is recommended for student use. The TI-84 will be used for classroom demonstrations.

212 ALGEBRA 1 (P)

NCAA Approved Course | Full Year - 1 Unit

Prerequisite: Successful completion of Math 8; C+ grade performance or better recommended.

This course is required for entrance into most colleges and is a prerequisite for further study in mathematics and science at the Regents level. The purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. This course is based on the Common Core Learning Standards and will include five critical areas: relationships between quantities and reasoning with equations and their graphs; descriptive statistics; linear and exponential functions; polynomial and quadratic expressions, equations, and functions; and modeling with equations and functions.

The final examination in this course is the NYS Common Core Algebra Regents exam.

215 COMMON CORE ALGEBRA 1A (P)

NCAA Approved Course for .5 credit only

Full Year - 1 Unit

Prerequisite: Successful completion of Math 8.

This course will serve as the first year of a two-year program covering the NYS Common Core Algebra curriculum. Students will address many of the same curriculum topics that students

in Algebra 1 study, with a concentration on the first half of the Algebra 1 curriculum. Students are supported with smaller class sizes, and focus is placed on increasing relevance and applications of math concepts. This course, combined with Common Core Algebra 1B in the following year, culminates with the NYS Common Core Algebra Regents exam. The final examination in the course is a local departmental exam.

216 COMMON CORE ALGEBRA 1B (P)

NCAA Approved Course for .5 credit only

Full Year - 1 Unit

Prerequisite: Successful completion of Common Core Algebra 1A.

This course will serve as the second year of a two-year program covering the NYS Common Core Algebra Curriculum. Students will address many of the same curriculum topics that students in Algebra 1 study, with a concentration on the second half of the Algebra 1 curriculum. Students are supported with smaller class sizes, and focus is placed on increasing relevance and applications of math concepts. This course culminates with the NYS Common Core Algebra Regents exam.

213 UNIFIED 1 ALGEBRA (P)

NCAA Approved Course for .5 credit only

Full Year - 1 Unit

Prerequisite: Successful completion of Math 8.

This is the first year of a four-year program that is designed for our most challenged math learners. This program will allow students to satisfy the math requirements necessary for graduation. Students take the NYS Common Core Algebra Regents exam at the end of the second year. In this course, topics include equations and inequalities, polynomials, geometry, introduction to trigonometry, and graphing of lines. Problem solving and the use of math in real-life situations are integrated throughout the course. The final exam in this course is departmental.

220 APPLIED ALGEBRA & GEOMETRY (P)

Full Year - 1 Unit

Prerequisite: Successful completion of Algebra 1. Recommended for students who achieve a 73 or lower in CC Algebra 1.

This course is designed for students who experienced difficulty with Algebra 1 and who would benefit from gaining stronger foundational algebra skills to achieve success in future math courses. Algebra topics include: Linear Functions, Linear Inequalities, Quadratic Functions and Systems of Inequalities and Equations. Geometry topics include: Transformational Geometry, Triangular Relationships, Quadrilaterals, Polygons and Solids. Instructional strategies in the course will emphasize application style questions and interdisciplinary connections. The activities will utilize manipulatives, Chromebooks and Mathematical software to assist the students with a deeper understanding. If successful, students in this course will take #236 Intermediate Algebra 2 and Geometry in their junior year and then #238 College Algebra & Trigonometry in their senior year. The final exam in the course will be a departmental local final exam.

221 GEOMETRY HONORS (P)**NCAA Approved Course | Full Year - 1 Unit**

Prerequisite: Minimum final average of 93 in Algebra 1.

In addition to an enriched version of the standard Geometry curriculum, honors students will be afforded the opportunity to more extensively study selected mathematical topics. Increased emphasis will be placed on explanations and justifications of procedures and thought processes. Students will complete honors assignments that will include nonroutine problem sets. The final examination in this course is the NYS Common Core Geometry Regents exam.

222 GEOMETRY (P)**NCAA Approved Course | Full Year - 1 Unit**

Prerequisite: Minimum final average of 73 in Algebra 1 or 90 in Common Core Algebra 1B or teacher recommendation.

This course includes an extensive study of geometric relationships, informal and formal geometry proofs, coordinate geometry, transformational geometry, constructions and circles. The final exam in this course is the NYS Common Core Geometry Regents exam.

223 UNIFIED 2 ALGEBRA (P)**NCAA Approved Course for .5 credit only****Full Year - 1 Unit**

Prerequisite: Successful completion of Unified 1 Algebra.

This is the second year of a four-year-program that is designed for students with weak math skills. This program will allow students to satisfy the math requirements necessary for graduation. In this course, topics include equation solving, statistics, probability, polynomials, geometry, and graphing. The final examination in this course is the NYS Common Core Algebra Regents exam.

231 COMMON CORE ALGEBRA 2 HONORS (P)**NCAA Approved Course | Full Year - 1 Unit**

Prerequisite: Minimum final average of 93 in Algebra 1 and a minimum final average of 95 in Geometry Regents or minimum final average of 90 in Geometry Honors.

In addition to the material offered in Common Core Algebra 2, the student will study selected enrichment topics such as cubic equations, even/odd functions, symmetry tests, natural logarithms, and the graphs of six trigonometric functions. Increased emphasis will be placed on explanations and justifications of procedures and thought processes. The final examination in this course is the NYS Common Core Algebra 2 Regents exam.

232 COMMON CORE ALGEBRA 2 (P)**NCAA Approved Course | Full Year - 1 Unit**

Prerequisite: Minimum final average of 75 in both Algebra 1 and Geometry/Geometry Honors.

This course includes an in-depth study of the real and complex number systems, a review and extension of functions and transformations, work with exponents, logarithms, trigonometric relationships and probability, and an extensive unit on statistics. The final examination in this course is the NYS Common Core Algebra 2 Regents exam.

233 UNIFIED 3 INTERMEDIATE ALGEBRA (P)**NCAA Approved Course for .5 credit only****Full Year - 1 Unit**

Prerequisite: Successful completion of Unified 2 Algebra.

This is the third course of a four-year program that is designed for students with weak math skills. This course will allow students to satisfy their math requirements necessary for graduation. In this class, students will extend their algebra skills beyond those included in the NYS Common Core Algebra curriculum. Topics covered will include factoring, quadratics, rational expressions, complex numbers, and a variety of consumer topics. The final examination in this course is a departmental exam.

234 COMMON CORE ALGEBRA 2A (P)**NCAA Approved Course for .5 credit only****Full Year - 1 Unit**

Prerequisite: Minimum final average of 65 in Geometry Regents.

This is the first year of a two-year extended Algebra 2 Regents program designed for the math student who has had academic difficulty in previous math courses and needs to satisfy the third year math requirement and/or meet the eligibility requirements for an Advanced Regents diploma. Students will study the same curriculum as that in Algebra 2 Regents course, but with less emphasis on the theory of trigonometry. This course will cover approximately two-thirds of the Algebra 2 Regents material, with the remainder covered in the second year, Common Core Algebra 2-B, of the program. The final examination in this course is a departmental exam.

235 COMMON CORE ALGEBRA 2B (P)**NCAA Approved Course for .5 credit only****Full Year - 1 Unit**

Prerequisite: Minimum final average of 75 in Common Core Algebra 2A.

This is the second year of a two-year extended Common Core Algebra 2 program. The course will cover the final one-third of the Algebra 2 Regents curriculum, including basic trigonometric functions, graphs, identities, and equations. The NYS Common Core Algebra 2 exam will be given in June. During second semester, students will investigate several precalculus topics and will prepare for the Common Core Algebra 2 Regents exam.

236 INTERMEDIATE ALGEBRA 2 & GEOMETRY (P)**Full Year - 1 Unit**

Prerequisite: Successful completion of Common Core Algebra 1B or Applied Algebra & Geometry or following a placement evaluation, permission by the Department Supervisor.

This course is designed for students who have taken the two year stretched Common Core Algebra program or Applied Algebra & Geometry. The curriculum emphasizes intensive review of elementary algebra and its extension covering variations, exponents, logarithms, quadratic equations, functions and their graphs, and systems of equations. It also includes selected topics from probability and statistics. This course is a prerequisite to

the HVCC UHS senior year math elective, College Algebra with Trigonometry. The final exam is a departmental exam.

238 COLLEGE ALGEBRA WITH TRIGONOMETRY (P)

NCAA Approved Course | Full Year - 1 Unit

Prerequisite: Successful completion of #236 Intermediate Algebra 2 and Geometry or following a placement evaluation or permission by the Department Supervisor.

Students in this course are eligible to enroll in the Hudson Valley Community College University in the High School program. This curriculum is aligned with HVCC Math 150 College Algebra with Trigonometry program and is instructed in the first semester of the school year. Students who enroll and successfully pass the course will earn four HVCC credits. The curriculum includes advanced algebra and trigonometry topics. For the second semester, students will cover selected Algebra 2 topics that will prepare them for taking a Pre-calculus course at the collegiate level. The midterm exam is a HVCC departmental final and the final exam is a local departmental final exam. Students wishing to enroll in the University Program at HVCC will be responsible for paying the reduced course credit fee.

ADVANCED PLACEMENT CALCULUS H (P)

Enrollment in this course is restricted to students who have displayed special effort and exceptional ability in mathematics and who are seeking advanced placement in college. The Advanced Placement examination is required of all students taking this course. Students who do not take the exam will not receive AP credit. A fee is charged by the College Board and must be paid or the student may be removed from the course.

241 AP CALCULUS AB (P)

NCAA Approved Course | Full Year - 1 Unit

Students electing this course are required to take the AP examination (AB) covering topics in differential and integral calculus. This course is equivalent to one semester of college calculus. Enrollment in Advanced Placement Calculus AB is based upon the student's:

1. Achievement of minimal final average of 90 in Common Core Algebra 2 and Precalculus or 85 in Algebra 2 Honors and Precalculus Honors.
2. Problem solving and analytical abilities.
3. Work habits and career plans.
4. Math teachers' recommendations.

242 AP CALCULUS BC (P)

NCAA Approved Course | Full Year - 1 Unit

Students electing this course are required to take the AP examination (BC) covering topics in differential and integral calculus, as well as topics in infinite series, advanced techniques of integration, polar and parametric equations, and vector functions. This course is equivalent to two semesters of college calculus.

1. Achievement of minimum final average of 93 in Common Core Algebra 2 Honors and Precalculus Honors.
2. Problem solving and analytical abilities.
3. Work habits and career plans.
4. Math teachers' recommendations.

243 UNIFIED 4 INTERMEDIATE ALGEBRA (P)

Full Year - 1 Unit

Prerequisite: Successful completion of Unified 3 Intermediate Algebra.

This is the final course of a four-year program that is designed for students with weak math skills. In this class, students will continue to focus primarily on intermediate algebra skills, along with selected geometry and trigonometry topics. The objective of this course is to strengthen a student's math foundation and provide readiness for future math courses at the post-secondary education level. The final examination in this course is a departmental exam.

244 PRECALCULUS HONORS (P)

NCAA Approved Course | Full Year - 1 Unit

Prerequisite: Minimal final average of 93 in Common Core Algebra 2 or 85 in Common Core Algebra 2 Honors.

In addition to an enriched version of the standard Precalculus curriculum, students in this course will be afforded the opportunity to more extensively study selected Precalculus and calculus topics. Increased emphasis will be placed on explanations and justifications of procedures and thought processes. Topics included in this course include advanced algebra; exponential and logarithmic functions; advanced graphing techniques; limits; and extensive differential calculus. This course is not part of the University in the High School program. The final examination in this course is departmental.

245 PRECALCULUS (P)

NCAA Approved Course | Full Year - 1 Unit

Prerequisite: Minimum final average of 75 in Common Core Algebra 2 Regents/Honors.

This college-level course is designed for the student who desires a strong background in math preparation for calculus at the college level or Advanced Placement Calculus AB. Topics in this course include advanced algebra, polynomial, trigonometric, exponential, and logarithmic functions; polar graphing, conic sections, matrices, limits and differential calculus. The final examination in this course is a departmental exam. If enrolled in the University in the High School program, students can earn three State University

of New York credits upon successful completion of this course. Juniors enrolled in Precalculus must earn a grade of 90 to be eligible for AP calculus AB.

246 TOPICS IN ADVANCED MATH E (P)

NCAA Approved Course | Full Year - 1 Unit

Prerequisite: Successful completion of Common Core Algebra 2.

This fourth-year math course is designed for the student who wishes to prepare for a noncalculus, college-level course as well as for students interested in the social sciences.

Topics studied in this course include polynomial, rational, and logarithmic functions; sequences and series; matrices and game theory; vectors; probability and statistics; set theory and logic. The final examination is departmental. If enrolled in the University in the High School program, students can earn three State University of New York credits upon successful completion of this course.

247 AP STATISTICS-PROBABILITY (P)

NCAA Approved Course | Full Year - 1 Unit

Prerequisite: Minimum final average of 80 in Precalculus. Students electing this course are required to take the AP examination in Statistics. Students who do not take the exam will not receive AP credit. This full-year, college-level course will provide background and practice in the presentation and analysis of statistical data involving frequency distributions, measures of center and spread normal distribution, hypothesis testing, design of experiments and simulation, and linear regression. Students who are considering a major in psychology, sociology, education, medicine, as well as science and mathematical fields should consider electing this course. A fee is charged by the College Board and must be paid or the student may be removed from the course. Students in this course will have the opportunity to enroll in the University in the High School Program, and can earn three State University of New York credits upon successful completion of this course.

248 COLLEGE CALCULUS 1 UHS

NCAA Approved Course | Full Year – 1 Unit

Prerequisite: Minimum average of 80 in Precalculus or 75 in Precalculus Honors.

This full-year, college-level course will provide background and practice in basic level calculus concepts. Topics in this course include limits and derivatives, differentiation rules, applications of differentiation, and integration. Students in this course will have the opportunity to enroll in the University in the High School Program and can earn three State University of New York credits upon successful completion of this course.

249 INTRODUCTION TO DATA SCIENCE

NCAA Approval Pending | Full Year - 1 Unit

Prerequisite: Successful completion of Geometry.

Would you like to gain access to a growing and exciting new career field that utilizes math, statistics, and computational thinking with real-world applications? If so, then this course is for you! Data science continues to evolve as one of the most promising and in-demand career paths for skilled professionals.

In this full-year course, students will learn to understand, ask questions of, and represent data through project-based units. Students will gain opportunities to understand the data science process of asking questions, gathering and organizing data, modeling, analyzing and synthesizing, and communicating their findings. This alternative high school mathematics pathway prepares students for AP Statistics.

949 COMPUTER SCIENCE 1E (P)

First Semester - ½ Unit

Prerequisite: Successful completion of Algebra 1.

This course will serve as an introduction to programming techniques using the Java language. Selecting algorithms will be stressed as students learn and apply computer commands dealing with variable and formula representation, formatting text, branching and looping techniques, one-dimensional arrays, and nested loop structures. The final examination in this course is departmental.

951 COMPUTER SCIENCE 2 E (P)

Second Semester - ½ Unit

Prerequisite: Computer Science 1 or, following a placement evaluation, permission of the Department Supervisor.

This course will extend Java programming skills previously learned in Computer Science 1. Topics that will be covered using the Java language include two-dimensional arrays, sorting and searching techniques, user-defined functions, subroutines, strings, graphics, gaming techniques, animation, and graphical user interfaces. The final examination in this course will be departmental.

952 ADVANCED PLACEMENT COMPUTER SCIENCE H (P)

Full Year - 1 Unit

Prerequisite: Minimum final average of 88 in Computer Science 2 and a minimum final average of 75 in Common Core Algebra 2 R/H, or following a placement evaluation, permission of the Math Department Supervisor.

This full-year course will concentrate on advanced programming techniques and topics using the Java language. Such topics as data structures, classes, use of algorithms, and programming methodology will be explored. Enrollment in this course is restricted to students who have displayed special effort and exceptional ability in computer science and who are seeking advanced placement in college. The Advanced Placement Examination is required of all students taking this course. Students who do not take the exam will not receive AP course credit. A fee is charged by the College Board and must be paid or the student may be removed from the course.

953 INTRODUCTION TO COMPUTER SCIENCE WITH MULTIMEDIA AND PYTHON**NCAA Approval Pending | Full Year - 1 Unit**

Prerequisite: Successful completion of AP Computer Science

This Siena College dual-enrollment course is a broad introduction to a variety of fundamental topics in computer science through the theme of multimedia. Using the Python programming language, students express themselves creatively and solve problems involving images, sounds, and animations. Students are also introduced to important computer science topics including data representation, computer organization, history and societal impact of computing, and artificial intelligence. Students taking this course at the high school can earn 3 college credits for a (flat) \$200 tuition rate. (Tuition is waived for students qualifying for free or reduced lunch.)

MUSIC

Three units in a performance course and two units in music knowledge courses. Band, chorus and orchestra grades WILL be included in computing class rank. Band, chorus and orchestra grades must be 90 or above for honor roll and 85 or above for merit roll.

671L BAND 9-10 E (P)**Full Year 1 Unit**

Prerequisite: Successful completion of Band in the preceding year or permission of the Department Supervisor.

The 9-10 Band enables students to further develop musicianship and skills on their band instruments and to experience live performance. Each band member is expected to participate in all assigned performances. Lessons are required of all students in band. Students are excused from regular classes to attend lessons. Students taking private music lessons will have the option of whether or not to participate in school lessons. A rotating schedule of lesson times is planned so no student should be excused from the same class more than once in each 4 weeks of school.

671T BAND 11-12 E (P)**Full Year 1 Unit**

Prerequisite: Successful completion of Band in the preceding year or permission of the Department Supervisor.

The 11-12 Band enables students to further develop musicianship and skills on their band instruments and to experience live performance. Each band member is expected to participate in all assigned performances. Lessons are required of all students in band. Students are excused from regular classes to attend lessons. Students taking private music lessons will have the option of whether or not to participate in school lessons. A rotating schedule of lesson times is planned so no student should be excused from the same class more than once in each 4 weeks of school.

943R MATH AIS LAB**943A****No Credit**

This lab will offer academic intervention services to two groups of students who will meet on separate rotations. The first group (Course #943R) are those students who have not yet taken or have not yet passed the New York State Common Core Algebra Regents examination and who will take the exam in January. The second group (Course #943A) are those students whose scores on the Eighth Grade state math assessment and/or teacher recommendation have indicated that they may require additional support in mastering the material in Algebra. Ninth graders enrolled in Algebra who are new to the district may also be scheduled for this lab. Students in this lab will prepare for the June Common Core Algebra Regents exam. Students in either lab will meet every other rotation.

674 WIND ENSEMBLE E (P)**Full Year 1 Unit**

Prerequisite: Required audition in Spring of previous year. Requirements for Wind Ensemble instrumentation will be followed as set forth by the New York State School Music Association (NYSSMA).

Students entering grades 9 through 12 may audition for Wind Ensemble. Each band member is expected to participate in all assigned band performances. Lessons are required of all students. Students taking private music lessons have the option of whether or not to participate in school lessons. Students are excused from regular classes to attend lessons. A rotating schedule of lesson times is planned so no student should be excused from the same class more than once in each 4 weeks of school. The Wind Ensemble will combine with members of the 11-12 Orchestra to perform as a Symphonic Orchestra.

672L CHORUS 9-10 E**Full Year 1 Unit**

Chorus 9-10 is in two sections. One section meets the same period as Band and Orchestra 9-10. Students in 9-10 Chorus will learn proper vocal techniques, music reading skills, breath control, and overall poise and confidence in their singing ability. The Chorus will perform music from many time periods and cultures. Each chorus member is expected to participate in all scheduled concerts for school and community audiences. Lessons are required of all students in Chorus. Students are excused from study hall and regular classes to attend lessons. A rotating schedule of lesson times is planned so that no student should be excused from the same class more than once every 5 weeks of school.

672T CHORUS 11-12 E**Full Year 1 Unit**

Chorus 11-12 is in two sections. One section meets the same period as 11-12 Band; one section meets the same period as Wind Ensemble and Orchestra 11-12. Students in 11-12 Chorus will continue to develop proper vocal techniques, music reading skills,

breath control, and overall poise and confidence in their singing ability. Each chorus member is expected to participate in all scheduled concerts for school and community audiences. Lessons are required of all students in Chorus. Students are excused from study hall and regular classes to attend lessons. A rotating schedule of lesson times is planned so that no student should be excused from the same class more than once every 5 weeks of school.

673L ORCHESTRA 9-10 E (P)

Full Year 1 Unit

Prerequisite: Successful completion of Orchestra in the preceding year or permission of the Department Supervisor.

The 9-10 Orchestra is composed of students who play violin, viola, cello, or string bass. Students in the 9-10 Orchestra will develop technique, musicianship and performance skills as an ensemble. Each orchestra member is expected to participate in all performances scheduled for school and community audiences. Lessons are required of all students in Orchestra. Students are excused from regular classes to attend lessons. A rotating schedule of lesson times is planned so no student should be excused from the same class more than once every 4 weeks of school.

673T ORCHESTRA 11-12 E (P)

Full Year 1 Unit

Prerequisite: Successful completion of Orchestra in the preceding year or permission of the Department Supervisor.

The 11-12 Orchestra is composed of students who play violin, viola, cello, or string bass. The 11-12 Orchestra will combine with members of the Wind Ensemble to perform as a Symphonic Orchestra. Students will continue to develop technique, musicianship and performance skills as an ensemble. Each orchestra member is expected to participate in all performances scheduled for school and community audiences. Lessons are required of all students in Orchestra. Students are excused from regular classes to attend lessons. A rotating schedule of lesson times is planned so that no student should be excused from the same class more than once every 4 weeks of school.

675L/675T BAND/CHORUS E (P)

Full Year 1 Unit

Prerequisite: Same as Symphonic Band.

Students who desire to enroll in both Band and Chorus during the same class period can enroll in 675 Band/Chorus. Grades 9-10 enroll in 675L (LaFollette); students in 11-12 enroll in 675T (Taft). Students alternate rehearsal days between the two ensembles. See the Symphonic Band and Chorus course descriptions for more information. In September, students will sign up to take lessons in only one of the two courses.

676 WIND ENSEMBLE/CHORUS E (P)

Full Year 1 Unit

Prerequisite: Same as Wind Ensemble.

Students who desire to enroll in both Wind Ensemble and Chorus during the same class period can enroll in 676 Wind Ens/Chorus. Wind Ensemble is scheduled during the same period as 11-12 Chorus; students in Wind Ensemble/Chorus are thus enrolled in the 11-12 Chorus regardless of their grade level. Students alternate rehearsal days between the two ensembles. See the Wind Ensemble and Chorus course descriptions for more information. In September, students will sign up to take lessons in only one of the two courses.

677L/677T ORCHESTRA/CHORUS E (P)

Full Year 1 Unit

Prerequisite: Same as Orchestra.

Students who desire to enroll in both Orchestra and Chorus during the same class period can enroll in 677 Orchestra/Chorus. Grades 9-10 enroll in 677L (LaFollette); students in 11-12 enroll in 677T (Taft). Students alternate rehearsal days between the two ensembles. See the Orchestra and Chorus course descriptions for more information. In September, students will sign up to take lessons in only one of the two courses.

685 POP/ROCK BAND E (P)

Full Year 1 Unit

This class is designed to create performing opportunities for students who have experience on any musical instrument or voice. The course is well suited to students with experience on guitar, voice, keyboard, drums, or bass, or other musical experience and a desire to learn performance skills on these instruments. Students who take this full-year performance course will learn various music styles used in popular music and rock genres, and perform as a group on school concerts. Included in the curriculum are instruction in various instrumental techniques and opportunities for songwriting and performance. Students who participate in this group have the opportunity to become well-rounded musicians. Each Pop/Rock Band member is expected to participate in all scheduled concerts for school and community audiences.

661 MUSIC THEORY 1 E

First Semester ½ Unit

Music Theory 1 studies the practices and possibilities of music, a way to explain and discuss what we hear. The course will include the fundamentals of notation, structures of chords and melodies, melodic and rhythmic dictation and ear training. As preparation for further study in Music Theory, emphasis will be placed on developing skills in analyzing music by ear and on developing the music literacy skills to read and write music, including specific melodic and harmonic elements.

This course is recommended for music sequence or performance students.

662 MUSIC THEORY 2 E (P)**Second Semester ½ Unit**

Prerequisite: Music Theory 1 or permission of the Department Supervisor.

Music Theory 2 will continue the study of rudiments of music, melodic and rhythmic dictation, and will introduce four-part harmony in a classical tradition. This course is recommended for music sequence or performance students, and strongly recommended for any student wishing to pursue music in college.

663 MUSIC THEORY 3 E (P)**First Semester ½ Unit**

Prerequisite: Music Theory 2 or permission of the Department Supervisor.

Students will continue the study of dictation, ear training and four-part harmony including inversions and seventh chords. This course is recommended for music sequence or performance students, and strongly recommended for any student wishing to pursue music in college.

664/664AP MUSIC THEORY 4/AP MUSIC THEORY E (P)**Second Semester ½ Unit**

Prerequisite: Music Theory 3 or permission of the Department Supervisor.

Students in this course will continue the study of classical harmonic practices, including preparation for the Advanced Placement exam in Music Theory. Students can enroll in Music Theory 3 and 4, and then decide whether to take the AP Music Theory exam. If they take the AP exam, their transcript will show AP Music Theory; otherwise the transcript will stay as Music Theory 4. This course is recommended for music sequence or performance students, and strongly recommended for any student wishing to pursue music in college.

667 MUSIC TECHNOLOGY E (P)**First Semester ½ Unit**

Prerequisite: Successful completion of either one year in a SHS performing group or Music Theory 1.

This course will serve as an introduction to the technology used in music recording, editing and production. Students will learn about the history of music technology and about careers in related fields. They will create electronic compositions, edit and produce music, and record live performances in a simulated studio environment. Class size is limited and, if necessary, preferential scheduling will be given to upperclassmen.

668 ADVANCED MUSIC TECHNOLOGY E (P)**Second Semester ½ Unit**

Prerequisite: Successful completion of Music Technology.

Advanced students will work on a project-based curriculum related to electronic composition, editing and arranging music, and recording. Class size is limited, and if necessary, preferential scheduling will be given to upperclassmen.

683 MUSIC IN OUR LIVES 1 E**First Semester ½ Unit**

This basic level course, combined with Music in Our Lives 2, is designed to satisfy the Regents requirement in art or music and is open to all students. Through guided listening and discussion, students will be confronted with the role that music plays in their lives and with the ways it has affected the lives of others throughout history. Besides factual knowledge exploring the evolution of music, the student will learn basic music notation, analysis and performance skills. Each student will experience music directly by using these basic skills to perform and create music. Special interest music projects will be assigned.

684 MUSIC IN OUR LIVES 2 E (P)**Second Semester ½ Unit**

This course is a complement to Music in Our Lives 1. This course, combined with Music in Our Lives 1, is designed to satisfy the Regents requirement in art or music and is open to all students. Similar activities to those in the first semester course will be used to explore different topics and aspects of music.

678 MUSIC FOUNDATIONS E**Either Semester ½ Unit**

Supervisor Recommendation Required

This course will give students opportunities to explore musical performance and appreciation through a variety of learning tasks that are designed to be accessible and tied to students' learning goals. Students will develop their interpersonal skills through music performance, listening, and study of a variety of musical styles. Students will work together, building a sense of community through music.

APPLIED MUSIC (PRIVATE MUSIC STUDY)

Students may earn one-half credit for private study outside the school by meeting the following requirements:

1. The student must have completed one year of private study without credit.
2. The student must receive ½ hour of instruction each week for 36 weeks and must practice a minimum of 5 hours per week.
3. The student must perform an examination for the District Music Supervisor before credit will be allowed.
4. Quarterly reports must be filled out and have a grade issued by the private music teacher. Private study should focus on solos, methods, and technique development, at a level that is beyond that which the student would receive in the regular high school music program.

Applications will be made available by the District Music Supervisor at the beginning of each school year, and must be submitted to the Supervisor no later than September 30. A total of two credits may be earned over a period of four years. Applied Music will not meet the graduation requirement for one credit of art/music study, and it may not be used as a part of a five credit fine arts sequence.

PHYSICAL EDUCATION

Physical education is an instructional program contributing to the physical, mental and social development of all students. The broad instructional phase of the program provides for a vigorous experience in the development of skills, techniques and knowledge of individual, team and lifetime athletic activities.

A wide variety of activities are offered for our students. The school year is divided into two semesters and the activities offered in each semester range in duration of three-to-ten weeks, depending on the activity. Tenth, eleventh and twelfth grade students are encouraged to select activities which are personally vital, interesting and that will contribute to their individual development. The ninth grade students follow a prescribed program.

Adapted physical education is provided for pupils with chronic handicapping conditions, those recuperating from injuries and accidents as well as those convalescing from long and short-term illnesses. Students under doctor's written authorization of a period of three weeks or longer will be assigned to adaptive Physical Education.

All students are required to be in the regular or the adapted program. An American Red Cross Level 3 Swimming achievement or Basic Water Safety Course is required for all students.

Four years (two credits) of physical education are required for graduation. One-quarter unit of credit is earned each semester. Students must successfully pass eight semesters.

9th Grade Elective Offerings

PE 903/904 FRESHMAN PHYSICAL EDUCATION

The freshman level curriculum includes: Aerobic Activity, Base Games, Competitive Games, Cross-Country/Track and Field, Fitness/Wellness, Net Games, Project Adventure, REC Sports, Swimming, Team Sports, Strength Training.

PF PE 9 PERFORMANCE FITNESS

This semester course is designed for athletes of all ages to learn about various aspects of fitness in order to improve athletic performance. Topics covered include: proper lifting techniques, injury prevention, power, agility, speed, reaction time, coordination and balance. This course is open to 9-12 graders. Students can participate in this course multiple times. Freshman who register for Performance Fitness, need to recognize that we may not be able to accommodate every freshman who has selected it. Therefore, priority will be given to students in grades 10-12. Ninth grade students who cannot be accommodated will automatically be rescheduled for Freshman Physical Education.

10th-12th Grade Elective Offerings

PF PE 10-12 PERFORMANCE FITNESS

This semester course is designed for athletes of all ages to learn about various aspects of fitness in order to improve athletic performance. Topics covered include: proper lifting techniques, injury prevention, power, agility, speed, reaction time, coordination and balance. Seniors exemptions will not be approved for Performance Fitness.

TSF PE 10-12 TEAM SPORTS AND FITNESS

This semester course is designed to accommodate and challenge highly motivated physical education students. While active participation is essential in all P.E. classes, Team Sports & Fitness puts emphasis on team play, game strategy and the cooperative nature of team sports. Students will be exposed to the skills, rules, scoring and strategies necessary to engage in team play in a variety of sports. Activities will include soccer, football, Cavottaball, basketball, base games, dodgeball, volleyball, floor hockey and many other games of student interest.

RSF PE 10-12 RECREATIONAL SPORTS AND FITNESS

This semester course requires great energy and enthusiasm with the emphasis on active participation and the concept of competition is secondary. Both team and individual sports will be covered. Students will learn skills, strategies, rules and scoring for the following activities: Frisbee activities, archery, 4-square, dodgeball, Cavottaball, Pickleball, bocce, volleyball, base games, floor hockey, backyard games and other recreational games of student interest.

NSF PE 10-12 NET SPORTS AND FITNESS

This semester course will focus on the traditional net sports. Students will learn the skills, rules, scoring and strategies necessary to play net sports. Students in this course should be interested in skill work, individual and small group team play and learning about the opportunities for net sports in our community. Activities will include tennis, badminton, volleyball, Pickleball, beach volleyball (outside) Speedminton and other sports of student interest.

PAF PE 10-12 PROJECT ADVENTURE AND FITNESS

This semester course is for the adventurous student who likes a challenge. Cooperative games and team-building activities at the ground level are the focus of the first half of this course. After students complete these ground level activities and develop a trust with their classmates they will learn rope skills and belaying techniques. The course will culminate with students testing their limits as they climb to new heights on our ropes course. The course is the perfect opportunity for students to challenge themselves to try something new.

LSF PE 10-12 LIFETIME SPORTS AND FITNESS

Lifetime Fitness is a high school course for students who wish to participate in physical activities that generally can be pursued throughout one's lifetime. Lifetime fitness covers various topics, trainings, and concepts so that students have a solid understanding of all the components that go into having

a healthy body and mind. Students will engage in group fitness classes that include cycling, cardio room workouts, fitness stations, yoga, Pilates, dance, and kickboxing. The course also includes individualized workout programs like walking, weight training, and interactive electronic fitness gaming. The students will additionally explore lifetime recreational games such as volleyball, badminton, orienteering and golf to name a few. The goal for this course is for students to leave this course feeling proficient, confident, and comfortable to enter any gym, fitness studio, or create their own workout routine.

LIFEGUARDING – FULL YEAR COURSE

Looking for a great paying job for the summer? Lifeguards are in very high demand. This is a full-year course, every other day, in which you will obtain an American Red Cross Lifeguarding, CPR, AED, and First Aid certification with an option for Waterfront Lifeguarding. There is a prerequisite physical test that must be passed in order to participate in this course. There may be a minimal fee for course materials for this course. The Lifeguarding curriculum will take up $\frac{3}{4}$ of the course: the remaining $\frac{1}{4}$ will be practical work lifeguarding for other Shaker High School Physical Education classes offering swimming units.

All offerings will consist of a Physical Fitness Component, including Fitness Level/Assessments, exposure and introductory instruction to our Fitness Center/Weight Room.

Activities will be short in duration (1-3 weeks) to expose students to a wide variety of activities. Popular activities may be repeated throughout the semester.

UNIFIED PHYSICAL EDUCATION

Unified Physical Education is an inclusive physical education course that unites student "athletes" (individuals with intellectual disabilities) and "partners" (individuals without intellectual disabilities) to explore a wide variety of activities. Unified Physical Education is a unique opportunity for students of varying ability levels to learn together on equal terms through ongoing fitness, sports, leadership and wellness activities. Students will be working with many students throughout the year by being a peer mentor/teacher. Students will earn their regular physical education credit in this course. This course is only offered during periods when adaptive Physical Education is taught.

SCIENCE

The Shaker High School Science Department is dedicated to helping all students apply and effectively communicate scientific concepts and literacy to real-world phenomena through the use of independent critical thinking and problem-solving skills. These qualities will be modeled and fostered through the development of relevant curricula and the encouragement of appropriate collaboration in a safe, positive, and supportive environment. Please see our web page, <http://www.northcolonie.org/academics/science/> for more information, including very important and more comprehensive information regarding prerequisites and course recommendations.

315 APPLIED BIOLOGY 1R (P)

NCAA Approved Course | Full Year 1 Unit

Prerequisite: Successful completion of 8th grade science.

This course will address the same curriculum topics as Biology R with a concentration on the first half of the Biology R curriculum. Applied Biology 1R, when combined with Applied Biology 2R in the following year, culminates in the Living Environment Regents Exam. This course requires the completion of all laboratory investigations and a final examination.

316 APPLIED BIOLOGY 2R (P)

NCAA Approved Course | Full Year 1 Unit

Prerequisite: Successful completion of Applied Biology 1R and all laboratories associated with Applied Biology 1R.

This course will address the same curriculum topics that students in Biology R study concentrating on the second half of the Biology

R curriculum. Applied Biology 2R, combined with Applied Biology 1R in the previous year, culminates in the Living Environment Regents Exam. This course requires the completion of laboratory investigations and the New York State Living Environment Regents Examination.

322 BIOLOGY R (P)

NCAA Approved Course | Full Year 1 Unit

Prerequisite: Recommendation of 8th grade science teacher.

This course applies scientific concepts, principles, and theories pertaining to the living environment. Major topics include: cellular structures and processes, genetics, human body systems, ecology, and evolution. This course requires the completion of laboratory investigations, and the New York State Regents Examination in Living Environment.

321 BIOLOGY H (P)

NCAA Approved Course | Full Year 1 Unit

Prerequisite: Achievement of FSM of 87 in Algebra 1 and FSM of 87 in Earth Science OR a FSM of "A" in Science 8 and "A" in Math 8. Students in Math and Science 8 must also be recommended by their teacher.

Recommendation: FSM of 90 in Algebra 1 and a FSM of 90 in Earth Science R.

This course has been designed to parallel the basic content of Biology R while providing further exploration into the science of living things. The course stresses greater detail of the human body systems and a deeper understanding of the biochemistry that underlies observable biological phenomena. This course requires the completion of laboratory investigations, and the New York State Regents Examination in Living Environment. Students are also required to complete written reports based on scientific articles and complete various projects throughout the year.

312 UNIFIED BIOLOGY 1**NCAA Approved Course for .5 credit only****Full Year 1 Unit**

The Unified Biology 1 course is the first year of a two-year program and focuses on topics found in the first half of the Biology-R curriculum, yet is a modified version of the Applied Biology 1 course. Support and assessments are designed to measure instructional objectives and to allow for the special needs of each student. This program, in conjunction with the Unified Biology 2 course the following year, culminates in the NYS Living Environment Regents Exam. This course requires the completion of laboratory investigations, and a final examination.

313 UNIFIED BIOLOGY 2 (P)**NCAA Approved Course for .5 credit only****Full Year 1 Unit**

Prerequisite: Successful completion of Unified Biology 1 and all laboratories associated with Unified Biology 1.

The Unified Biology 2 course is the second year of a two-year program and focuses on topics found in the second half of the Biology-R curriculum, yet is a modified version of the Applied Biology 2 course. Support and assessments are designed to measure instructional objectives and to allow for the special needs of each student. This program, in conjunction with the Unified Biology 1 course the previous year, culminates in the NYS Living Environment Regents Exam. This course requires the completion of laboratory investigations and the New York State Living Environment Regents Examination.

334 EARTH SCIENCE (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: FSM of 65 or better in Biology R or FSM of 75 or better in Applied Biology 2.

This course presents a broad array of the Earth science content. Topics in geology, meteorology and astronomy will be examined through hands-on laboratory experiences. This course requires the completion of laboratory investigations (prior to any portion of the NYS Regents Exam) and the New York State Regents Examination in Earth Science.

342 CHEMISTRY R (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: FSM of 75 or better in Common Core Geometry (222). FSM of 75 or better in Earth Science R and passing grade on the respective Regents Exams.

Recommendation: FSM of 80 or better in Geometry (222). FSM of 80 or better in Earth Science R.

This course is the study of matter and energy, including the structure, composition, properties, and changes of matter. Applications of chemical principles and mathematical problems are integrated into each unit. This course requires the completion of laboratory investigations, and the NYS Regents Examination in Chemistry.

341 CHEMISTRY H (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: FSM of 93 in Earth Science R and Biology R (or 90 in the honors levels respectively). FSM of 93 in Common Core Geometry R (or a 90 in Geometry H). Teacher recommendation or permission of department supervisor.

In addition to an enriched version of the Chemistry R curriculum, this course will include an extensive focus on selected topics covered at a more rigorous pace. Increased emphasis will be placed on explanations and thought processes, as well as advanced mathematical applications. Students will complete additional honors assignments that will include concepts that encourage abstract thinking. This course requires the completion of laboratory investigations, and the NYS Regents Examination in Chemistry.

343 CHEMISTRY E (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: Successful completion of Algebra 1 or equivalent.

This course presents a background in chemistry and develops an appreciation for the process of scientific investigation and the role of the chemist. Topics are derived from the Regents level chemistry course, however, depth and pace have been adjusted to accommodate a wide variety of learners. A portion of class time will be devoted to laboratory work, including hands-on lab activities and written lab reports. This course is open to students in grades 11-12.

332 PHYSICS R (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: FSM of 75 in Chemistry R, FSM of 75 in Common Core Algebra 2 (232), concurrent enrollment in Math Precalculus (245).

Physics is a consideration of energy as the unifying factor in the study areas of Mechanics, both Static and Dynamic, Wave Mechanics, Optics, Electricity, Magnetism and Modern Physics. The approach taken is a quantitative one with an emphasis on the conceptual aspects of physics common to the areas under study. This course requires the completion of laboratory investigations, and the NYS Regents Examination in Physics. Students will be exposed to right triangle trigonometry in this course and may not have learned that topic in their respective math class yet.

331 PHYSICS H (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: FSM of 93 in Common Core Algebra 2 (232), or 90 in H (231) and FSM of 93 in Chemistry R (342) or 90 in Chem H (341) or permission of Department Supervisor.

This course is designed to allow for more in-depth study of the curriculum in Physics R. This course requires the completion of laboratory investigations, and the NYS Regents Examination in Physics. Students will be exposed to right triangle trigonometry in this course and may not have learned that topic in their respective math class yet.

335 ENVIRONMENTAL SCIENCE (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: FSM of 75 in Regents Biology and a FSM of 75 in Regents Chemistry. Successful completion of the Regents exam in Biology and Chemistry.

In this course, special attention will be given to the basic concepts needed to understand the many environmental and technical concerns facing humankind today. Such topics as the study of ecosystem cycles and population, energy, and pollution will be discussed. It will be necessary for students to have acquired fundamental mathematical skills in order to understand and appreciate various topics under investigation. Also it will be necessary for students to have acquired a certain proficiency in reading, writing and interpreting newspaper and or magazine articles/papers in order to be able to evaluate the latest environmental issues. After the basic concepts and theories have been presented and learned, they will be applied in the study of such issues as alternative energy sources, nuclear energy, air/ water pollution and solid waste disposal. Laboratory sessions will be incorporated into regular class periods.

340 FORENSICS (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: Students enrolled in this course must be in 12th grade and have successfully completed at least 3 years of science as well as passed at least 1 Regents Exam in science. Successful completion of Chemistry R is recommended.

Forensics is designed to be an overview of various concepts relating to forensic science and crime scene investigation. This course is inquiry-based and investigative in nature, placing a heavy emphasis on analysis and problem-solving skills. Topics include Fingerprint Analysis, Hair Analysis, Blood Analysis, DNA Analysis, Forensic Pathology, Forensic Anthropology, Toxicology and Document Analysis. Class size is limited. This course is subject to enrollment limitations. If the number of qualified students exceeds the maximum enrollment for the program, a random lottery will be run to determine final student entry. Qualified students denied entry based on the lottery may select another science course, as long as space allows in that particular course.

340SU UNIVERSITY PROJECT ADVANCE (SUPA) FORENSICS (P)**Full Year 1 Unit**

Prerequisite: FSM of 75 in Regents Chemistry. In addition, students enrolled in this course must be in 12th grade and have successfully completed at least 3 years of science as well as passed at least 1 Regents Exam in science.

Description contains excerpts from SUPA: Chemistry 113 (Forensics): This course is intended to provide an introduction to understanding the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented, with emphasis placed upon the techniques used in evaluating physical evidence. Topics included are blood analysis, organic and inorganic evidence analysis, microscopic investigations, hair analysis, DNA, drug chemistry and toxicology,

fiber comparisons, paints, glass compositions and fragmentation, fingerprints, soil comparisons, and arson investigations, among others. Laboratory exercises will include learning techniques commonly employed in forensic investigations.

Students requesting this course are considered applicants to the program. Therefore, students will be reviewed by the Science Supervisor, in conjunction with teachers, and may be subject to removal based on student academic credentials, overall effort, and continued success in their current courses. Any student who wishes to enroll in this program and does NOT meet all prerequisites for this course at the time of their request must fill out a "Request for Prerequisite Waiver" form found on the NCCS Science Learning Community webpage. In addition, this course is subject to enrollment limitations. If the number of qualified students exceeds the maximum enrollment for the program, a random lottery will be run to determine final student entry. Qualified students denied entry based on the lottery may select another science course, as long as space allows in that particular course.

355 FOOD SCIENCE (P)**Half Year ½ Unit**

Prerequisite: Available to seniors as a fourth unit of science who have completed all science-based graduation requirements.

This course is designed as an interdisciplinary approach to understanding the science of food and cooking. Science topics will include Food Chemistry (matter, energy, reaction kinetics), and Food Microbiology (nutrition, metabolism, food safety and preservation), Sensory and Consumer Science (biochemistry, molecule analysis), and Food Engineering (food production, processing and sustainability). This course will involve working with food and food preparation as part of the curriculum.

356 ASTRONOMY AND SEVERE WEATHER**NCAA Approved Course | Full Year 1 Unit**

Semester 1 begins with a discussion about the universe and works inward toward our star (sun) and planet Earth. Semester 2 is focused on Earth, and discusses in detail how severe weather works on the surface of the Earth. Each of these semesters are based on a single Earth Science unit, but contain much more detail that is not covered in the regents Earth Science curriculum. Therefore, this course is open to students in grades 11 and 12 who have completed their life science credit(s) even if they have formerly taken Earth Science.

344 ADVANCED PLACEMENT BIOLOGY (P)**NCAA Approved Course****Full Year 1 ½ Units (double period)**

Prerequisite: FSM of 93 in Regents Biology (or 90 in honors Biology), 90 in Regents Chemistry (87 in honors Chemistry) and a 75 in Regents or Honors Physics.

This course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. The AP Biology course is designed to be taken by students after the successful completion of Biology R,

Chemistry R and Physics R. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. The course consists of three major areas: Molecules and Cells; Heredity and Evolution; and Organisms and Populations. Students are required to complete the laboratory portion of the course which will address the thirteen labs required by the College Board. The Advanced Placement Examination is required of all students enrolled in the course. A fee is charged by the College Board and must be paid or the student may be placed in another science course.

Students requesting this course are considered applicants to the program. Therefore, students will be reviewed by the Science Supervisor, in conjunction with teachers, and may be subject to removal based on student academic credentials, overall effort, and continued success in their current courses. Any student who wishes to enroll in this program and does NOT meet all prerequisites for this course at the time of their request must fill out a "Request for Prerequisite Waiver" form found on the NCCS Science Learning Community webpage. In addition, this course is subject to enrollment limitations. If the number of qualified students exceeds the maximum enrollment for the program, a random lottery will be run to determine final student entry. Qualified students denied entry based on the lottery may select another science course, as long as space allows in that particular course.

345 ADVANCED PLACEMENT CHEMISTRY (P)

NCAA Approved Course

Full Year 1 ½ Units (double period)

Prerequisite: FSM of 93 in Regents Chemistry (or 90 in Chemistry H), an FSM of 75 in Regents or Honors Physics, and enrolled in Precalculus Honors or above.

This college-level course is designed to be the equivalent of General Chemistry I and II taken by chemistry and biology majors during their first year of college. This is a demanding, time-consuming course that builds on the Regents chemistry curriculum, but differs from it in depth of presentation, the amount and level of inquiry in the laboratory work required, and its emphasis on the mathematical formulation of principles. The AP board requires the successful completion of 16 labs, 6 of which must be inquiry based. The Advanced Placement Examination is required of all students taking this course. A fee is charged by the College Board and must be paid or the student may be placed in another course.

Students requesting this course are considered applicants to the program. Therefore, students will be reviewed by the Science Supervisor, in conjunction with teachers, and may be subject to removal based on student academic credentials, overall effort, and continued success in their current courses. Any student who wishes to enroll in this program and does NOT meet all prerequisites for this course at the time of their request must fill out a "Request for Prerequisite Waiver" form found on the NCCS Science Learning Community webpage. In addition, this course

is subject to enrollment limitations. If the number of qualified students exceeds the maximum enrollment for the program, a random lottery will be run to determine final student entry. Qualified students denied entry based on the lottery may select another science course, as long as space allows in that particular course.

349 UNIVERSITY IN THE HIGH SCHOOL PHYSICS (P)

NCAA Approved Course | Full Year 1 Unit

Prerequisite: FSM of 93 in Regents Chemistry (or 93 in Chemistry H), FSM of 93 in Common Core Algebra 2 (or 90 in H)

The UHS Physics program includes topics in both classical and modern physics. Knowledge of algebra and trigonometry is required for the course. The basic ideas of calculus may be introduced in connection with physical concepts, such as acceleration and work. Understanding of the principles involved, and the ability to apply these principles to solve problems are major goals of the course. Laboratory work is required and will be an integral part of the course as discovery learning is the major methodology employed throughout the year. The NYS Regents examination is required of all students taking this course. Students in this course will have the opportunity to enroll in the University in the High School program and can earn up to eight (8) Siena credits upon successful completion (4 credits available per semester). Students electing to enroll in the program will be charged a fee from Siena college.

Students requesting this course are considered applicants to the program. Therefore, students will be reviewed by the Science Supervisor, in conjunction with teachers, and may be subject to removal based on student academic credentials, overall effort, and continued success in their current courses. Any student who wishes to enroll in this program and does NOT meet all prerequisites for this course at the time of their request must fill out a "Request for Prerequisite Waiver" form found on the NCCS Science Learning Community webpage. In addition, this course is subject to enrollment limitations. If the number of qualified students exceeds the maximum enrollment for the program, a random lottery will be run to determine final student entry. Qualified students denied entry based on the lottery may select another science course, as long as space allows in that particular course.

348 ADVANCEMENT PLACEMENT PHYSICS (C-LEVEL MECHANICS) (P)

NCAA Approved Course | Full Year 1 Unit

Prerequisite: FSM of 90 in UHS Physics, (or a 93 in Physics H, or Physics R), enrollment in or completion of A/B or B/C Calculus.

The course in Advanced Placement Physics (C level) is intended to be representative of courses commonly offered in colleges and universities. It is designed to provide a more rigorous calculus investigation of topics previously studied in Physics. The subject matter of the course is Mechanics. Laboratory work will be an integral part of the course since certain areas of physics are much more meaningful when presented through the laboratory.

This course is designed for any student continuing in a math/engineering field and is seeking college physics credit in that field. The Advanced Placement Examination is required of all students taking this course. A fee is charged by the College Board and must be paid or the student may be placed in another course.

Students requesting this course are considered applicants to the program. Therefore, students will be reviewed by the Science Supervisor, in conjunction with teachers, and may be subject to removal based on student academic credentials, overall effort, and continued success in their current courses. Any student who wishes to enroll in this program and does NOT meet all prerequisites for this course at the time of their request must fill out a "Request for Prerequisite Waiver" form found on the NCCS Science Learning Community webpage. In addition, this course is subject to enrollment limitations. If the number of qualified students exceeds the maximum enrollment for the program, a random lottery will be run to determine final student entry. Qualified students denied entry based on the lottery may select another science course, as long as space allows in that particular course.

347 ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (P)

NCAA Approved Course | Full Year 1 Unit

Prerequisite: FSM of 85 in Regents Biology and an 85 in Regents Chemistry.

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. This course is intended to enable students to undertake, as first-year college students, a more advanced study of topics in environmental science. The course will address the following themes: Science is a process; Energy conversions underlie all ecological processes, the Earth itself is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends on developing practices that will achieve sustainable systems. The course includes a strong laboratory and field investigation component. The goal of this component is to complement the classroom portion of the course by allowing students to learn about the environment through first-hand observation. The Advanced Placement Examination is required of all students taking this course. A fee is charged by the College Board and must be paid or the student may be placed in another course.

Students requesting this course are considered applicants to the program. Therefore, students will be reviewed by the Science Supervisor, in conjunction with teachers, and may be subject to removal based on student academic credentials, overall effort, and continued success in their current courses. Any student who wishes to enroll in this program and does NOT meet all prerequisites for this course at the time of their request must fill out a "Request for Prerequisite Waiver" form found on the NCCS Science Learning Community webpage. In addition, this course is subject to enrollment limitations. If the number of qualified

students exceeds the maximum enrollment for the program, a random lottery will be run to determine final student entry. Qualified students denied entry based on the lottery may select another science course, as long as space allows in that particular course.

350 SCIENCE RESEARCH 10H (P)

351 SCIENCE RESEARCH 11H

352 SCIENCE RESEARCH 12H

NCAA Approved Course | Full Year 1 Unit

Prerequisite: Enrollment in the Science Research Program is by application only and recommendation of a Science Teacher.

Students will be considered based upon:

1. Completion of grade 9 and desire to supplement their science education through Science Research.
2. Willingness to commit to the three year program.
3. Problem solving and analytical abilities.
4. Work habits and career plans.
5. Writing skills.
6. Completion of a rigorous application with a strict deadline.

The Science Research Class is a unique program that allows the student the opportunity to conduct scientific research, at the college level, through the establishment of a mentorship with a professional researcher. Students will continue their research over their summer vacations. Students will be assessed through bi-weekly conferences with their instructor. Students will be required to document, in a laboratory notebook, a minimum of 3.5 hours per week of research, outside of the classroom setting. Ultimately the student will conduct a research investigation, write a paper on their findings, prepare a PowerPoint, scientific poster and present their findings to several local science competitions. Students in this course will have the opportunity to enroll in the University in the High School program and can earn up to twelve (12) State University of New York credits upon successful completion. (2 credits per summer semester x2) (4 credits per full year semester x 2).

ACADEMIC INTERVENTION SERVICES

No Credit

This remediation period is provided to assist students in meeting the graduation requirements in science. The State Education Department mandates this remediation for students who score below the state performance level on the 8th grade science assessment or the Living Environment Regents Exam.

SOCIAL STUDIES

The primary purpose of the Shaker High School social studies department is to help students develop reasoned and informed decision making processes for the public good, as citizens of a culturally diverse, democratic society. Within an integrated grades 9-12 program of study that incorporates history, the social sciences, geography, sociology, political science, psychology, civics, and criminal law, scholarship is developed through a comprehensive multi-disciplinary approach.

At the high school level, the social studies program prepares students with core knowledge as well as authentic, real world skills while simultaneously addressing the New York State Learning Standards. Students in grades 9 and 10 study Global History and Geography, culminating in the Global History Regents examination. The focus shifts to United States History and Government in 11th grade, a course that also ends with a Regents exam. In order to satisfy graduation requirements, seniors may choose between various one semester courses. Students may have an opportunity to request other electives that do not satisfy core requirements but may be taken in addition to them.

SEAL OF CIVIC READINESS			
CIVIC KNOWLEDGE		CIVIC PARTICIPATION	
4 credits of social studies	1 Point	High school civics project	1.5 Points
Mastery level on social studies Regents	1.5 Points	Service learning project (minimum 25 hours)	1 Point
Proficiency level on social studies Regents exams	1 Point	Proficiency in an elective course	.5 Point
Advanced social studies course	.5 Point	Extra-curricular experience or work based experience (minimum 40 hours)	.5 Point
Research project	1 Point	Middle School Capstone Project	1 Point
High School Capstone Project satisfied by taking social studies course #190 (see below)			4 Points
<i>NY State now allows Shaker High School to award a special diploma recognition Students who receive the NYSED Seal of Civic Readiness must earn a total of 6 points, with at least 2 points from the row Criteria for Demonstrating Proficiency in Civic Knowledge and at least 2 points from the row Criteria for Demonstrating Civic Participation. [See also Course 190 below.]</i>			

110 ADVANCED WORLD HISTORY (P)

Full Year 1 Unit

Prerequisites: Successful completion of 8th grade social studies or permission of the Department Supervisor.

The purpose of AP World History is to develop greater understanding of the evolution of global resources and contacts, in interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. This course highlights the nature of historical changes and their causes and consequences, as well as comparisons among major societies. Focused primarily on the past thousand years of the global experience, the course builds on an understanding of cultural, institutional, and technological events that, along with geography, set the human stage prior to 1000 C.E. Chronology and the study of historical themes from the organizing principles for dealing with change and continuity from that point to the 19th century. Equal emphasis is placed on historical analysis of the Western and non-Western world. This program option is particularly designed for those students whose records indicate superior achievement in the area of social studies, who evidence a serious academic interest in academic challenge in the social science field, and who display a readiness to begin a program sequence that can include the earning of Advanced Placement

credit in grades 10, 11 and/or 12, as well as New York State Regents credit. The final examination in this course will be a test developed at Shaker High School. Expected range of achievement for this course will be 90-100.

GLOBAL HISTORY 9H (P)

Full Year 1 Unit Prerequisites:

Prerequisite: Successful completion of social studies 8 or Permission of the Department Supervisor.

Study is focused on developing historical perspectives on world history from prehistoric times to the early 19th century. Relationships and links are explored in order to learn how the past influences the present. Political, social, and economic themes such as nationalism, ideology, economic systems, modernization and human rights are introduced within a geographic and cultural context.

Students electing this course should be prepared to deal with subjects in an analytical and interpretive manner. Expected range of achievement is 85-100.

GLOBAL HISTORY 9R

Full Year 1 Unit

In studying world history from prehistoric times to the 18th century, unit work will center on political, social and economic topics studied within a historical context. Students will be

required to make connections among concepts and themes in Global History and link them across time and place. Instruction will also emphasize the application of social studies skills in multiple historical settings. Emphasis is placed on helping student's social studies skills such as locating and analyzing data from different sources.

AP WORLD HISTORY (P)

Full Year 1 Unit Prerequisites:

Prerequisites: Successful completion of 9th grade social studies or Permission of the Department Supervisor.

The purpose of AP World History is to develop a greater understanding of the evolution of global resources and contacts, and interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of historical changes and their causes and consequences, as well as comparisons among major societies. Focused primarily on the 19th and 20th century global experience, the course builds on an understanding of cultural, institutional, and technological events that, along with geography, set the stage from the 19th century to contemporary times. Chronology and the study of historical themes form the organizing principles for dealing with change and continuity. Equal emphasis is placed on historical analysis of the Western and non-Western world.

This program is particularly designed for those students whose records indicate superior achievement in the area of social studies and who evidence a serious academic interest in the social science field. The final examination in this course is the New York State Regents Exam in Global History. The Advanced Placement Examination is an optional part of this course. A fee is charged by the College Entrance Examination Board for the exam.

GLOBAL STUDIES 10H (P)

Full Year 1 Unit Prerequisites:

Prerequisites: Successful completion of 9th grade social studies or Permission of the Department Supervisor.

Study is focused on developing historical perspectives on world history from the early 19th century to contemporary times. Relationships and links are explored in order to learn how the past influences the present. Political, social, and economic themes such as nationalism, ideology, economic systems, modernization and human rights are introduced within a geographic and cultural context. Completion of a research paper is a requirement of the course. Students electing to take the course should be prepared to deal with subjects in an analytical and interpretive manner with demonstration of such ability in present course work as one criteria for recommendation. Expected range of achievement is 85-100. The final examination in this course is the New York State Regents Exam in Global History.

GLOBAL STUDIES 10R (P)

Full Year 1 Unit

Prerequisite: Global Studies 9.

In studying world history from the early 19th century through contemporary times, unit work will center on political, social and economic topics studied within a historical context. Students will continue to be required to make connections among concepts and themes in Global History and link them across time and place. Preparation will also emphasize the teaching and application of social studies skills in multiple historical settings. Specific time will be devoted to preparing a research paper on some topic related to the course of study. The final examination in this course is the New York State Regents Exam in Global History. Emphasis is placed on helping student's social studies skills, such as locating and analyzing data from different sources.

AP UNITED STATES HISTORY (P)

Full Year 1 Unit

Prerequisites: Successful completion of 10th grade social studies or Permission of the Department Supervisor.

This program is particularly designed for those students whose records indicate superior achievement in the area of social studies and who evidence a serious academic interest in the social science field. While not required, it is strongly recommended that students demonstrate excellent reading and writing skills preferably at the Honors ELA level. Major periods in United States history such as the colonial period, American Revolution, Jacksonian Era, Civil War and Reconstruction, Populist-Progressive period, the New Deal, and post-World War II United States are studied in order to develop understanding and appreciation of political, economic and social development of the United States. Students are given the opportunity to develop skill proficiency in reading and critically analyzing historical material, weighing and interpreting historical material, weighing and interpreting historical evidence, and making conclusions based on such evidence. This course is intended to substitute for United States History and Government H for selected students who have successfully completed the H level social studies program in grades 9 and 10, and who wish to earn advanced college placement or credit in United States History. Award of such credit is ultimately determined by the college based on the student's test grade in Advanced Placement United States History as developed and scored by the Educational Testing Service. Students will also earn Regents credit by taking the New York State Regents Examination in United States History and Government which will serve as the final test grade. The Advanced Placement Examination is an option for students taking this course. A fee is charged by the College Board for the exam.

UNITED STATES HISTORY AND GOVERNMENT 11H (P)**Full Year 1 Unit**

Prerequisites: Successful completion of 10th grade social studies or Permission of the Department Supervisor.

This course treats the evolution of the political system, economic organization, civilization, and foreign policy of the United States in a chronological framework. Constitutional and governmental issues receive special emphasis. Students are challenged to explore and evaluate such references as will contribute to a critical analysis of major issues. Use is made of supplementary outside readings, source materials and documents, and interpretive studies. The final examination in the course is the New York State Regents Examination in U.S. History and Government.

UNITED STATES HISTORY AND GOVERNMENT 11R (P)**Full Year 1 Unit**

Prerequisite: Global Studies 10.

This course will include a chronological survey of United States history in general, but the emphasis will be on the U.S. as a developing industrial and postindustrial nation. Constitutional and legal issues will be explored in-depth, as well as the problems of a dynamic industrial society in an increasingly complex and technology-oriented world. Classwork and homework is supplemented by use of various source materials and readings. The final examination in the course is the New York State Regents Examination in U.S. History and Government.

942GR/942GA GLOBAL HISTORY AIS LAB**No Credit**

This remedial lab offers academic intervention services to students who have not yet passed the New York Regents Examination in Global History. Also, students who may require additional development of social studies skills may be placed in this lab as preparation for the state assessment. Course content and test taking skills are emphasized.

942HR /942HA UNITED STATES HISTORY AIS LAB**No Credit**

This remedial lab offers academic intervention services to students who have not yet passed the New York State Regents examination in United States History. Also, students who may require additional development of social studies skills may be placed in this lab as preparation for the state assessment. Course content and test taking skills are emphasized.

12th Grade Social Studies

A student must take a total of 1 unit of credit in Social Studies 12 in order to graduate. This requirement is fulfilled by either taking a one-semester course in Economics and a one-semester course in Participation in Government OR one of the options that meet those requirements. In order to be eligible for graduation, a student must receive a passing grade in each semester course. Grades for semester courses are determined by averaging two quarterly grades with a final examination or its equivalent such as a term paper or course project.

Seniors may take additional semester courses to earn elective credit. These electives are located on pages 44-45. However, enrollment in these courses is limited.

AP US GOVERNMENT/ECONOMICS H (AP GOVERNMENT AND POLITICS: UNITED STATES) (P)**Full Year 1 Unit**

Prerequisites: Successful completion of United States History and Government or Permission of the Department Supervisor.

This full-year course integrates curriculum and instruction in Economics and U.S. Government and Politics. Students who elect this course fulfill New York fourth year social studies requirements in Economics and Participation in Government. The first half of the course emphasizes the major concepts and themes of economics integrated into broader context of United States government and politics. Focus is on microeconomics (the various components of the United States' economy –business, consumers, laborers, capitalists and government) and macroeconomics (the overall operation of the economy in terms of production and prosperity). In the second half of the course, students study the Constitutional underpinnings of the United States government, political beliefs, and behavior of citizens in order to develop understanding and appreciation of the institutions and policy processes of the national government. Major topics include: the Congress, the Presidency, Federal Courts, the Bureaucracy, political parties and interest groups, and public policy. Students will be expected to weave economic principles and practices into their analysis of the U.S. political system. The Advanced Placement Examination is an option for students taking this course. A fee is charged by the College Board for the exam.

160M AP MACROECONOMICS/GOVERNMENT H (P)**Full Year 1 Credit**

Prerequisites: Successful completion of United States History and Government or Permission of the Department Supervisor.

AP Macroeconomics is a full-year course, which includes a nine-week political science intensive that fulfills the New York State Participation in Government graduation requirement. Approximately 27 course weeks are devoted to the curriculum objectives for AP Macroeconomics as prescribed by the College Board. This course provides an introduction to concepts consistent with those covered in a typical college introduction macroeconomics course. The emphasis will be on application and not memorization. Students will be expected to successfully demonstrate their ability to identify and apply twenty-five different macroeconomic models to a variety of questions and problems. Students will develop critical thinking skills and learn the tools of analysis economists use to arrive at plausible conclusions. This course will provide instruction in basic economic concepts such as production possibilities, comparative advantage, supply and demand and circular flow as well as the components of the gross domestic product, models for analyzing unemployment and inflation, fiscal and monetary policy, including the tools of the Federal Reserve Board. The Advanced Placement Examination is an option for students taking this course. A fee is charged by the College Board for the exam.

183 POLITICS AND ECONOMICS OF GENDER**Either Semester ½ Unit**

This semester long course will provide students with a framework to understand the role that gender plays in defining and determining access to leadership and power in the U.S., both politically and economically. We will explore the historical roots of women's inequality, with a focus on economic issues such as the gender pay gap, work and motherhood, and structural inequalities in the labor force. We will also explore public policy issues related to gender, such as affordable childcare, paid maternity leave, minimum wage and affirmative action. We will compare the status of women in the US to other countries around the world, and look at examples of women in political and economic leadership positions. This course will meet either the ½ unit of Economics OR ½ unit of Participation in Government requirement. This course is open to seniors.

181 POLITICS AND ECONOMICS OF US FOREIGN POLICY**Either Semester ½ Unit**

This semester long course examines U.S. foreign political and economic decisions and the processes by which they are made in an interconnected world and global economy. This course will study the institutions and individuals responsible for foreign policy decisions and consider current U.S. foreign policymaking with a special emphasis on the policy context and choices. This course will provide a dual understanding of the United State's role in world affairs through the lens of the political and economic motivations that shape American actions abroad. Students will actively participate in the classroom to better understand the roles and responsibilities of American and global citizenship. In addition, a final project is necessary in order to fulfill the course requirements. This course will meet either the ½ unit of Economics OR ½ unit of Participation in Government requirement. This course is open to seniors.

180 POLITICS OF GREEN ECONOMICS**Either Semester ½ Unit**

This semester long course aims to provide students with an exploration into the concepts of scarcity and self-interest in the evolving field of Green Economics. Examination is made into the economic and political trade-offs necessary in pursuing energy security and environmental protection at the local, state, national, and international levels. Consideration is given to the economic goals of price stability, full employment, efficiency, equity, and growth, as well the debate over the level of government involvement in the economy. Analysis of public policy will be used to investigate the roles of individuals, linkage institutions, and levels and branches of government in addressing the challenges of environmental degradation and energy independence. In addition, a final project is necessary in order to fulfill the course requirements. This course will meet either the ½ unit of Economics OR ½ unit of Participation in Government requirement. This course is open to seniors.

182 INEQUALITY IN AMERICA**Either Semester ½ Unit**

This semester long course provides an exploration of the various ways in which class inequality impacts American society. The course will analyze how members of various social classes live and relate to one another in America. We will explore the politics of inequality with a focus on strategies used by the wealthy to maintain the status quo. We will also explore the hopes and dreams of all middle class, working class and poor people. This course will explore the meaning of the "American Dream" and discuss the obstacles that impede the ability of many Americans to partake in that dream. The readings in this course will emphasize the dynamics of inequality as they intersect with class, race and gender. This course will explore the multitude of ways in which inequality is the result of the way our society is structured. Students will be expected to respond verbally and in writing to a number of different forms of content. We will be utilizing newspaper articles and long-form journalism, book excerpts, and a variety of other media based content. This will be a project-based curriculum with research papers, essays, film analysis and presentations among the assessments used for the course. This class will also require that students are active participants in class discussions. This course will meet either the ½ unit of Economics OR ½ unit of Participation in Government requirement. This course is open to seniors.

THE UNITED STATES AND HUMANITARIAN CRISES IN THE 20TH CENTURY**Either Semester ½ Unit**

This semester long course will examine America and its role during major human rights violations in foreign affairs during the 20th century. Students will study the role, concept, and structure of the United States' government in relation to its citizens and the international community through case studies of humanitarian crises in the 20th Century. At the end of the course students will examine America's current relationship to humanitarian crises and engage in the civic and democratic process to raise understanding beyond the classroom regarding the crises. This course meets the ½ Unit Participation in Government requirement. This course is open to seniors.

MEDIA & POLITICS**Either Semester ½ Unit**

This semester long course is designed to engage students in a study of the ways in which mass media influences elections and public policy. Students will study such topics as the free press in American history; journalistic ethics; the use of popular media (music & movies) to engage civic participation; the influence of social media on elections; civic literacy and the critical evaluation of propaganda and "fake news;" the consequences of media consolidation and the decline of print media; and the risks and rewards of civic transparency (Wikileaks). Within the course, students will analyze reporting on current events to determine bias and credibility, examine case studies of First Amendment debates, evaluate media campaigns by advocacy groups, and

prepare a full, multi-media campaign in support of a public policy issue. The final grade in this course will be the average of the two quarterly grades and a third grade earned by completing a required final project. This course meets the ½ Unit Participation in Government requirement. This course is open to seniors.

ECONOMICS: PRINCIPLES AND APPLICATIONS

Either Semester ½ Unit

This semester long course will examine real world applications of key economic concepts related to students' lives. Focus will emphasize personal responsibility and concrete practical skills necessary to ensure financial well-being. Sound management practices will be analyzed as they relate to the American Capitalist System, the impact of individuals in Factor and Product Markets, and the roles of individuals in the formation of economic policy. This course meets the ½ unit Economics requirement. This course is open to seniors.

138 WAR IN THE UNITED STATES

Second Semester ½ Unit

This senior level elective explores the connection between the national security interests of the United States and its democratic principles. Case studies of conflicts from the Vietnam War to the War on Terror will examine the instruments of national power, the long-term effects on US society, and the participatory role of the citizen. Students will gain insight into philosophical and psychological nature of warfare. Using a variety of teaching methods, the course will explore the purposes, objectives, and means of the way the US has conducted military operations. In addition to battles and tactics, an assessment of the impact of war on US society and policy will be addressed. This course is open to seniors only. In the event more students request the course than space allows, a lottery will be held to determine the course roster. This course meets the ½ Unit Participation in Government requirement.

Social Studies Electives

137 INTRODUCTION TO SOCIOLOGY

First Semester ½ Unit

This class provides an introduction to basic sociological concepts and themes relevant to the modern world. In addition to core ideas and principles, the course covers topics such as the social construction of the self, race and gender inequality, the sociology of sport, and deviance and social control. While emphasizing college preparatory skills, this elective is appropriate for all social science majors and those looking to enter fields such as social work, psychology, or as a general education requirement for non-majors. Students in this course will have the opportunity to enroll in the SUNY University in the High School Program. As a result, students may earn three SUNY course credits upon successful completion of course work. This course is open to seniors in good academic standing only. In the event more students request the course than space allows, a lottery will be held to determine the course roster.

145 UHS PSYCHOLOGY

Both Semesters ½ Unit

This course is an introductory college preparatory course incorporating important concepts from the fields of psychology. Emphasis is placed on studying human behavior and understanding human nature. Among the unit topics are: the nature of the behavioral sciences and human behavior, physical and mental ability, cultural and social determinants of behavior, abnormal behavior, and behavior therapy and modification. Within each of these units, study is made from a psychological and/or sociological perspective. Specific topics include human aggression, adolescence, alienation, intelligence, and schizophrenia. Emphasis is placed on psychological research through written projects culminating in a final paper involving the use of multiple research strategies. The final grade for this course is an average of two quarterly grades and final projects. Students in this course will have the opportunity to enroll in the University in the High School Program. As a result, students may earn college credits upon earning a passing grade.

This course is open to seniors in good academic standing only. In the event more students request the course than space allows, a lottery will be held to determine the course roster.

190 CIVIC ENGAGEMENT AND LEADERSHIP

Full year

This elective course provides students with the opportunity to study and take informed action around authentic issues impacting society while confronting social injustice. In a research oriented, independent lab setting, students will identify and investigate an issue of their choosing, develop methods to solve or mitigate the problem, and take informed action to address their findings. The course culminates in a Capstone Experience and presentation where students share their research and its impact on public policy with elected officials, civic leaders, and quite reasonably publications. The requirement for Participation in Government will be satisfied upon completion. This course is open to students in 9-12 grades.

TECHNOLOGY AND ENGINEERING EDUCATION

Technology and Engineering Education is 21st century instruction where students collaborate and learn from their experiences designing, creating and testing solutions. In Technology and Engineering Education, students apply Math, Science, and their knowledge of materials, tools and processes.

Shaker High School Students can gain knowledge and skills with their choice of **5 career pathways** in the Technology Education and Engineering Department. Each career pathway or sequence of courses is approved by the New York State Education Department and includes a professional exam, work bases learning experiences and at least one college level course. Students who complete all the required courses and pass the professional exam will receive the Regents CTE endorsement on their diploma.

NYSED Approved Technology and Engineering Career Pathways:

1. **Architectural Drawing**
2. **Building Sciences**
3. **Engineering Technology**
4. **Pre-Engineering**
5. **Mechatronics**

Note: #811 Design & Drawing for Engineering fills the Graduation requirement for an Art / Music Credit

ARCHITECTURAL DRAWING

Grade 9	#811 Design & Drawing for Engineering	1 unit
Grade 10	#813 Architectural Drawing I	½ unit
	#814 Architectural Drawing II	½ unit

811 DESIGN AND DRAWING FOR ENGINEERING

Full Year 1 Unit

***This course may be used to fulfill the Fine Arts graduation requirement.*

This course introduces students to design, technical drawing, and Computer Aided Drafting (CAD). Students will first learn the principles of design and technical drawing. Students will then learn CAD programs like Inventor and Auto CAD. Students will use these skills to solve design problems graphically. DDE is a very beneficial course for any student interested in pursuing a sequence in any technical field or engineering. This course is open to students in grades 9-12.

Students in this course may earn three SCCC college credits. A tuition fee is required for this option.

Grade 11	#838 Computer Aided Drafting	½ unit
	#531 Financial Decision Making (FDM)	½ unit
Grade 12	#815 Architectural Drawing III	½ unit

BUILDING SCIENCES

Grade 9	#811 Design & Drawing for Engineering	1 unit
Grade 10	#850 Wood Construction	1 unit
Grade 11	#813 Architectural Drawing I	½ unit
	#836 Home Electricity	½ unit
Grade 12	#531 Financial Decision Making (FDM)	½ unit

ENGINEERING TECHNOLOGY

Grade 9	#811 Design & Drawing for Engineering	1 unit
Grade 10	#835 Manufacturing Processes for Engineering	1 unit
Grade 11	#812 Principles of Engineering	1 unit
Grade 12	#531 Financial Decision Making (FDM)	½ unit

PRE-ENGINEERING

Grade 9	#811 Design & Drawing for Engineering	1 unit
Grade 10	#835 Manufacturing Processes for Engineering	1 unit
Grade 11	#812 Principles of Engineering	1 unit
Grade 12	#531 Financial Decision Making (FDM)	½ unit
	#817 Capstone Engineering	1 unit

MECHATRONICS

Grade 9	#811 Design & Drawing for Engineering	1 unit
Grade 10	#830 Electronics and Robotics	1 unit
Grade 11	#834 Advanced Robotics	1 unit
Grade 12	#531 Financial Decision Making (FDM)	½ unit

835 MANUFACTURING PROCESSES FOR ENGINEERING (P)

Full Year 1 Unit

Prerequisite: a grade of 85% DDE is required or permission of the supervisor.

Manufacturing Processes for Engineering is a one-unit course that will explore the technological processes that are used to turn various materials into consumer products. The curriculum will include hands-on production activities utilizing raw materials such as metal, wood, plastic, and composite materials. Throughout the course students will develop the skills needed to operate hand tools, machine tools, and advanced computer automated manufacturing technology (Computer numeric controlled machines or CNC). These skills will help students to better understand the capabilities and limitations of common manufacturing processes enabling students to better design for production. Students will also conduct research and explore new technologies and trends in the world of manufacturing.

Student in this course may earn two HVCC college credits by paying the optional tuition fee.

812 PRINCIPLES OF ENGINEERING (P)

Full Year 1 Unit

It is recommended that students complete Algebra 1, two units of science, Design & Drawing for Engineering and Manufacturing Processes for Engineering before this course.

This course will provide students with the opportunity to explore the major areas of engineering. The course will involve product research, engineering design, construction of products and/or prototypes, and communicating engineering ideas in multiple formats. Students will study and apply engineering concepts that have connections to the physical sciences and mathematics learned in their core subject areas. Students will utilize the Engineering Design Process to develop projects that are multifaceted and require engineering teams to complete. Areas of study may include RC Gliders, Lego Machine automation and control, Wind Turbines, Solar Trackers, Truss Bridge Design, and Space Balloons. This course is open to students in grades 11-12.

817 ENGINEERING CAPSTONE (P)

Full Year 1 Unit

Students enter this course through an application process explained in Course #812 POE

The Engineering Capstone course is for students to explore, research, and then develop solutions to an engineering problem they wish to address and then be partnered with local professionals in the field to help determine a possible solution. Students will utilize laboratory facilities to design and then prototype, computer simulate and/or develop mathematical models to address technical solutions to develop their idea. Students will document their research and present and defend their results to a panel of instructors and engineering experts. Students who complete #812 Principles of Engineering may apply for this course.

850 WOOD CONSTRUCTION

Full Year 1 Unit

Construction industry jobs are expected to grow "faster than average" according to the Bureau of Labor Statistics. This course was developed with input from the local carpenters union. Students will learn about tools and machines used in the construction industry. Students will apply this knowledge and develop skills getting them ready to join the Carpenters Local 291's Apprentice Program, go directly to private employment or to college for a construction related career.

For information on the Carpenters Local 291's Apprentice Program please see: <http://carpenterslu291.com/training/apprentice-program/>

851 ADVANCED WOOD CONSTRUCTION

Full Year 1 Unit

Prerequisite grade of 90% in #850 or permission of supervisor.

This course will be a continuation of Wood Construction where students will learn more advanced skills and have the time to master basic skills.

Students must be strong in basic math and able to add, subtract and reduce fractions. Students will use basic algebra and the Pythagorean Theorem.

830 ELECTRONICS AND ROBOTICS (P)

Full Year 1 Unit

Prerequisite: Algebra I.

Think about how many electronic devices you use each day. Now imagine you could design and control your own devices. Electronics and Robotics will give students the skills to be able to understand how electronics work and how to make electronics work for them. The course begins with electronic theory and explores both analog and digital electronics. The digital component of the course is based around Arduino TM, an open source programmable microcontroller. Students will use Arduino to control their digital projects. "C," a programming language very similar to Java, will be used to program the microcontrollers. The goal of this course is for students to use their electronics knowledge and apply it to Robotics and sensor control. This course is mostly hands-on but it does involve a fair amount of basic algebra. Activities include Breadboarding circuits, Arduino coding and programming, servo, stepper and motor control, building and programming Boe-bots, 3D printing robotic arms, and many more. This course is open to all students who have completed Algebra 1.

#834 ADVANCED ROBOTICS (P)

Full Year 1 Unit

Prerequisite grade of 90% in #830 or permission of supervisor.

Take your robotics knowledge and experience to the next level in Advanced Robotics. The following topics are explored throughout the year. We will design, build and program VEX Robots to perform a variety of functions. We will dive into Kinematics and learn about the fundamentals of movement. The uses of motors, actuators, & servos will be explored while building different drive systems. Students will learn to manipulate the use of gearing and drive systems to simplify or change motion. Explore automation and artificial intelligence and use a remote controlled robots to be used in a variety of different environments. The course will culminate with a student designed problem and solution utilizing their knowledge of Robotics.

860 IT ESSENTIALS

Full Year 1 Unit

Information Technology jobs are expected to grow "faster than average" according to the Bureau of Labor Statistics. This course is designed for students interested in computers and networking careers. IT Essentials covers fundamental computer and career skills for entry level IT jobs. The IT Essentials course includes

hands-on labs that provide practical experience to prepare you for enterprise networking. Simulation tools help you hone your troubleshooting skills and practice what you learn.

- › Develop working knowledge of how computers and mobile devices operate.
- › Identify common security threats and vulnerabilities like malware, phishing, spoofing and social engineering.
- › Apply skills and procedures to install, configure and troubleshoot computers, mobile devices and software.
- › Develop critical thinking and problem solving skills using both real equipment and Cisco Packet Tracer, a network configuration simulation tool.
- › Connect with the global Cisco Networking Academy community.

818 METAL PROCESSING

First Semester ½ Unit

This course will explore the areas of raw material resources, shearing, chip removal, fastening, bonding, casting, forging, heat-treating, welding and a fabrication project along with several smaller projects using computer numeric control machines. This course is open to students in grades 9-12.

821 TRANSPORTATION SYSTEMS

First Semester ½ Unit

This course is a comprehensive study of transportation in three different areas: land, aerospace, and marine. Activities include model boat building and launching, model rocket building and launching, and small engine maintenance and repair. This course is open to students in grades 11-12.

822 AUTO MAINTENANCE

Second Semester ½ Unit

This is a general course in the study of land vehicles with a main emphasis on automobiles. Topics include fuel systems, ignition systems, lubrication systems, brakes, transmissions, consumer awareness, and auto insurance. This course is open to students in grades 11-12.

842 ADVANCED AUTO MAINTENANCE

Second Semester ½ Unit

Prerequisite grade of 90% in #822 or permission of supervisor.

This course is for students with a high interest in auto mechanics. Students must possess the necessary skills to work and learn independently. Students will also be expected to assist first year Automotive Maintenance students during scheduled class time as peer tutors. This course is open to students in grades 11-12.

836 HOME ELECTRICITY

Second Semester ½ Unit

This introductory-level course will cover basic electrical theory and its relation to house wiring. Students will wire typical household circuits in accordance with the National Electric Code. This course is open to students in grades 9-12.

847 ADVANCED HOME ELECTRICITY

Second Semester ½ Unit

Prerequisite grade of 90% in #836 or permission of supervisor.

This course is an advanced home electrical course where students will be expected to master basic electrical skills and learn more advanced electrical wiring. Students must be proficient in algebra to determine electrical wire size and electrical load. Students will be able to explain the relationship between Voltage, Current and Resistance using Ohm's Law.

813 ARCHITECTURAL DRAWING 1

Either Semester ½ Unit

This is an entry-level course in architectural design. Students will be introduced to the topics of architectural history, drafting tools and techniques, area/room planning, floor plan design, architectural dimensioning, sectional drawings, exterior elevations, site plans, and career exploration. Students will be introduced to the computer-aided design software called Autodesk Revit, which is used in professional architectural and engineering businesses. The student will conclude the course with development of a set of plans for a desired house. This course is open to students in grades 9-12.

814 ARCHITECTURAL DRAWING II (P)

Second Semester ½ Unit

Prerequisite: Architectural Drawing I.

This is an advanced-level course that covers the design of Architecture and Civil Engineering. The course will focus on the advanced concepts of Architecture and will utilize Autodesk Revit, a professional CAD program. Students will be introduced to the various materials, construction concepts, and mathematical computations needed to properly design and construct a house to local and state specifications. This course is open to students in grades 9-12.

838 COMPUTER AIDED DRAFTING (P)

Second Semester ½ Unit

Prerequisite: #811 DDE.

In this course, students will use the computer as a drawing tool. Students will use computer design programs to draw technical and architectural type drawings. This course is open to students who have completed #811 or by permission of Department Supervisor.

WORLD LANGUAGES

All students are required to have at least two years of instruction in a world language before graduation. In order to achieve a Regents diploma, students must also pass an exam for Checkpoint A Proficiency by the end of 8th grade or they must pass a high school world language course. Students pursuing an Advanced Regents diploma must complete three years of study in a world language with passage of an examination for Checkpoint B Proficiency. Students pursuing five-unit extended sequences in business, technology, art and/or music may substitute such sequences for the world language requirement to receive an Advanced Regents diploma. Students wishing to enter world language study at an advanced level because of background or special circumstances must obtain the permission of the Department Supervisor.

MODERN LANGUAGE 1R

411 FRENCH

421 GERMAN

431 RUSSIAN

NCAA Approved Course | Full Year 1 Unit

The beginning of language study involves the learning of fundamental language patterns. Listening comprehension, speaking, reading and writing skills are developed. Culture and civilization are studied within the framework of these skills. Communicative materials are used as text of instruction.

440 INTRODUCTORY SPANISH

Full Year 1 Unit

The beginning of language study involves the learning of fundamental language patterns. Listening comprehension, speaking, reading, and writing skills are developed. Culture and civilization are studied within the framework of these skills. Communicative materials are used to supplement the text.

441 SPANISH 1R

NCAA Approved Course | Full Year 1 Unit

This course is the continuation of the first year of study of the middle school year. Listening comprehension, speaking, reading, and writing skills are developed. Culture and civilization are studied within the framework of these skills. Communicative materials are used to supplement the text.

MODERN LANGUAGE 2R (P)

412 FRENCH

422 GERMAN

432 RUSSIAN

442 SPANISH

NCAA Approved Course | Full Year 1 Unit

Prerequisite: Modern Language 1R.

This course emphasizes oral and written proficiency while building on the basic concepts learned in Modern Language 1R. Cultural content is integrated with course materials.

MODERN LANGUAGE 3R (P)

413 FRENCH

423 GERMAN

433 RUSSIAN

443 SPANISH

NCAA Approved Course | Full Year 1 Unit

Prerequisite: Modern Language 2R.

This course focuses on improving communication skills, including listening, speaking, reading, and writing. In addition, more complex grammatical structures will be introduced. Students will be exposed to a variety of cultural topics from different authentic sources. The comprehensive examination for Checkpoint B proficiency is the final examination for this course.

MODERN LANGUAGE 4R (P)

414 FRENCH

424 GERMAN

434 RUSSIAN

444 SPANISH

NCAA Approved Course | Full Year 1 Unit

Prerequisite: A Final School Mark of 80 or above in Modern Language 3R, or the approval of the Department Supervisor.

This full-year, college-level course is designed to strengthen students' knowledge of the language through review and practice of previously-learned structures as well as through the study of advanced grammatical concepts. If enrolled in the University in the High School Program, students can earn 3 to 5 credit hours of college credit in French, Spanish, Russian and German through SUNY-ALBANY or SUNY-Oswego University by enrolling in this course for the full year and paying the required tuition fee to the respective institution. The college credit phase of this course requires the student to have passed the comprehensive examination for Checkpoint B proficiency.

MODERN LANGUAGE 5R (P)**415 FRENCH****425 GERMAN****435 RUSSIAN****445 SPANISH****NCAA Approved Course | Full Year 1 Unit**

Prerequisite: A Final School Mark of 80 or above in Modern Language 4R, or the approval of the Department Supervisor.

This full-year, college-level course integrates and extends the skills acquired in previous language study by broadening the students' knowledge of literature, culture and civilization. Speaking in the world language is practiced by the pupil through the medium of reports and projects. Critical thinking through individual, as well as group research projects is encouraged. Controlled and free composition is practiced and related to materials under study. Summarizing, paraphrasing and note taking in the world language is stressed; quality of work is emphasized. Readings are of a classical and contemporary nature. Supplementary reading is extended through use of newspapers, periodicals, magazines and the world language collection in the school library. If enrolled in the University in the High School Program, students can earn 3 to 5 credit hours of college credit in French, German, Russian and Spanish through SUNY ALBANY or SUNY-Oswego University by enrolling in this course for the full year and paying the required tuition fee to the respective institutions. The college credit phase of this course requires the student to have passed the comprehensive examination for Checkpoint B proficiency.

MODERN LANGUAGE ADVANCED PLACEMENT (P)**415 AP FRENCH LANGUAGE****445 AP SPANISH LANGUAGE****NCAA Approved Course | Full Year 1 Unit**

Prerequisite: A grade of 95 or better in Modern Language 4R and teacher recommendation (based on students' listening, speaking, reading and writing skills, class participation, and work habits).

This is a college-level course for highly motivated world language students who have demonstrated extraordinary ability and achievement in their high school world language courses. In this course, students will be exposed to advanced vocabulary and grammar. They will master complex language structures, through composition and conversation practice, while becoming more adept at summarizing, examining and analyzing main ideas and details. Colloquial and cultural aspects of the world language will be presented through music, video, newspapers, magazines, and the Internet. The Advanced Placement Examination is required of all students taking this course. Students who do not take the exam will not receive AP course credit. This examination, which is administered by the College Board, is recognized by almost all colleges for advanced placement or college credit. The fee is charged by the College Board and must be paid or the student may be removed from the course. Students in this course may also take advantage of the University in the High School program.

461 LATIN 1R**NCAA Approved Course | Full Year 1 Unit**

There are three primary aims of Latin 1: first, to train the student in the structure and fundamentals of the language that are basic to the reading of Latin; to introduce the student to the cultural and historical contributions of the Graeco-Roman world to the development of Western civilization; and third, to develop the student's basic English vocabulary skills through the understanding of Latin as the root and origin for much of the English language.

462 LATIN 2R (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: Latin 1R.

The study of the Latin grammar, vocabulary and the Graeco-Roman world continues and intensifies as students prepare for the comprehensive examination for Checkpoint B proficiency in Latin. A major emphasis is placed on analyzing texts according to grammar and content. The comprehensive examination for Checkpoint B proficiency is the final examination for this course.

463 LATIN 3R (P)**NCAA Approved Course | Full Year 1 Unit**

Prerequisite: A Final School Mark of 80 or above in Latin 2R, or the approval of the Department Supervisor.

In Latin 3 students will broaden and deepen their knowledge of Latin grammar, vocabulary, and Graeco-Roman culture. Throughout the course, students will compare and contrast various works such as The Aeneid, The Odyssey, and selections by Suetonius and Horace. If enrolled in the University in the High School Program, students can earn 4 college credits in Latin through SUNY-ALBANY by enrolling in this course for the full year and paying the required tuition fee to the respective institution. The college credit phase of the course requires the student to have passed the comprehensive examination for Checkpoint B proficiency.

PLANNING & NOTES

9TH GRADE – COURSE NAME AND NUMBER

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10TH GRADE – COURSE NAME AND NUMBER

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11TH GRADE – COURSE NAME AND NUMBER

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12TH GRADE – COURSE NAME AND NUMBER

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SHAKER HIGH SCHOOL

Course Catalog 2023-24

SHAKER HIGH SCHOOL

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SHS is accredited by the Board of Regents, and has been recognized by the NYS Education Department as a Reward School of Educational Excellence & Student Achievement.

The North Colonie Central School District offers equal employment and educational opportunities, without regard to age, race, creed, color, national origin, sex, sexual orientation, religion, disability, marital status, genetic disposition, or HIV or hepatitis carrier status.

Inquiries regarding this policy may be directed to Title IX Compliance Officer, Ms. Jenna Bongermينو, Central Office, 91 Fiddlers Lane, Latham, New York 12110, telephone (518) 785-5511, ext. 3381 or Section 504 Compliance Officer, Casey Bardin, 91 Fiddlers Lane, Latham, New York, 12110, telephone (518) 785-8591 ext. 3147

