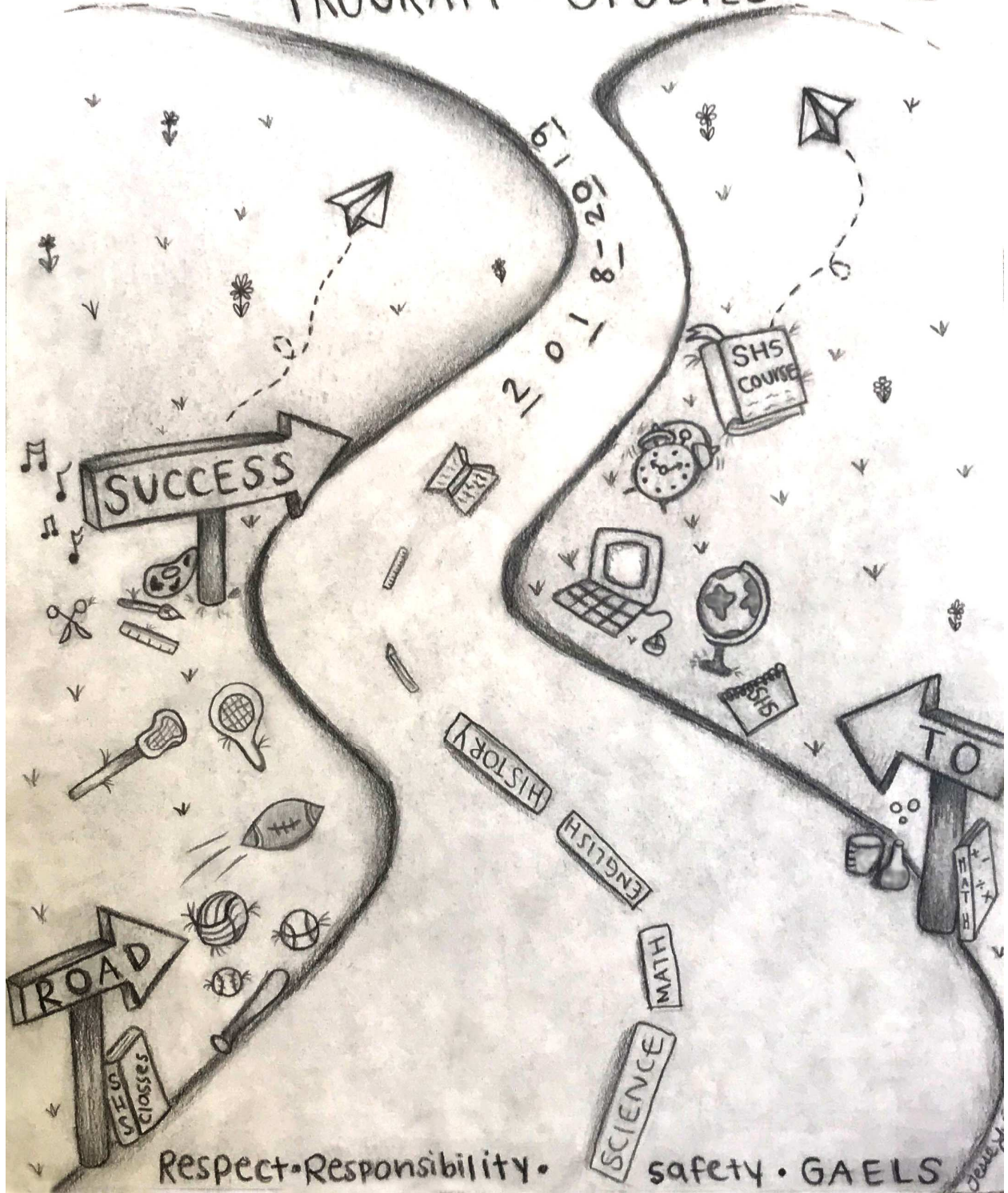


SHELTON HIGH SCHOOL PROGRAM OF STUDIES



SHELTON HIGH SCHOOL

CORE VALUES, BELIEFS, AND LEARNING EXPECTATIONS

*****CORE VALUES AND BELIEFS*****

The Shelton High School community believes that a safe, respectful atmosphere must be established and maintained for all students to achieve excellence and become responsible citizens. Within this environment, we expect all students to be engaged learners and critical thinkers who demonstrate technological literacy.

We believe:

- A respectful, safe atmosphere must be established and maintained for successful teaching and learning;
- Students, staff, and parents, in cooperation with community members, must share responsibility in the teaching and learning process;
- A rigorous curriculum must be provided to accommodate and challenge students in order to prepare them to participate productively in a global society;
- Instruction must provide opportunities for all students to work independently and collaboratively.

*****LEARNING EXPECTATIONS*****

Academic, Social and Civic Competencies:

- Reads and writes effectively
- Researches effectively to investigate topics
- Thinks critically to solve problems
- Presents information and ideas fluently
- Participates actively in civic life

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INTRODUCTION

Shelton High School offers varied programs that will provide an education best suited to your particular needs, interests, and abilities. An opportunity for growth and fulfillment as a student and as a person is presented in a safe environment characterized by respect. Our staff, students, parents, and community work collaboratively to encourage lifelong learning and responsible citizenship. Selection of courses should be made only after careful consultation with parents, teachers, and school counselors.

This booklet, which lists all the courses presently offered at Shelton High School with a brief description of each course, is provided for your convenience in making your selection of courses for next year. Courses run based on enrollment. It is suggested that you bring the booklet home and go over it with your parents before completing your course selection sheet. Please keep it in a safe place since you may need to refer to it, even during the next school year. Copies are also available on the school's website at sheltonhigh.sheltonpublicschools.org.

Top priorities for every high school student should be education, learning, and developing career choices. Therefore, you should take a course of studies that will challenge your intellect, allow you to explore new interests and learning, and lay the foundation for your career. This will allow you to fulfill your graduation requirements. In selecting your courses, keep in mind your personal goals, career goals, educational goals, and objectives for the future. These are all-important factors in helping you decide which courses will make the best program of study to prepare yourself for the rapidly changing world in which you will be living and working.

No student should feel "locked" into any particular pattern of courses but rather should be encouraged to experience the widest variety of offerings, both for his/her own personal enrichment and also as preparation for advanced education or employment upon graduation. More frequently, however, students in high school are not sufficiently secure in a career decision to enable them to plan courses toward a specific career. Students are urged to choose courses, which will allow them the greatest amount of flexibility and at the same time explore some of the vocational programs, which may make career decision-making easier.

It is imperative that students make careful selection for next year's courses. The entire staff, consisting of counselors, teachers, curriculum leaders, and administrators, is ready to answer any questions and assist you in selecting those subjects which best fit your capabilities, needs, and career interests. Please select your courses with the utmost care. ***THE SCHEDULE THAT YOU CHOOSE DURING THIS COURSE SELECTION PROCESS WILL BE TREATED LIKE A CONTRACT. YOU WILL BE EXPECTED TO TAKE AND COMPLETE ALL THE COURSES ON YOUR SCHEDULE FOR THE UPCOMING YEAR. NO COURSE CHANGES WILL BE ALLOWED.***

PROCESS OF COURSE SELECTION

1. Read this course selection booklet carefully and thoroughly.
2. Review your program of studies with teachers, curriculum leaders, and counselors.
3. Discuss your choices with parents.
4. Complete your course selection sheet.
5. Logon to the Infinite Campus student portal to input course requests.
6. Submit printed Request Summary from Infinite Campus to homeroom teacher by the designated date.

COURSE LOAD

All students must select and take a minimum of six (6) academic subjects. Freshmen and sophomores must also select Physical Education/Wellness. Students who elect a 1/2-year course as one of their subjects must also elect a second 1/2-year course in order to meet this minimum requirement.

GRADING PROCEDURES FOR WITHDRAWALS

A great deal of time and effort on the part of the staff is devoted to developing an individual program for each student. It is also essential that students and parents put sufficient time and thought into the process to assure a

satisfactory program. When this combined effort is made, there are few legitimate reasons for making program changes during the school year.

Any course selected should be started with the idea of completion in mind. Trying the subject for a while and then dropping it is discouraged. **When a student is granted a withdrawal from a course after twenty days (ten days for a half-year course) from the commencement of a class, one of the following grades will appear on his/her transcript:**

- “W” will indicate that the student is in “good standing” in the course at the time of withdrawal. This student has made an attempt to be successful in the class and has attended class regularly, submitted homework, etc. A “W” will appear on the student’s transcript.
- “WF” will indicate that the student is not in “good standing” in the course at the time of withdrawal. A “WF” will be recorded on the student’s transcript.

A student requesting a course drop or change must continue to attend the class originally assigned until all transfer paperwork is formally completed. A student who stops attending class before the class is officially dropped will be subject to disciplinary action for cutting class.

GROUPING PHILOSOPHY

Shelton High School is a learning community where students are expected to meet high academic and behavioral standards while developing to their full potential. SHS offers courses of instruction to meet the needs of all students and encourages students to strive for academic excellence. It is possible for a student to be in one group in a given discipline and a different group in another course. Grouped subjects are indicated on the report card, recorded on transcripts and become a part of the student’s permanent record. Summer reading is required at all levels. Groupings are established with the following guidelines:

HONORS

Honors courses are closely aligned with the academic demands of most four-year colleges and require exceptional proficiency in all areas. Honors courses demand in-depth study and significant time out of class for completion of independent reading and research and preparation of comprehensive papers, reports and other assignments. Some courses may require summer homework.

- The student is highly self-motivated and capable of extensive independent study.
- The student is willing to extend beyond specific assignments.
- The student shows continual willingness to be challenged intellectually through the use of critical thinking and complex problem solving.
- Standardized test scores may be used to support placement as well.

COLLEGE PREPARATORY

College Preparatory courses reflect the academic demands of many four-year colleges and require proficiency in the skills related to the field of study. Projects, reading and assignments require a significant amount of time out of class to complete. Review and reinforcement of needed skills are ongoing.

- The student demonstrates motivation and effort.
- The student demonstrates responsibility and promptly completes independent reading and research.
- The student shows a willingness and ability to use critical thinking and complex problem solving.
- Standardized test scores may be used to support placement as well.

ACADEMIC

Academic courses offer students a solid foundation for a variety of post-secondary options. Students who enroll in these courses are taught strategies to further develop academic proficiency in the subject area. Reinforcement of

academic skills and motivation are emphasized. Projects and assignments require time out of class to complete.

- The student shows a need to improve subject area proficiency.
- The student demonstrates a need to develop stronger academic skills.
- The student demonstrates a need for reinforcement of problem solving and critical thinking skills.
- Standardized test scores may be used to support placement as well.

ADVANCED PLACEMENT

Advanced Placement (AP) is a rigorous academic program that provides students with exposure to college-level work during high school. Through these courses AP certified teachers assist students to develop and apply the skills, abilities and content knowledge they will need later in college. Each AP course is modeled on a comparable college course. AP courses allow students to earn college credit, stand out in the admission process and broaden intellectual horizons. Most AP courses require summer work.

AP courses culminate in a college-level assessment developed and scored by college, university, and secondary school faculty. Each AP exam contains a free response section as well as multiple choice questions. Student performance on AP exams is rewarded by colleges and universities worldwide. The current cost of an AP exam is \$94.

AP courses are offered to students in English, Mathematics, Science, Social Studies, and World Languages.

ADVANCED PLACEMENT BIOLOGY #4006445 & LAB #4006445L (9th, 10th, 11th, & 12th grades)

Advanced Placement Biology is designed to be the equivalent of a college level introductory biology course for biology majors. The two main goals of AP Biology are to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process. Primary emphasis will be placed on developing and understanding important biological concepts and their practical application in everyday life. Topics include biochemistry, organisms and populations, biotechnology, cell energy transformations, genetics and evolution. Thirteen labs mandated by the College Board will be completed throughout the year. Additional labs, outside readings and interactive web site activities will be utilized by instructor to supplement units when necessary.

ADVANCED PLACEMENT CALCULUS AB #3012445 (12th grade)

This course is primarily concerned with developing the student's understanding of concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus with concepts, results and problems being expressed geometrically, numerically, analytically, and verbally. The TI 89, 83+ or 84+ graphing calculator is required as part of the AP exam, and ownership is highly encouraged.

Prerequisite: successful completion of Precalculus

ADVANCED PLACEMENT CALCULUS BC #302445 (11th & 12th grades)

AP Calculus BC is roughly equivalent to both first and second semester college calculus courses. It extends the content learned in AB to different types of equations (polar, parametric, vector-valued) and new topics (such as Euler's method, integration by parts, partial fraction decomposition, and improper integrals), and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. The TI83+ or 84+ graphing calculator is required as part of the AP exam. **Prerequisite: successful completion of AP Calculus AB or Precalculus**

ADVANCED PLACEMENT CHEMISTRY #4016345 & LAB #4016345L (10th, 11th, & 12th grades)

The AP Chemistry course provides students with a college-level foundation to support future advanced studies in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. It is strongly recommended that students have completed a first-year high school chemistry course before enrollment in an AP Chemistry class. In addition, the recommended mathematics prerequisite for an AP Chemistry class is the successful completion of a second-year algebra course.

ADVANCED PLACEMENT COMPUTER SCIENCE #3210345 (10th, 11th, & 12th grades)

This is a college level computer science course with major emphasis on programming methodology, algorithms, and data structures. Applications are used to develop awareness of the need for particular algorithms and data structures, as well as to provide topics for programming assignments. The JAVA programming language will be the vehicle for implementing computer based solutions to particular programs. The course content is prescribed by the current College Entrance Examination Board's Advanced Placement Course Description for Advanced Placement Computer Science. Students who enroll in this course should plan on additional computer time outside of class. **Prerequisite: successful completion of Programming I**

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES #3211445 (9th, 10th, 11th, & 12th grades)

AP Computer Science Principles introduces the foundations of computer science with a focus on how computing powers the world. Along with the fundamentals of computing, students will learn to analyze data, create technology that has a practical impact, and gain a broader understanding of how computer science impacts people and society. In addition, students will explore the fundamentals of computing, including problem-solving, working with data, understanding the internet, cybersecurity, and programming. **Prerequisite: successful completion of Algebra I**

ADVANCED PLACEMENT ENGLISH LANGUAGE & COMPOSITION #1003335 (11th grade)

This course prepares students for the AP English Language and Composition exam. Students will write in a variety of forms – narrative, exploratory, expository, and argumentative. The purpose of this course is to enable students to read complex texts with understanding and to write high-level prose that allows for effective communication with mature readers. Students in this class will also concentrate on an in-depth study of American literature. This course is equivalent to a college composition course.

ADVANCED PLACEMENT ENGLISH LITERATURE & COMPOSITION #1005445 (12th grade)

This course prepares students for the AP English Literature and Composition exam. Students enrolled in this course will undertake an intensive study of representative works of recognized literary merit from world literature. Students will concentrate on the elements of structure, style, theme, figurative language, imagery, symbolism, and tone. Attention to textual detail and historical context will provide a foundation for interpretation. Summer reading is required.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE #4000345 & LAB #4000345L (10th, 11th, & 12th grades)

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. **Prerequisites: successful completion of two years of a lab science and one year of Algebra is recommended but not required**

ADVANCED PLACEMENT EUROPEAN HISTORY #2004445 (10th, 11th, & 12th grades)

This Advanced Placement course is geared for those students who wish to pursue a college level social science course. Students will learn the basic chronology, concepts, and major historical facts and personalities, and historical analysis of trends from approximately 1450 (the High Renaissance) to the present.

ADVANCED PLACEMENT FRENCH LANGUAGE #1515555 (11th & 12th grades)

This course is designed to prepare students to communicate proficiently through the three modes of communication (Interpersonal, Interpretive, and Presentational) as defined in the "Standards for Foreign Language Learning in the 21st Century." For this reason, the course will be conducted entirely in French. Coursework will provide students with opportunities to achieve the Course Overarching Premise: "When communicating, students in the AP French Language and Culture course will demonstrate an understanding of francophone cultures, incorporate interdisciplinary topics (connections), make comparisons between their native language and French and between cultures (comparisons), and use the target language in real-life situations (communities)." **Prerequisite: successful completion of French III**

ADVANCED PLACEMENT PHYSICS 1 ALGEBRA-BASED #4010355 & LAB #4010355L (9th, 10th, 11th, & 12th grades)

This is an introductory, algebra-based physics course, promoting conceptual physics reasoning and understanding, specifically for engineering, premed, or other advanced science pathways with a focus on: kinematics; Newton's laws of motion; torque; rotational motion and angular momentum; gravitational and circular motion; work, energy, and power; linear momentum; oscillations; mechanical waves and sound; and an introduction to electric circuits. This course is designed to meet the requirements for a first semester, college physics course. This course is a

prerequisite for AP Physics 2 Algebra-Based. **Prerequisite: concurrent enrollment in Algebra II or higher math course**

ADVANCED PLACEMENT PHYSICS 2 ALGEBRA-BASED #4010365 & LAB #4010365L (10th, 11th & 12th grades)

This is an introductory, algebra-based physics course, promoting conceptual physics reasoning and understanding, with a focus on: fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics, electric circuits with capacitor; magnetic fields; electromagnetism; physical and geometric optics; and topics in modern physics. This course is designed to meet the requirement for a first semester, college physics course. **Prerequisite: successful completion of AP Physics 1 Algebra-Based/Lab**

ADVANCED PLACEMENT PSYCHOLOGY #2005445 (11th & 12th grades)

This full-year psychology course is geared for students who wish to pursue a college level psychology course. This course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to psychological facts, principles, and phenomena associated with each of the major subfields with psychology.

ADVANCED PLACEMENT SPANISH LANGUAGE #1527445 (11th & 12th grades)

The AP Spanish course focuses on the mastery of the four skills of listening, speaking, reading, and writing. Aural/oral skills are improved through the use of tapes and daily conversation practice. Intense grammar review is ongoing throughout the year. Students also read literary and journalistic prose, understand lectures and conversational language, participate in class discussion and conversations, and write essays. **Prerequisite: successful completion of Spanish III**

ADVANCED PLACEMENT STATISTICS #3011345 (10th, 11th, & 12th grades)

The purpose of the Advanced Placement course in Statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, experimental design, anticipating patterns, and statistical inference. The TI 83+ or 84+ graphing calculator is required as part of the AP exam, and ownership is highly encouraged. **Prerequisite: successful completion of Algebra II**

ADVANCED PLACEMENT UNITED STATES GOVERNMENT & POLITICS #2010345 (11th & 12th grades)

The AP United States Government and Politics course gives students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret United States government and politics and the analysis of specific examples. It requires familiarity with the various institutions, groups, beliefs, and ideas that constitute United States government and politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. This course will also fulfill the State of Connecticut Civics requirement.

ADVANCED PLACEMENT UNITED STATES HISTORY #2003335 (10th & 11th grades)

This Advanced Placement course is geared for those who wish to pursue a college level social science course in their junior year. The AP History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States History. Students will learn to assess historical materials, their relevance to given interpretive problems, reliability and importance, and to weigh the evidence and interpretations presented in historical scholarships. This course may be taken in place of the regular required United States History I and United States History II courses.

ADVANCED PLACEMENT WORLD HISTORY #2001115 (9th grade)

This Advanced Placement course is geared for those students who wish to pursue a college-level social science course. Course content includes the investigation of five course themes and nineteen key concepts in six different chronological periods, from approximately 8000 B.C.E. to the present.

Advanced Placement Capstone

AP Capstone is an innovative diploma program from the College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions.

AP Capstone is built on the foundation of two AP courses—AP Seminar and AP Research—and is designed to complement and enhance the discipline-specific study in other AP courses. Participating schools can use the AP Capstone program to provide unique research opportunities for current AP students, or to expand access to AP by encouraging students to master the argument-based writing skills that the AP Capstone program develops.

AP Capstone was developed in response to feedback from higher education. The two AP Capstone courses, with their associated performance tasks, assessments, and application of research methodology, require students to:

- Analyze topics through multiple lenses to construct meaning or gain understanding
- Plan and conduct a study or investigation
- Propose solutions to real-world problems
- Plan and produce communication in various forms
- Collaborate to solve a problem
- Integrate, synthesize, and make cross-curricular connections

AP Capstone Diploma: Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma.

AP Seminar and Research Certificate: Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP exams will receive the AP Seminar and Research Certificate.

ADVANCED PLACEMENT SEMINAR #5002225

(10th, 11th, & 12th grades)

This foundational course engages students in cross-curricular conversations where they can explore academic and real-world topics by using an inquiry framework. Students practice reading and analyzing articles, research studies, foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver presentations. Ultimately the course aims to equip students with the power to analyze and evaluate information with accuracy in order to craft and communicate evidence-based arguments.

The following Advanced Placement course will be offered during the 2019-2020 school year:

ADVANCED PLACEMENT RESEARCH #5003335

(11th & 12th grades)

This course allows students to deeply explore the academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. The goal is for students to further skills acquired in AP Seminar by understanding research methods; employ ethical research practices; and analyze and synthesize information as they address a research question. Successful completion of AP Research fulfills the Capstone graduation requirement.

UNIVERSITY OF CONNECTICUT EARLY COLLEGE EXPERIENCE

UConn Early College Experience (ECE) provides academically motivated students the opportunity to take university courses while still in high school. These challenging courses allow students to preview college work, build confidence in their readiness for college and earn college credits that provide both an academic and a financial head-start on a college degree. Students who participate in ECE are considered University of Connecticut non-degree students. It is not necessary to attend the University of Connecticut as an undergraduate to benefit from UConn Early College Experience. Every ECE course is equivalent to the same course at the University of Connecticut. UConn ECE students must successfully complete the course with a grade of C or above in order to receive university credit. Students receive a UConn transcript verifying college credit. UConn course credits are highly transferable to many colleges and universities across the country. Currently, students are charged \$35 per registered course credit. There is also a University Resource fee of \$20 per course. For additional information visit: www.ece.uconn.edu.

UConn ECE instructors, who are high school teachers certified as adjunct professors by UConn faculty, create a classroom environment fostering independent learning, creativity and critical thinking – all pivotal for success in college. To support rigorous learning, University of Connecticut library resources are available to all UConn ECE students.

UCONN CALCULUS 1131Q/1132Q (8 UConn credits) #3010355 (11th & 12th grades)

This course is designed to provide students with the fundamentals of both differential and integral Calculus. Students will take part in the study of the theory of Calculus and its application to the real world while using appropriate technology. Topics covered include limits, continuity, differentiation, antidifferentiation, definite integrals, transcendental functions, formal integration, polar coordinates, infinite sequences and series, vector algebra, and geometry. This course is recommended for students pursuing further study in the fields of mathematics, science, business, engineering or other highly technical fields at the college level. Current methods of teaching mathematics indicate that ownership of a graphing calculator is highly recommended for this course. **Prerequisites: successful completion of Precalculus/UConn application**

***UCONN DISCRETE MATHEMATICS 1030Q (3 UConn credits) #3010305 (11th & 12th grades)**

Under the University of Connecticut ECE Program, three college credits may be earned for satisfactory completion of this course. It is equivalent to Math 1030Q at UConn. This is a practical mathematics course for the college-bound student. It includes a study of problem-solving, simultaneous linear equations, counting and probability, graph theory, deductive reasoning, the axiomatic method, and finite geometries and number systems. There are applications to business and economics. **Prerequisites: successful completion of Algebra II/UConn application**

***UCONN ECONOMICS 1000—Essentials of Economics (3 UConn credits) #2067345 (11th & 12th grades)**

Economic concepts to be taught include opportunity costs, demand and supply, incentives, comparative advantage, inflation and employment policies, balance of international payments, and economic growth. This course will help students prepare for further UConn Economics courses while earning college credit. **Prerequisite: UConn application**

***UCONN ECONOMICS 1201 – Principles of Microeconomics (3 UConn credits) #2069345 (11th & 12th grades)**

This course covers how the invisible hand of the market functions through the economic decisions of firms and individuals. Course content includes how prices, wages and profits are determined, resources are allocated, and income is distributed. Topical subjects, such as, energy policy and health care are also covered. **Prerequisites: successful completion of UConn Economics 1202/UConn application**

***UCONN ECONOMICS 1202 – Principles of Macroeconomics (3 UConn credits) #2007345 (11th & 12th grades)**

This course covers the organization and function of the economic system as a total unit. Economic decisions, institutions, and policies that determine levels and rates of growth of production, employment and prices will be studied as well as government budget deficits and current interest rate policy. **Prerequisite: UConn application**

UCONN ENGINEERING 2110 (3 UConn credits) #5500005 (11th & 12th grades)

The function of this course is twofold. First, it aims to teach the fundamental concepts and techniques of engineering mechanics (statics and dynamics). Second, it aims to show the implementation of these methods in engineering design. Building on advanced mathematical skills, basic concepts of statics and dynamics are introduced, practiced, and applied to simple engineering problems. Students will obtain modeling knowledge, tools, and experience appropriate for a first-year engineering course, providing the foundation for higher-level engineering courses. **Prerequisites: successful completion of Precalculus and completion of or concurrent enrollment in Calculus/UConn application**

***UCONN ENGLISH 1010 – Seminar in Academic Writing (4 UConn credits) #1051345 (11th & 12th grades)**

This college course will include instruction in academic writing through interdisciplinary reading. Assignments emphasize interpretation, argumentation, and reflection. Revision of formal assignments and instruction on grammar, mechanics, and style also will be included. Conferences with instructors are required. **Prerequisite: UConn application**

UCONN FUNDAMENTALS OF MUSIC 1011 WITH MUSIC THEORY I (3 UConn credits) #7504255 (11th & 12th grades)

Music Theory I is taken in conjunction with this UConn Fundamentals of Music/Ear Training I (1011) class. This course reviews in detail the language of music through the elements of rhythm, pitch, intervals, notation, and modality. Students will acquire knowledge of sight-reading and aural dictation. Introduction and construction of four-part harmony including modulation and analysis of classical and contemporary music are covered. Students must have permission of instructor. **Prerequisite: UConn application**

***UCONN MUSIC APPRECIATION 1001 (3 UConn credits) #7552345 (11th & 12th grades)**

This college course will cover how music reflects and affects culture, society, and individuals. Musical selections range from medieval through contemporary. Listening skills and appropriate vocabulary are developed and stressed through a series of musical examples. This course may be taken in conjunction with either *Music Appreciation I or *Music Appreciation II. **Prerequisite: UConn application**

UCONN PHYSICS 1201Q/1202Q (8 UConn credits) #4021345 (11th & 12th grades)

This course is designed to provide a foundation for more advanced courses in physics. The topics covered include classical dynamics, rigid-body motion, harmonic motion, waves, fluids, thermodynamics, electricity, magnetism, and optics. Laboratory work is a key component of the course and offers fundamental training in precise measurements. Students should have a strong mathematical background to ensure successful comprehension and completion of this course. Students are required to take the final exam provided by the UConn Department of Physics. **Prerequisites: successful completion of Precalculus and Chemistry I/Lab is recommended/UConn application**

UCONN SPANISH 3178 – Intermediate Spanish Composition (3 UConn credits) #1528345 (11th & 12th grades)

This college course provides a thorough review of grammar and methodical practice in composition leading to a command of practical idioms and vocabulary. Students will analyze different literary texts to improve their grammar and vocabulary. **Prerequisites: successful completion of Spanish III/UConn application**

UCONN SPANISH 3179 – Spanish Conversation: Cultural Topics (3 UConn credits) #1529345 (11th & 12th grades)

This college course provides an in-depth development of speaking skills through cultural readings, group discussions and oral presentations on selected topics concerning the Spanish-speaking world. **Prerequisites: successful completion of Spanish III/UConn application**

UNIVERSITY OF BRIDGEPORT DUAL ENROLLMENT PROGRAM

Shelton High School is very pleased to have partnered with the University of Bridgeport to provide academically motivated students the opportunity to enroll in college courses while in high school. Students who participate in the program are considered University of Bridgeport non-degree students. Students who successfully complete a course can request from the university a transcript verifying college credit.

UB CALCULUS I (4 UB credits) #3033555 (11th & 12th grades)

This course is the equivalent of University of Bridgeport Math 110 Calculus 1 and Analytic Geometry. Topics covered include limits, derivatives and their application, antiderivatives, the fundamental theorem of calculus, and applications of integration. Students will be introduced to Derive symbolic manipulation software.

UB ENGINEERING ENG111 (3 UB credits) #5556055 (10th, 11th, & 12th grades)

This is an introductory course that helps students in understanding how to program microcontrollers and also how to use them with different sensors and actuators. This course is designed around an open source microcontroller, namely the Arduino. **Prerequisite: successful completion of Engineering & STEM Careers**

UB ENGINEERING GRAPHICS MEEG112 (3 UB credits) #5556505 (10th, 11th, & 12th grades)

This course provides an introduction to engineering graphics and visualization including engineering drawing and 3-D solid modeling with a computer aided design (CAD) package. Topics include the design process, multiview projection and sectioning, dimensioning, tolerancing, and working drawings. **Prerequisite: successful completion of *CAD**

UB GENERAL CHEMISTRY I CHEM103 (4 UB credits) #4027455 & LAB #4027455L (11th & 12th grades)

UB Chemistry is a study of basic chemical principles and their applications, designed for science and engineering majors. The course includes theoretical and experimental studies of such topics as composition and structure of matter, stoichiometry, chemical bonding, gases, atomic and molecular structure, and periodic trends. **Prerequisite: successful completion of Algebra I**

UB GENERAL PHYSICS I PHYS201 (4 UB credits) 4022455 & LAB #4022455L (11th & 12th grades)

Would you like to go to college with 4 physics credits already on your transcript? UB General Physics I may be the

course for you. This non-calculus based course will present an introduction to classical mechanics, heat and thermodynamics. Topics may include linear motion, vectors and two-dimensional motion, kinematics, Newton's laws of motion, work and energy, and temperature and heat. Students will apply their knowledge in the lab setting performing experiments, interpreting data, and problem-solving. The use of educational technologies and communicating quantitative information will be mastered by students. **Prerequisite: successful completion of Algebra II**

HOUSATONIC COMMUNITY COLLEGE COLLEGE CAREER PATHWAYS

Housatonic Community College (HCC) participates in the College Career Pathways (CCP) 2+2 Associate Degree Program. The College Career Pathways program is a high school-based and college-based experience that combines academic and occupational learning.

College Career Pathways (formerly Tech Prep) serves as a link between secondary and post-secondary education and offers a program of study to prepare students for career fields. The College Career Pathways program is designed to provide academic preparation in a career area. A grade of C or better must be earned by the student to be awarded college credit for the articulated course(s), as defined and approved by HCC faculty. Students successfully completing these courses will earn 3 college credits that may be transferable to any college or university.

High school students interested in this program should speak with their school counselor or the Housatonic Coordinator for High School Outreach Programs. The following HCC CCP program courses are offered at our high school.

Students should refer to the course selection booklet and speak to their school counselor or the appropriate department chairperson for information about the Career Pathways program.

***HCC CERAMIC HANDBUILDING E163 #7055451 H** **(10th, 11th, & 12th grades)**

This course is an examination of the physical properties of clay with an emphasis on the development of personal imagery. Students will work with traditional pottery techniques beginning with the coil and slab and extending these experiences to include combinations of media. Successful completion of this course allows students to earn 3 credits at HCC which may be transferable to other universities.

***HCC DRAWING I E111 #7051351 H** **(10th, 11th, & 12th grades)**

This course is an examination of the fundamentals of drawing. Students will work on the skillful use of line, value, distribution, composition, and perspective systems. Drawing as a visual tool for visual thinking will also be introduced. Successful completion of this course allows students to earn 3 credits at HCC which may be transferable to other universities.

HCC FINANCIAL ACCOUNTING I #6004241 H **(10th, 11th, & 12th grades)**

This college-level course is designed, in cooperation with Housatonic Community College, for the student interested in acquiring accounting competency skills equal to those expected in a college financial accounting course. The course is a study of the accounting process as it relates to the recording, measurement, and communication of the business entity's financial data and is recommended for all students pursuing a career in business.

HCC MARKETING #6004341 H **(10th, 11th, & 12th grades)**

This full-year course is designed for sophomores, juniors and seniors who are interested in furthering their education in the field of marketing. Students will utilize the Housatonic Community College curriculum to study the scope and significance of marketing, management, and entrepreneurial principles; to make rational economic decisions; and to exhibit social responsibilities in a global economy. Specific emphasis is placed on marketing consumer goods while developing the essential elements of the "marketing mix."

HOUSATONIC COMMUNITY COLLEGE COLLEGE CONNECTIONS PROGRAM

Housatonic Community College has established a series of technology and art courses designed to provide high school students the opportunity to consider these career paths. Through the College Connections program, students in high school can participate in a series of courses that can earn both high school and college credit.

+*HCC MANUFACTURING I #5554121 H (11th & 12th grades)

This double period course includes the study of orthographic projection and topics pertaining to lines and their uses, auxiliary views, sectional views, basic and special dimensioning, dimensioning for holes, chamfers, angle, tapers, keyways diameters and radii, geometric tolerancing and dimensioning. Students will also learn the use of cut off saws, drill presses, vertical band saw, drilling tools, countersinking, reaming and counterboring. This course will also embed Manufacturing Math into the curriculum. Course includes MFG E124 Blueprint Reading and MFG E151 Manufacturing Machinery-Drill Press and Saw/Benchwork. Students who successfully complete this course will earn credits that may be transferable to any college or university.

+*HCC MANUFACTURING II #5554201 H (11th & 12th grades)

This double period course is designed to develop dimensional development ability for inspectors, technicians, quality control personnel, and others who require this skill in their manufacturing environment that emphasizes open inspection methods. Students will also learn how to use manufacturing machinery including milling, lathe and grinding. The study of milling includes vertical and horizontal milling machines, cutting tools and holders, setups, spindles, and arbors and work holding methods. The study of lathe includes identification of major components, tool holders and tool holding, cutting tools, operating the controls, facing and center drilling. The study of grinding includes the selection and identification of grinding wheels, truing, dressing and balancing wheels, grinding fluids, using the horizontal spindle reciprocating table surface grinder, using the cylindrical grinder, and using the tool and cutter grinder. Course includes MFG E120 Meteorology, MFG Introduction to Manufacturing/Machinery, MFG E152 Grinding, MFG E154 Lathe I, and MFG E155 Milling I. Students who successfully complete this course will earn credits that may be transferable to any college or university. **Prerequisite:** **+*HCC Manufacturing I**

The following HCC courses will be offered during the 2019-2020 school year:

+*HCC MANUFACTURING III #5554301 H (12th grade)

This double period course introduces students to Computer Numeric Control topics including Cartesian coordinates, safe use of CNC equipment, set up and operation of a two axis CNC lathe and a three axis CNC machining center, programming and runoff of parts. This course also embeds CMM coordinate measurement and various CNC and manual projects into the curriculum. Course includes MFG E156 Manufacturing Machinery-CNC I. Students who successfully complete this course will earn credits that may be transferable to any college or university. **Prerequisite:** **+*HCC Manufacturing II**

+*HCC MANUFACTURING IV #5554401 H (12th grade)

This double period course provides students an introduction to the techniques of generating graphic images with computers using AutoCad and Solidworks software. Topics include the use of Computer Aided Drafting (CAD) for geometric construction, computer technology, hardware descriptions and requirements, file manipulation and management, two dimensional and three dimensional geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies, orthographic projection, and pictorial sketching. This course also embeds career awareness, CNC and manual projects that allow students to demonstrate their cumulative development of skill sets. Course includes CAD E110-Introduction to CAD. Students who successfully complete this course will earn credits that may be transferable to any college or university. Students who complete this course will/may earn a Connecticut Career Certificate and/or Licensure in Manufacturing. **Prerequisite:** **+*HCC Manufacturing III**

CLEP

The College Board's College-Level Examination Program (CLEP) is accepted by 2,900 colleges and universities and administered in more than 1,800 test centers. This rigorous program allows students to demonstrate their mastery of introductory college-level material and earn college credit. Students can earn credit for what they already know by getting qualifying scores on any of the 33 examinations.

While CLEP is sponsored by the College Board, only colleges may grant credit toward a degree. Not all colleges have the same CLEP policies—some colleges accept credit for a few exams, while others accept credit for all of them. A college often grants the same amount of credit to a student who earns satisfactory scores on a CLEP examination as it does for a student who successfully completes the related course.

Students should research the CLEP test, online test preparation, testing site, score and participating institutions at <https://clep.collegeboard.org/>.

Composition and Literature

American Literature
Analyzing and Interpreting Literature
College Composition
English Literature
Humanities

History and Social Sciences

American Government
History of the United States I
History of the United States II
Human Growth and Development
Introduction to Education Psychology

World Languages

French Language: Levels 1 and 2
German Language: Level 1 and 2
Spanish Language: Levels 1 and 2

Science and Mathematics

Biology
Calculus
Chemistry
College Algebra
College Mathematics
Natural Sciences
Precalculus

Business

Financial Accounting
Information Systems
Business Law
Principles of Management
Principles of Marketing

REGIONAL PROGRAMS

Parents and students are encouraged to explore other educational opportunities that are offered in the school district locally and regionally. These options include magnet, charter, lighthouse and vocational-technical schools; Open Choice and inter-district programs; and vocational agriculture centers. Contact the School Counseling Department for further information on these School Choice options.

Bridgeport Regional Aquaculture Science and Technology Education Center, Grades 9–12 (#4030140):

Located in Bridgeport this program provides students with the opportunity to investigate engine repair, marine electronics, boat design, vessel construction techniques, marine restoration, commercial fishing, and vessel operations. Instruction is offered in marine sciences such as marine pathology, marine chemistry, meteorology, and aquaculture finfish and shellfish production. The program of studies assists students to become environmentally informed citizens, and prepares them to work in marine related areas or to pursue higher education opportunities in marine studies. Regular academic classes are taken at Shelton High School in the morning and Aquaculture classes are taken in Bridgeport from 11:35 to 2:00 p.m. Interested students should contact their school counselor for an application and additional information.

Bridgeport Regional Aquaculture Science and Technology Education Center—BACA, Grade 12 (#4030150):

The goal of the BACA Program is to offer students the practical knowledge and skills necessary to pursue either employment in the marine environment or a smooth transition to the many post-secondary educational opportunities available. The BACA Program is designed primarily for 12th grade students who have expressed a desire for a concentrated, interdisciplinary approach to aquaculture education. Students will be responsible for the practical application of principles and concepts of biology, chemistry, physics, math, history, earth science, and astronomy as it relates to aquaculture. Students enrolled in the BACA program are awarded up to 5 credits. The integrated course of studies offers an in-depth study of aquaculture to include the origins of aquaculture, aquatic ecosystems, aquaculture engineering, and survey and analysis. The activities of the program are enhanced by the use of the research vessel M/V Catherine Moore.

Regional Center for the Arts, Grades 9–12 (#7060140): Located in Trumbull, RCA is a performing arts magnet high school. Students attend Shelton High School in the morning and attend RCA Monday through Thursday from 1:15 to 4:30 p.m. Courses in dance, theatre, musical theatre, film/video production, and some creative script writing are offered. Interested students should contact their school counselor for additional information and an application.

INDEPENDENT STUDY

Independent Study is designed for the student who is broadly and deeply curious about a particular subject and who can best fulfill his/her needs through an in-depth examination of a specific topic or subject which is not provided in the regular course offerings. It may involve research in the library, construction in a shop, investigation in a laboratory or a community project. It will be a self-directed learning activity completely divorced from any course requirement and will place emphasis on self-responsibility and self-regulation for learning. It is possible to earn up to one full credit in this manner. Any student interested in enrolling in an Independent Study course should first consult with his/her counselor and then obtain the Independent Study application. The Principal will give final approval. Deadline for submitting Independent Study Applications is ten days from the commencement of the semester. This program is only possible when a course offering the same material is not offered.

TEACHING ASSISTANT

Teaching Assistant is designed to provide students with the opportunity to explore the field of teaching. The Teaching Assistant is limited to senior and junior students who are in good standing academically and behaviorally. Participating students must have demonstrated better than average competency in the area in which they wish to assist. The Teaching Assistant assignment is in place of a study hall. Students may not drop courses to add a Teaching Assistant. Students may only take a Teaching Assistant course one time in his/her high school career. A grade of Pass ("P")/Fail ("F") will be used to assess the student for each quarter and for a final grade. Untracked weight will apply. Any student interested in enrolling as a Teaching Assistant should obtain the Teaching Assistant Application from his/her counselor. The student will complete the application, along with all necessary signatures, and submit it to the Principal. Deadline for submission is ten days from the commencement of the semester. No late applications will be accepted. The Principal will determine approval and schedule the student into the TA period.

ONLINE COURSE CREDIT POLICY

Shelton High School will only accept online learning requests from an approved accredited institution. A student requesting to take an online course for credit must complete the appropriate application, secure all required signatures, and submit the application by the defined deadline. A maximum of two credits per year, including summer school online credit, will be allowed for online learning. Online courses will not be tracked, with the exception of advanced placement online coursework. Online courses will be calculated into a student's GPA as untracked courses, with the exception of advanced placement online coursework. The student/parent/guardian is responsible for all financial expenses or fees for online learning. The high school administration reserves the right to deny applications for online coursework and acceptance of online credits.

VIRTUAL HIGH SCHOOL #1685400

(9th, 10th, 11th, & 12th grades)

Virtual High School is an accredited provider of "for-credit Net Courses." VHS is a nonprofit, worldwide collaboration of schools, teachers and students founded in 1996 by industry leaders including Apple, Cisco, Dell and Microsoft in partnership with the National Education Association. VHS offers approximately 200 courses in Arts, Business, English, Language Arts, World Language, Life Skills, Mathematics, Science, Social Studies and Technology. VHS Net Courses are either one semester or a full year in duration. Courses are delivered to students around the United States and the world via the internet. Using a private password, each student accesses his or her Net Course from any computer with an internet connection. VHS offers full year Advanced Placement courses. Virtual High School courses using the AP designation have been approved by the College Board's AP audit. Most VHS AP courses require summer work. Financial support for fall and spring semester VHS courses is provided by the Shelton Board of Education.

***VIRTUAL HIGH SCHOOL #1685200**

(9th, 10th, 11th, & 12th grades)

VOLUNTEER COURSE FOR CREDIT

SCHOOL AND COMMUNITY #2016140

(9th, 10th, 11th, & 12th grades)

Volunteering allows students to work actively in our community by helping others. Students may volunteer after school, weekends, and during the summer at community organizations, elderly housing facilities, schools or programs working with children, libraries, and other nonprofit agencies. Excluded from the list of work sites are those that students are involved in through clubs offered at Shelton High School such as Habitat for Humanity. Participation in these groups is encouraged as part of the regular program of extracurricular activities. Students who

volunteer may not receive any monetary remuneration. Volunteer hours marked for Scout badges, court-ordered community service, etc. cannot be counted for School and Community. Students must turn in a contract signed by themselves and the supervisor responsible for monitoring their hours. This contract must be approved by the volunteer coordinator, Mrs. Riddle, in the Career Center, before volunteer work for credit can begin. Students must regularly hand in time sheets with hours verified to the volunteer coordinator. One credit will be awarded when a student completes 150 hours of volunteering. Seniors must complete all hours for credit by May of their senior year. Interested students should see their counselor or Mrs. Riddle in the Career Center. **The 150 hours of volunteering is in addition to the 40 hours (10 hours per year) that a student must complete as part of their graduation requirements. A student will be required to show documentation of all hours completed.**

STUDENT SUCCESS PLANS

The Student Success Plan (SSP) is an individualized plan that is student-driven and supports growth in three areas:

- Academic Development
- College/Career Development
- Social/Emotional/Physical Development

The SSP started in the 2012-2103 school year; the SSP begins in the 5th grade and continues through high school to provide every student the opportunity to set and monitor personal goals related to his/her own future planning.

Every student at Shelton High School will be assigned an SSP activity period. These activities will either be completed independently by the student, in advisory or with their school counselor. The purpose of these activities is to help students learn more about themselves, their strengths, and areas of interest. Students will document SSP work in an electronic portfolio in Naviance.

NAVIANCE – FAMILY CONNECTION

Shelton High School is pleased to introduce Family Connection – a comprehensive website that you can use to plan for college and a career. Family Connection is linked with Naviance, a service that we use in our office to track and analyze data about college and career plans, so it provides up-to-date information that is specific to our school.

Family Connection allows you to:

- **Get involved in the planning and advising process** – Build a resume, complete online surveys, and manage timelines and deadlines for making decisions about colleges and careers
- **Research colleges** – Compare GPA, standardized test scores, and other statistics to actual historical data from our school for students who have applied and been admitted in the past
- **Research careers** – Research hundreds of careers and career clusters, and take career assessments
- **Create plans for the future** – Create goals and to-dos, and complete tasks assigned to you by the school to better prepare yourself for your future college and career goals

Family Connection also lets us share information with you about upcoming meetings and events, local scholarship opportunities, and other resources for college and career information. You can also use the site to stay in communication with the counseling office.

Log in: www.naviance.com

GRADUATION REQUIREMENTS FOR THE CLASSES OF 2019 AND 2020

1. A total of 25.4 credits is required for graduation. Required credits are as follows:

English	4.0 credits
Mathematics	3.0 credits
Social Studies	3.0 credits
(including 1.0 in U.S. History I/AP U.S. History; and .5 in U.S. History II and .5 Civics or 1.0 in AP Government)	
Science	4.0 credits
(including at least 1.0 in General Science, 1.5 in Biology, plus an additional lab science course)	
Fine Arts or Career & Technical Education	1.0 credit
(Courses may be chosen from Art, Music, Career & Technical Education or by taking Acting I or Acting II)	
Physical Education	1.0 credit
Health Education	.5 credit
Electives	7.5 credits
Community Service	.4 credit
(including .1 credit for 10 hours of service each year)	
CAPSTONE	1.0 credit
Total for graduation	25.4 credits
2. Students who pass Algebra I in eighth grade at Shelton Intermediate School will be given high school credit.
3. Students who pass a World Languages course in eighth grade at Shelton Intermediate School will be given high school credit.
4. HCC Financial Accounting I and Principles of Managerial Accounting and Computer Science courses taught by the Math Department do not fulfill the mathematics graduation requirement.
5. Honors level students who have been allowed to take Biology in their freshman year must take 2 additional lab science courses to fulfill the four-credit requirement.
6. Students are required to complete 10 hours of community service per year, a total of 40 hours prior to graduation. Students will receive .1 credit for 10 hours of service each year. Students may not earn more than .1 credit per year for service. Students must submit a signed contract for themselves and their supervisor responsible for monitoring their hours. This contract must be approved by the Principal or his/her designee prior to beginning service hours.
7. The minimum course load per semester is 6.0 credits. Exceptions to this regulation must be approved by the Principal and student's Assistant Principal.
8. A student will earn his/her diploma and may participate in the graduation ceremony only if all academic requirements and obligations are met.

GRADUATION REQUIREMENTS FOR THE CLASS OF 2021

1. A total of 25.4 credits is required for graduation. Required credits are as follows:

English	4.0 credits
(including 1.0 in English I, 1.0 in English II, 1.0 in English III and 1 additional English credit)	
Mathematics	3.0 credits
Social Studies	3.0 credits
(1.0 in U.S. History I/AP U.S. History; and .5 in U.S. History II and .5 Civics or 1.0 in AP Government)	
Science	4.0 credits
(including at least 1.5 in Biology plus one additional lab science course and 1 additional credit)	
Fine Arts or Career & Technical Education	1.0 credit
(Courses may be chosen from Art, Music, Career & Technical Education or by taking Acting I or Acting II)	
Physical Education	1.0 credit
Health Education	.5 credit
Electives	7.5 credits
Community Service	.4 credit
(including .1 credit for 10 hours of service each year)	
CAPSTONE	1.0 credit
Total for graduation	25.4 credits
2. Students who pass Algebra I in eighth grade at Shelton Intermediate School will be given high school credit.
3. Students who pass a World Languages course in eighth grade at Shelton Intermediate School will be given high school credit.
4. HCC Financial Accounting I and Principles of Managerial Accounting and Computer Science courses taught by the Math Department do not fulfill the mathematics graduation requirement.
5. Students are required to complete 10 hours of community service per year, a total of 40 hours prior to graduation. Students will receive .1 credit for 10 hours of service each year. Students may not earn more than .1 credit per year for service. Students must submit a signed contract for themselves and their supervisor responsible for monitoring their hours. This contract must be approved by the Principal or his/her designee prior to beginning service hours.
6. The minimum course load per semester is 6.0 credits. Exceptions to this regulation must be approved by the Principal and student's Assistant Principal.
7. A student will earn his/her diploma and may participate in the graduation ceremony only if all academic requirements and obligations are met.

GRADUATION REQUIREMENTS FOR THE CLASS OF 2022

1. A total of 25.4 credits is required for graduation. Required credits are as follows:

<u>Humanities</u>	9.0 credits
English (including 1.0 in English I, 1.0 in English II, 1.0 in English III and 1 additional English credit)	
Social Studies (1.0 in U.S. History I/AP U.S. History; and .5 in U.S. History II and .5 Civics or 1.0 in AP Government)	
Fine Arts	
<u>STEM</u>	9.0 credits
Science (including at least two lab science courses and 1 additional credit)	
Technical Education	
Mathematics	
World Languages	1.0 credit
Physical Education/Wellness	1.0 credit
Health and Safety Education	1.0 credit
Electives	3.0 credits
Community Service (including .1 credit for 10 hours of service each year)	.4 credit
CAPSTONE	1.0 credit
Total for graduation	25.4 credits
2. Students who pass Algebra I in eighth grade at Shelton Intermediate School will be given high school credit.
3. Students who pass a World Languages course in eighth grade at Shelton Intermediate School will be given high school credit.
4. HCC Financial Accounting I, Accounting I and Computer Science courses do not fulfill the mathematics graduation requirement.
5. Students are required to complete 10 hours of community service per year, a total of 40 hours prior to graduation. Students will receive .1 credit for 10 hours of service each year. Students may not earn more than .1 credit per year for service. Students must submit a signed contract for themselves and their supervisor responsible for monitoring their hours. This contract must be approved by the Principal or his/her designee prior to beginning service hours.
6. The minimum course load per semester is 6.0 credits. Exceptions to this regulation must be approved by the Principal and student's Assistant Principal.
7. A student will earn his/her diploma and may participate in the graduation ceremony only if all academic requirements and obligations are met.

WEIGHTED AND UNWEIGHTED GRADE POINT VALUES

A student's weighted and unweighted grade point average will be calculated through the use of the following chart:

Classes of 2019, 2020, 2021, and 2022

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
AP	5.00	4.67	4.33	4.00	3.67	3.33	3.00	2.67	2.33	2.00	1.67
Honors	4.67	4.33	4.00	3.67	3.33	3.00	2.67	2.33	2.00	1.67	1.00
(Set as Base Value) College Prep	4.33	4.00	3.67	3.33	3.00	2.67	2.33	2.00	1.67	1.33	.67
Academic	4.00	3.67	3.33	3.00	2.67	2.33	2.00	1.67	1.33	1.00	.33

CLASS RANK

Class rank is determined by utilizing the number of quality points for each subject, which is assigned an academic level. This is computed by adding all the quality points earned and dividing by the number of courses assigned quality points. This is done for each school year. A student must complete a minimum of four concurrent semesters at Shelton High School to be determined in the top ten, valedictorian, or salutatorian.

PROMOTION REQUIREMENTS FOR THE CLASSES OF 2019, 2020, 2021, AND 2022

- For promotion to Grade 10 students must earn **4.6** credits through coursework. Students must pass **English I** and earn the required **.1 credit for community service**.
- For promotion to Grade 11 students must earn **11.2** credits through coursework. Students must pass **English II** and earn the required **.1 credit for community service**.
- For promotion to Grade 12 students must earn **17.3** credits through coursework. Students must pass **English III** and earn the required **.1 credit for community service**. In addition, students promoted to Grade 12 **must have fulfilled enough of the graduation requirements to allow the student to graduate in June**.

COLLEGE ADMISSION REQUIREMENTS

Admission requirements for colleges vary greatly so it is advisable for students to begin an early study of college catalogues in order to assure their having the required subjects for entrance to the college of their choice. Students are advised to take the most challenging courses that they can handle and consult with their school counselor when planning a high school course of study.

Minimum Course Requirements

<u>FRESHMAN</u>	<u>SOPHOMORE</u>	<u>JUNIOR</u>	<u>SENIOR</u>
English I	English II	English III	English IV
Modern World History	U.S. History I/AP U.S. History	U.S. History II/Civics	Elective
Science (Lab)	Science (Lab)	Science (Lab)	Elective
Math	Math	Math	Elective
Phys. Ed./Wellness	Phys. Ed./Wellness	Elective	Elective
Elective	Elective	Elective	Elective
Elective	Elective		

Recommended College Program

<u>FRESHMAN</u>	<u>SOPHOMORE</u>	<u>JUNIOR</u>	<u>SENIOR</u>
English I	English II	English III	English IV
Modern World History	U.S. History I/AP U.S. History	U.S. History II/Civics	Soc. Studies
Science (Biology I/Lab)	Science (Chem I/Lab)	Science (Physics I/Lab)	Science
Math (Algebra I or II)	Math (Geometry)	Math	Math
Language	Language	Elective	Elective
Elective	Elective	Elective	Elective
Phys. Ed./Wellness	Phys. Ed./Wellness		

NCAA ELIGIBILITY CENTER

Division I Academic Requirements

College-bound student-athletes will need to meet the following academic requirements to practice, receive athletic scholarships, and/or compete during their first year:

Core-Course Requirements are as follows:

English - 4 years

Math - 3 years

- Algebra I or higher

Natural/Physical Science - 2 years

- Including one year of lab, if offered

Social Science - 2 years

Additional - 1 year

- English, math, or natural physical science

Additional Courses - 4 years

- Any area previously listed, foreign language, or comparative religion/philosophy

Full Qualifier

- Complete 16 core courses
 - Ten of the 16 core courses must be completed before senior year of high school
 - Seven of the 10 core courses must be in English, math, or natural physical science
- Earn a core-course GPA of at least 2.300
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale
- Graduate high school

2018 Division II New Academic Requirements

College-bound student-athletes first enrolling at an NCAA Division II school on/after Aug. 1, 2018 need to meet new academic rules to practice, compete, and receive athletic scholarships during their first year.

Core-Course Requirements are as follows:

English - 3 Years

Math - 2 years

- Algebra I or higher

Natural/Physical Science - 2 years

- Including one year of lab, if offered

Social Science - 2 years

Additional - 1 year

- English, math, or natural/physical science

Additional Courses - 4 years

- Any area previously listed, foreign language, or comparative religion/philosophy

Full Qualifier

- Complete 16 core courses
- Earn a core-course GPA of at least 2.200
- Earn the ACT/SAT score matching your core-course GPA on the Division II full qualifier sliding scale
- Graduate high school

Please visit ncaa.org for additional information

HUMANITIES

ENGLISH COURSES

English is a four-credit requirement at Shelton High School. Students must successfully complete English I, II, III, and IV in succession as a requisite for graduation. Students in the Class of 2021 may take a combination of two English electives to fulfill their English requirement senior year. Students in the Class of 2022 must take 4 credits to fulfill the Humanities requirement for graduation. Under no circumstances will a student be allowed to take these courses concurrently within a single academic year. Pre-approved accelerated English courses taken during the summer may be acceptable for those students who do not successfully complete English I, II, III, or IV during the school year. Students are advised to consult with their school counselor prior to enrolling in such a course to ensure acceptance. Students may enroll in multiple English elective courses in a given year.

***ACTING I #1052240** (10th, 11th, & 12th grades)

This course in acting will include an in-depth study of and practice in the art of stage performance. Students will be introduced to acting fundamentals, including stage movement and voice projection. The course will begin with theatre games and improvisations and lead to the presentation of scripted monologues and scenes.

***ACTING II #1054240** (11th & 12th grades)

This course is an expansion of Acting I. Students will be faced with advanced situations for improvisation and also with advanced scripted scene work. By the end of the course, students will be expected to demonstrate a working knowledge of acting techniques and theories. **Prerequisite: successful completion of *Acting I**

ADVANCED PLACEMENT ENGLISH LANGUAGE & COMPOSITION #1003335 (11th grade)

This course prepares students for the AP English Language and Composition exam. Students will write in a variety of forms – narrative, exploratory, expository, and argumentative. The purpose of this course is to enable students to read complex texts with understanding and to write high-level prose that allows for effective communication with mature readers. Students in this class will also concentrate on an in-depth study of non-fiction and the art of rhetoric. This course is equivalent to a college composition course.

ADVANCED PLACEMENT ENGLISH LITERATURE & COMPOSITION #1005445 (12th grade)

This course prepares students for the AP English Literature and Composition exam. Students enrolled in this course will undertake an intensive study of representative works of recognized literary merit from world literature. Students will concentrate on the elements of structure, style, theme, figurative language, imagery, symbolism, and tone. Attention to textual detail and historical context will provide a foundation for interpretation. Summer reading is required.

***CLASSICAL MYTHOLOGY #1050240** (9th, 10th, 11th, & 12th grades)

This course focuses primarily on the Greek myths and their Roman counterparts and will give students a thorough background in the religion, society, and politics of ancient Greece. Students will also be introduced to and do research on the mythologies of other countries.

***CREATIVE WRITING I #1060340** (9th, 10th, 11th, & 12th grades)

The objectives of this course are to guide the student in writing creatively. Students will be encouraged to develop abilities and master the basics of creative writing while progressing individually in writing ability and in the desire to write.

***CREATIVE WRITING II #1061340** (10th, 11th, & 12th grades)

This course will provide students with a forum to further explore writing styles and genres through class readings and writing opportunities. Students will examine a variety of motifs while being encouraged to develop their individual writing styles. Each student will produce a portfolio for assessment. **Prerequisite: successful completion of *Creative Writing I**

***THE DETECTIVE STORY #1062340** (9th, 10th, 11th, & 12th grades)

Students will trace the detective story from the beginning with Poe's "The Murder in the Rue Morgue" up through

today's detective story writers, including James Patterson.

ENGLISH I #100111 H, C, A (9th grade)

The main objective of ninth-grade English is to introduce students to literature as an art form and to develop the ability to think abstractly and to evaluate critically. Literature-based and analytical writing and grammar instruction accompany each unit. Units will be covered through the use of an anthology and various novels, short stories, plays, poetry, and articles.

ENGLISH II #100222 H, C, A (10th grade)

The tenth grade English curriculum is designed to expand upon students' skills in reading and writing. Units will reinforce expository writing, thematic analysis, figurative language, and interdisciplinary connections. These lessons will be taught through the use of an anthology, novels, short stories, plays, poetry, and articles. Students are guided and encouraged to use language effectively both in speaking and in writing. Study of grammar and vocabulary will accompany each unit.

ENGLISH III #100333 H, C, A (11th grade)

The focus of the eleventh-grade curriculum is American literature. Emphasis is on the structure and subject matter of the American novel. Drama, poetry, short stories, essays, and articles will be studied. Reinforcement of grammar and SAT preparation may accompany each unit. Literary analyses and persuasive pieces are requirements.

ENGLISH IV #100444 H, C, A (12th grade)

The general objectives of the 12th grade program are to acquaint students with various types of literature, to develop critical and reasoning skills, and to cultivate a sense of chronological development in literary traditions. Each quarter is devoted to the study of various genres of world literature. A part of each quarter also is devoted to the study and practice of grammar and composition. Literary analysis and critical papers are requirements.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

#1030140, 1031140, 1032140, 1033140

(9th, 10th, 11th, & 12th grades)

This course is designed to assist those students who are identified as English learners and do not have full working comprehension of English. It is designed to aid the student in developing proficiency in listening, speaking, reading, and writing to function better in the mainstream of school academics. The program includes special guidance to fit each student's unique situation.

***FICTION AND FILM #1060330**

(10th, 11th, & 12th grades)

Students will compare and contrast the elements and techniques of both literary and cinematic form, as well as study the challenges of adapting a work of fiction for film. The course focuses on written as well as visual literacy, and students will develop critical criteria to judge the ultimate success of an artistic creation and its effect on the reader or viewer. Assignments include reading novels and short stories, writing in a variety of genres, and evaluating films inspired by those readings. **Independent reading is a major component of this class.**

***IMAGINARY WORLDS: SCI-FI, FANTASY, AND THE SUPERNATURAL #1060350** (10th, 11th, & 12th grades)

This course focuses on literature in the science-fiction and fantasy genres. Students will analyze universal themes in unconventional settings and discuss the ways in which authors present a social commentary through their fiction. Literature selections will include classic and contemporary works within the genres. **Independent reading is a major component of this class.**

***INTRODUCTION TO THEATRE #1056240**

(10th, 11th, & 12th grades)

This course is designed for students who have a strong interest in theatre. The student will explore the various aspects of theatre, including an historical perspective and the technical aspects of production. Students will read plays, design sets, and study costuming, lighting, special effects, and performance.

JOURNALISM I #1020340

(10th, 11th, & 12th grades)

This full-year journalism course is open to grade 10, 11, and 12 students who have an interest in any aspect of journalism including reporting, writing, layout, production, and photography. Students will get first-hand experience in all aspects of publishing and will gain valuable skills in graphics and communication that can transfer to other fields. Some additional work on the news publication and field trips outside of the classroom are part of this class.

JOURNALISM II #1022440

(11th & 12th grades)

This full-year course is designed only for students who have completed Journalism I. Journalism II students are the

editors of the school news publication and may be eligible for induction into the Quill and Scroll National Honor Society. **Prerequisite: successful completion of Journalism I**

JOURNALISM III #1020540 (12th grade)

This course is a career-oriented course for students who are experienced in journalism skills and ready to take on a leadership position. This course may include advanced students working in various media outlets. **Prerequisite: successful completion of Journalism II**

***PLAYWRITING #1058240** (10th, 11th, & 12th grades)

This half-year course is designed for students who have a strong interest in drama as a literary form and wish to do an in-depth study of drama. This is primarily a writing course. Students will write monologues, dialogues, scenes and one-act plays. They will also read and analyze the works of major traditional and modern playwrights.

***READING STRATEGIES #1066110** (9th, 10th, & 11th grades)

This course is designed for students who evidence the need for additional basic reading instruction. Such need may be determined by a variety of literacy assessments. Class size will be limited.

***SAT PREPARATION (VERBAL) #1070230** (10th, 11th, & 12th grades)

The main purpose of this course is to provide students with skills that will be beneficial to them in taking the SAT exam. There will be a strong emphasis on test-taking strategies. Extensive work in areas of critical reading, vocabulary, grammar, and writing will aid students in the high school and college classroom as well.

***SHAKESPEARE'S COMEDIES #1073240** (10th, 11th, & 12th grades)

This half-year literature elective will focus on the study of Shakespeare's comedies. Students who enjoy Shakespeare will explore his lighter side as they study his wit and humor. Shakespeare's life and times will be studied as well as the following plays: *All's Well That Ends Well*, *As You Like It*, *The Comedy of Errors*, *Two Gentlemen of Verona*, *The Tempest*, and *A Midsummer Night's Dream*.

***SPEECH & COMMUNICATION #1072240** (10th, 11th, & 12th grades)

This course is designed primarily to give the student instruction in the fundamentals of speech making so that the student may develop confidence and competency in communicating ideas to an audience. The course covers a variety of speeches, short presentations, group discussions, and debate. Students will be required to read textbook materials, research information, and make presentations.

***UCONN ENGLISH 1010 – Seminar in Academic Writing (4 UConn credits) #1051345** (11th & 12th grades)

This college course will include instruction in academic writing through interdisciplinary reading. Assignments emphasize interpretation, argumentation, and reflection. Revision of formal assignments and instruction on grammar, mechanics, and style also will be included. Conferences with instructor are required. **Prerequisite: UConn application**

***WORLD MYTHOLOGY #1050440** (9th, 10th, 11th, & 12th grades)

This elective will explore Norse, Celtic, and Chinese mythologies. The course will focus on creation, hero, and afterlife motifs and will relate the concepts to Western civilizations.

YEARBOOK JOURNALISM I #1024340 (11th & 12th grades)

This course will provide the student with a working knowledge of the skills necessary in compiling a yearbook. Students will learn concepts of yearbook journalism such as financial planning, advertising, theme development, layout and design, copywriting and photography. Students will apply their knowledge to the production of the school yearbook, *Argus*. Additional after-school work will also be expected. Students who elect this course must have a well-developed sense of responsibility, be able to work under pressure, and meet deadlines. Students enrolled in this course are required to sell advertisements by the deadline set by the instructor.

YEARBOOK JOURNALISM II #1024350 (12th grade)

This full-year course is designed for students who have successfully completed Yearbook Journalism I and are interested in staff leadership positions. This course is designed to expand on the design and graphic image skills developed in Yearbook Journalism I and provide an opportunity to apply these skills in a leadership role. Students enrolled in Yearbook Journalism II will be editors of the yearbook staff and be eligible for induction into the Quill and Scroll National Honor Society. Students enrolled in this course are required to sell advertisements by the deadline set by the instructor. **Prerequisite: successful completion of Yearbook Journalism I**

SOCIAL STUDIES COURSES

ADVANCED PLACEMENT EUROPEAN HISTORY #2004445 (10th, 11th, & 12th grades)

This Advanced Placement elective course is geared for those students who wish to pursue a college level social science course. Students will learn the basic chronology, concepts, and major historical facts and personalities, and historical analysis of trends from approximately 1450 (the High Renaissance) to the present.

ADVANCED PLACEMENT PSYCHOLOGY #2005445 (11th & 12th grades)

This full-year psychology course is geared for students who wish to pursue a college level psychology course. This course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to psychological facts, principles, and phenomena associated with each of the major subfields with psychology.

ADVANCED PLACEMENT UNITED STATES GOVERNMENT & POLITICS #2010345 (11th & 12th grades)

The AP United States Government and Politics course gives students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret United States government and politics and the analysis of specific examples. It requires familiarity with the various institutions, groups, beliefs, and ideas that constitute United States government and politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. This course will also fulfill the State of Connecticut Civics requirement.

ADVANCED PLACEMENT UNITED STATES HISTORY #2003335 (10th & 11th grades)

This Advanced Placement course is geared for those who wish to pursue a college level social science course in their junior year. The AP History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States History. Students will learn to assess historical materials, their relevance to given interpretive problems, reliability and importance, and to weigh the evidence and interpretations presented in historical scholarships. Students who pass the Advanced Placement examination in United States History may receive college credit and appropriate placement in their freshman year in college. This course may be taken in place of the regular required United States History I and United States History II courses.

ADVANCED PLACEMENT WORLD HISTORY #2001115 (9th grade)

This Advanced Placement course is geared for those students who wish to pursue a college-level social science course. Course content includes the investigation of five course themes and nineteen key concepts in six different chronological periods, from approximately 8000 B.C.E. to the present. Individual colleges may grant college credit depending on their acceptance of the scores on the AP exam.

***CIVICS #2076240** (11th & 12th grades)

The goal of this course is to prepare young Americans to understand and carry on the fundamentals of our American Republic. This half-year course focuses on the study of what it means to be a responsible, knowledgeable, participating citizen and blends the study of our nation's constitutional history with the structure of our government and its laws. Students will study how ideas about government change over time, and how these ideas apply to current issues impacting our society. The State of Connecticut has made this a required course for students.

***CONNECTICUT HISTORY #2076340** (10th, 11th, & 12th grades)

Connecticut has a rich history dating back thousands of years. This class will examine the events and people that have created and shaped the great state of Connecticut. In exploring the lives of men and women—rich and poor, enslaved and free, Native American and settler, Loyalist and Patriot, soldier and pacifist—students will experience the growth and development of Connecticut. Special interest will also be paid to local Shelton history.

***CULTURAL ANTHROPOLOGY #2051240** (9th, 10th, 11th, & 12th grades)

This half-year course focuses on the study of Anthropology. Anthropology is the only social science to study all of the world's people. The course will study past and present day culture. Students will also study large scale modern societies and their relevance to the world. Students will understand how we are all members of a worldwide human community.

***CURRENT WORLD EVENTS #2072340** (11th & 12th grades)
Do you know what is happening in the world today? In this course, you will study local, national, and international events and issues through the use of journals, magazines, newspapers, and television. You will learn how daily events affect your life.

***FORENSIC AND LEGAL PSYCHOLOGY #2075340** (10th, 11th, & 12th grades)
Using research in clinical, cognitive, developmental and social psychology, forensic and legal psychology shows how psychological science can enhance the gathering and presentation of evidence, improve legal decision-making, prevent crime, rehabilitate criminals and promote justice.

***GEOGRAPHY #2062240** (9th, 10th, 11th, & 12th grades)
The field of learning called geography seeks to describe how all the world's places are alike and how each is unique. The geographic study will include the people, the way they live, the work they do, the beliefs they hold and the way they organize their portion of the earth's surface. Included in the course will be the study of climates, landforms, and locations, which will afford the student the basic tools to "think geographically" about the world's problems.

***HISTORY THROUGH FILM: 20th CENTURY UNITED STATES HISTORY #2053340** (11th & 12th grades)
By combining the study of films with the text-based primary sources, this course offers the student a clear guidance in studying, interpreting, and understanding motion picture's significance as a primary source in investigating UNITED STATES History. It will also promote, through essay and documents, the student to analyze film as cultural artifacts within the context of actual past events.

***MODERN CULTURE THROUGH HIP HOP #2076440** (10th, 11th, & 12th grades)
The course will trace the roots of hip hop from its 1970's origins in the Bronx, New York, to its position worldwide. This course will focus on Hip Hop's historical progression, while providing students an opportunity to explore all aspects of history, society, and culture that are deeply embedded in the music. Students will investigate important films, audio, and readings designed to enhance their understanding of the culture and its importance. Although the lessons are rooted in Hip Hop, ultimately they are designed as departure points for further educational exploration. This course will provide information about United States History, politics, culture, and economic structure and the impact of these events and issues on society.

MODERN WORLD HISTORY #200222 H, C, A (9th grade)
Students will study those periods of history from the French Revolution to modern times, which include western and non-western history. This course is recommended as a preparation for the State of Connecticut's academic assessments.

***PSYCHOLOGY #2074340** (11th & 12th grades)
This course will help students explore such topics as the roles of the body and brain in human behavior, the process of consciousness, the causes of mental illness, human intelligence, personality, psychological testing, the roles of sleep and dreams, developmental psychology, and nature vs. nurture.

***SOCIOLOGY #2064340** (11th & 12th grades)
This course is offered so students may appreciate the social aspects of life today—society, human relations, groups, people's beliefs, values and rules, as well as ways of organizing families, educational systems, religion, parenting and marriage. Various social problems such as crime and delinquency will also be studied. After completing the course, students may acquire a new view of themselves and the world around them that will be helpful in making lifetime decisions.

***UCONN ECONOMICS 1201 – Principles of Microeconomics (3 UConn credits) #2069345** (11th & 12th grades)
This course covers how the invisible hand of the market functions through the economic decisions of firms and individuals. Course content includes how prices, wages and profits are determined, resources are allocated, and income is distributed. Topical subjects, such as, energy policy and health care are also covered. **Prerequisites:** UConn Economics 1202/UConn application

***UCONN ECONOMICS 1202 – Principles of Macroeconomics (3 UConn credits) #2007345** (11th & 12th grades)
This course covers the organization and function of the economic system as a total unit. Economic decisions, institutions, and policies that determine levels and rates of growth of production, employment and prices will be studied as well as government budget deficits and current interest rate policy. **Prerequisite:** UConn application

UNITED STATES HISTORY I #200311 H, C, A**(10th grade required)**

The American way of life has its roots far back in history. The material comforts we enjoy, the institutions which serve us so well, and the freedoms we cherish are products of many hands and many minds. This course is designed to guide the student in understanding our heritage and in preparing for the responsibilities of citizenship.

UNITED STATES HISTORY II #200321 H, C, A*(11th grade required)**

The American way of life has its roots far back in history. The material comforts we enjoy, the institutions which serve us so well, and the freedoms we cherish are products of many hands and many minds. This course is designed to guide the student in understanding our heritage and in preparing for the responsibilities of citizenship. The course will focus on events from 1940 to the present day. **Prerequisite: successful completion of United States History I**

YOU AND THE LAW #2058140*(11th & 12th grades)**

Maintaining our democracy is not an easy task. Through law education, individuals learn to be effective, law-abiding, active, participating citizens. Law-related education helps to develop young citizens who can sustain, preserve, and foster our free, democratic society. Some of the law-related topics covered include: crimes, death penalty, search and seizure, juvenile court system, and hate crimes.

FINE AND PERFORMING ARTS COURSES

ART

ADVANCED POTTERY #7054340*(10th, 11th, & 12th grades)**

This class expands students' knowledge and expertise in hand-built pottery as well as providing an introduction to the potter's wheel and clay extruder. Glazing and decorating techniques will also be explored. **Prerequisite: successful completion of *Pottery**

ADVANCED 2D ART TECHNIQUES #7030140*(11th & 12th grades)**

Advanced Art Techniques will build on the philosophy, theory, and technical skills presented in drawing and painting classes. Students will develop greater technical skills using a variety of drawing media and will continue development of painting techniques with an emphasis on more complex observational skill development and personal expression. This class will also help students create and refine college art portfolios for those who are interested in art school. **Prerequisite: successful completion of *Art Foundations**

ART APPRECIATION #7002140*(11th & 12th grades)**

This half-year course is designed for students who are interested in learning about different art periods, cultures and genres. Students will create works of art based upon the period of art history studied. This course will cover a wide variety of art history topics from ancient art through modern art movements. Students will create artworks using drawing, painting, and three-dimensional sculpture.

ART FOUNDATIONS #7001140*(9th & 10th grades)**

This half-year course focuses on developing the student's artistic skills as a means for creative self-expression and art appreciation. Students will explore a variety of media such as charcoal, tempera, and colored pencils. Projects will be based on the elements of art and principles of design.

*** CRAFTS #7055240****(10th, 11th, & 12th grades)**

This course will introduce students to the field of crafts. Students will examine art history and explore cultures from around the world while making crafts that are indicative of that culture. Students will use basic tools while learning the techniques of fiber art, basketmaking, papier mache, and others.

DESIGNER'S WORKSHOP #7074340*(11th & 12th grades)**

In a collaborative class between art and technology, students will acquire the basic skills of fashion illustration and presentation, textile surface design and ornamentation, and develop promotional skills to communicate information about product or ideas. A variety of art techniques as well as computer design programs will be explored.

DRAWING #7050240*(10th, 11th, & 12th grades)**

This course is designed for students who are interested in exploring a wide range of drawing techniques and materials. References include the human figure, studio environments, landscape, still life, and fantasy illustrations.

Prerequisite: successful completion of *Art Foundations

FINE ART PHOTOGRAPHY #7060250 (9th, 10th, 11th, & 12th grades)

This full-year course in photography will focus on the use and functions of the camera and photo editing. Student photos will be based upon the elements and principles of art to create interesting and unique compositions. To move students forward in the ever-changing world of art and technology, the focus will be on creating digital pieces using Photoshop. Outdoor shots and indoor studio shoots will take place. Students are involved in the photographic process from conceptualization to the final print. It is recommended that students have a digital camera that they can use during class and outside of the classroom.

***HCC CERAMIC HANDBUILDING E163 #7055451 H** (10th, 11th, & 12th grades)

This course is an examination of the physical properties of clay with an emphasis on the development of personal imagery. Students will work with traditional pottery techniques beginning with the coil and slab and extending these experiences to include combinations of media. Successful completion of this course allows students to earn 3 credits at HCC which may be transferable to other universities.

***HCC DRAWING I E111 #7051351 H** (10th, 11th, & 12th grades)

This course is an examination of the fundamentals of drawing. Students will work on the skillful use of line, value, distribution, composition, and perspective systems. Drawing as a visual tool for visual thinking will also be introduced. Successful completion of this course allows students to earn 3 credits at HCC which may be transferable to other universities.

***PAINTING I #7052240** (10th, 11th, & 12th grades)

This half-year course is an introduction to the fundamental techniques of painting. Students will explore composition, color mixing, color combinations, depth perspective, painting methods and styles. Subject content will include interpretive and representational forms and themes. **Prerequisite: successful completion of *Art Foundations**

***PAINTING II #7052250** (10th, 11th, & 12th grades)

This half-year class will allow students to further develop their compositional skill, painting techniques, and individual style. A variety of media and surfaces will be explored. Students will be introduced to relevant contemporary and historical artists and art styles and will learn to analyze their own works as well as the works of others. **Prerequisite: successful completion of *Painting I**

***POTTERY #7054240** (10th, 11th, & 12th grades)

This course enables students to make hand-built clay forms that are useful and creative. Basic and advanced techniques such as coil, slab, and press molding are taught. Emphasis is placed on design of forms, originality, decorative techniques, and craftsmanship.

*** STUDIO ART #7058240** (9th, 10th, 11th, & 12th grades)

This course will further develop and expand on students' knowledge of art techniques and the art critique process. Students will create projects in two--dimensional design, drawing, painting, and printmaking. Emphasis will be on original imagery and self-expression. References to art history and contemporary art will be included within the framework of a studio environment. **Prerequisite: successful completion of *Art Foundations**

The following Art elective will be offered during the 2019-2020 school year:

***DESIGNING SPACES #7002340** (11th & 12th grades)

Within this professional design-oriented program the student will learn to create landscape plans, design interiors, and build architectural models. Historical reference will be studied.

MUSIC

CHORALE #7512140 (9th, 10th, & 11th grades)

This ensemble is designed to help students become independent musicians. Music of many styles is studied and performed at evening concerts at school and at other venues as well as during the school day. Focus for this course includes learning the fundamentals of singing, intonation, sight-singing and presentation. This class prepares students for future membership in the Concert Choir. Additional rehearsals and concerts are required.

CONCERT & MARCHING BAND #7501140**(9th, 10th, 11th, & 12th grades)**

Students are given the opportunity to share in the band program. Members of this group learn the techniques of ensemble playing and sharing in musical and social experiences. Responsibilities to the group and working together as a unit are important obligations of the individual players. Top quality performances are constantly emphasized. Additional rehearsals, after school, evening or weekends, are required during marching season, which occurs from September through Thanksgiving.

CONCERT CHOIR #7507140**(9th, 10th, 11th, & 12th grades)**

This advanced auditioned group studies a variety of choral literature representing all musical periods, including classical, popular, jazz, and American musical theatre. Voice production, balance, blend, dynamics, phrasing, and rhythm are specifically emphasized. This group presents evening concerts in four-part harmony for the public. Students interested may audition for Western Regional and All-State Music Festivals. Additional rehearsals and concerts are required. *Audition is required for entrance.*

FUNDAMENTALS OF MUSIC #7553140*(9th, 10th, 11th, & 12th grades)**

General music literacy and ear training are taught through written, aural, and performance exercises in rhythm and pitch. Because this class is directed towards both instrumentalists (including guitarists previously unused to staff notation) and vocalists, quality in vocal production is not assessed, but all students must participate fully in oral pitch-matching and basic sight-singing.

HISTORY OF JAZZ AND ROCK #7552140*(9th, 10th, 11th, & 12th grades)**

This course surveys the history of Jazz and Rock music with particular emphasis on the musical exchanges between African-Americans and European Americans. Listening skills and the ability to communicate musical understanding using appropriate vocabulary are developed through a series of musical examples. Music reading is not required.

INTRODUCTION TO PIANO KEYBOARDING #7554140*(9th, 10th, 11th, & 12th grades)**

This half-year course will give students the opportunity to learn to play the piano keyboard as well as basic music fundamentals. This class is for students with little or no previous piano experience. Others should enroll in Piano Keyboarding II. This class is offered first semester.

MUSIC APPRECIATION I #7550140*(9th, 10th, 11th, & 12th grades)**

This course explores how music reflects and affects culture, society, and individuals. The topic is "Light and Dark in Music and Culture." Musical selections range from early times to contemporary, Gregorian Chant to AC/DC. Listening skills and the ability to communicate musical understanding using appropriate vocabulary are developed through a series of musical examples. Reading music is not required.

MUSIC APPRECIATION II #7551140*(9th, 10th, 11th, & 12th grades)**

This course explores further how music reflects and affects culture, society, and individuals. The topic is "Humor and Comedy in Music and Culture". Musical selections range from early times to contemporary, satiric medieval songs to American Musical Comedy. Listening skills and the ability to communicate understanding using appropriate vocabulary are developed through a series of musical examples. Music reading is not required. Due to the slightly more complex musical repertory examined, prior enrollment in Music Appreciation I is recommended, though not required.

MUSIC THEORY I #7504240**(9th, 10th, 11th, & 12th grades)**

This course reviews in detail the language of music through the elements of rhythm, pitch, intervals, notation and modality. Students will acquire knowledge of sight-reading and aural dictation. Introduction and construction of four-part harmony including modulation, analysis of classical and contemporary music is covered. **Reading music is a requirement**, which may be met through prior participation in the Chorale, Concert Choir, Band, Piano I and II, or Fundamentals of Music classes.

MUSIC THEORY II #7504250*(10th, 11th, & 12th grades)**

This course is a study of chromatic harmony and analysis. It is an advanced study of compositions relating to their form and harmonic structure. It will also include melody writing and arranging. **Prerequisite: successful completion of Music Theory I**

PIANO KEYBOARDING II #7564140*(9th, 10th, 11th, & 12th grades)**

This class is for students with previous piano experience wishing to work on more challenging music. Students who have completed the Level I course have the opportunity to continue building their skills. This class is offered second

semester. **Prerequisite: successful completion of *Introduction to Piano Keyboarding**

***PIANO KEYBOARDING III #7565240** (10th, 11th, & 12th grades)
Students who have completed *Piano Keyboarding II can enhance their fluency and technical skills in this third level of piano instruction. **Prerequisite: successful completion of *Piano Keyboarding II**

STRING ENSEMBLE #7552670 (9th, 10th, 11th, & 12th grades)
This ensemble is designed to allow students with previous experience playing violin, viola, cello, or bass to share in the string program. Members of this group will learn the techniques of ensemble playing. This class will prepare students for future membership in the Concert Orchestra.

UConn Fundamentals of Music 1011 with Music Theory I (3 UConn credits) #7504255
(11th & 12th grades)

Music Theory I is taken in conjunction with this UConn Fundamentals of Music/Ear Training I (1011) class. This course reviews in detail the language of music through the elements of rhythm, pitch, intervals, notation, and modality. Students will acquire knowledge of sight-reading and aural dictation. Introduction and construction of four-part harmony including modulation and analysis of classical and contemporary music are covered. Students must have permission of instructor. **Prerequisite: UConn application**

***UConn Music Appreciation 1001 (3 UConn credits) #7552345** (11th & 12th grades)

This college course will cover how music reflects and affects culture, society, and individuals. Musical selections range from medieval through contemporary. Listening skills and appropriate vocabulary are developed and stressed through a series of musical examples. This course may be taken in conjunction with either *Music Appreciation I or *Music Appreciation II. **Prerequisite: UConn application**

STEM

SCIENCE COURSES

Classes of 2019 and 2020: Honors-level students taking Biology I/Lab as freshmen must take Chemistry I/Lab, Physics I/Lab, Anatomy and Physiology/Lab, Forensic Science/Lab, and/or any other AP science course to meet their three-year science requirement. Honors, College Prep, and Academic Studies students should take General Science as freshmen, Biology as sophomores, and either Chemistry, Physics, or Anatomy and Physiology/Lab, Forensic Science/Lab, or any other AP science course to meet their three-year requirement. Electives do not fulfill the science requirement for graduation. Students taking any laboratory science class will meet eight periods one week and seven periods the following week.

Class of 2021: Students are required to take a minimum of four credits in science to graduate. This includes two lab science courses and any other combination to meet graduation expectations. Electives may be used to complete science credits. All grade 9 students must take either Biology I/Lab or Advanced Placement Biology/Lab. Sophomores will take another lab science (Chemistry, Physics, Forensic Science/Lab, Anatomy and Physiology/Lab, AP Biology, AP Environmental Science, AP Physics I). As a junior or senior, students may select another lab science course to meet the minimum graduation requirement of four credits. Students taking any laboratory science class will meet eight periods one week and seven periods the following week.

Class of 2022: Students are required to take 9 credits in STEM. This includes any lab science and elective combination. It is recommended that grade 9 students take Biology/Lab, Environmental Science/Lab, AP Biology/Lab, or AP Physics 1 Algebra-Based/Lab. Sophomores are encouraged to take another lab science class (may include the ones listed for grade 9 as well as Chemistry/Lab, Physics/Lab, Anatomy and Physiology/Lab, Forensic Science/Lab, AP Environmental Science/Lab, AP Physics 2 Algebra-Based/Lab), and as junior or senior, students may select another lab science course or electives to fulfill their graduation requirement. Students taking any laboratory science class will meet eight periods one week and seven periods the following week.

ADVANCED PLACEMENT BIOLOGY #4006445 & LAB #4006445L (9th, 10th, 11th, & 12th grades)

Advanced Placement Biology is designed to be the equivalent of a college level introductory biology course for biology majors. The two main goals of AP Biology are to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process. Primary emphasis will be placed on developing and understanding important biological concepts and their practical application in everyday life. Topics include biochemistry, organisms and populations, biotechnology, cell energy transformations, genetics and evolution. Thirteen labs mandated by the College Board will be completed throughout the year. Additional labs, outside readings and interactive web site activities will be utilized by instructor to supplement units when necessary.

ADVANCED PLACEMENT CHEMISTRY #4016345 & LAB #4016345L (10th, 11th, & 12th grades)

The AP Chemistry course provides students with a college-level foundation to support future advanced studies in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. It is strongly recommended that students have completed a first-year high school chemistry course before enrollment in an AP Chemistry class. In addition, the recommended mathematics prerequisite for an AP Chemistry class is the successful completion of a second-year algebra course.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE #4000345 & LAB #4000345L (10th, 11th, & 12th grades)

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. **Prerequisites: successful completion of two years of a lab science and one year of Algebra is recommended but not required**

ADVANCED PLACEMENT PHYSICS 1 ALGEBRA-BASED #4010355 & LAB #4010355L (9th, 10th, 11th, & 12th grades)

This is an introductory, algebra-based physics course, promoting conceptual physics reasoning and understanding, specifically for engineering, premed, or other advanced science pathways with a focus on: kinematics; Newton's laws of motion; torque; rotational motion and angular momentum; gravitational and circular motion; work, energy, and power; linear momentum; oscillations; mechanical waves and sound; and an introduction to electric circuits. This course is designed to meet the requirements for a first semester, college physics course. This course is a prerequisite for AP Physics 2 Algebra-Based. **Prerequisite: concurrent enrollment in Algebra II or higher math course**

ADVANCED PLACEMENT PHYSICS 2 ALGEBRA-BASED #4010365 & LAB #4010365L (10th, 11th, & 12th grades)

This is an introductory, algebra-based physics course, promoting conceptual physics reasoning and understanding, with a focus on: fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics, electric circuits with capacitor; magnetic fields; electromagnetism; physical and geometric optics; and topics in modern physics. This course is designed to meet the requirement for a first semester, college physics course. **Prerequisite: successful completion of AP Physics I Algebra-Based/Lab**

***AGRICULTURAL SYSTEMS FROM GLOBAL TO LOCAL #4063250 (9th, 10th, 11th, & 12th grades)**

This course provides students with an overview of agricultural systems, especially food production, both globally and locally. Topics will include a comparative analysis of global agricultural systems, and an in-depth analysis of local food production with an emphasis on current trends in small-scale agriculture in Connecticut. In addition, we will discuss permaculture and organic farming, composting, forestry, and agribusiness marketing. Students will apply their knowledge and newly developed skills outside working on the SHS gardens.

ANATOMY AND PHYSIOLOGY #405454 & LAB #405454L H, C, A (10th, 11th & 12th grades)

This course will include a year-long program of intense human anatomy and physiology studies. The areas covered will include medical terminology, basic chemistry, cell and tissue structure, and the eleven systems of the human body (integumentary, skeletal, muscular, nervous, endocrine, circulatory, lymphatic/immune, digestive, respiratory, urinary, and reproductive). Laboratory work will be required and involve dissections. The content will be most helpful to students interested in a variety of medical fields including medicine, dentistry, nursing, athletic training, and physical therapy. **Prerequisite: successful completion of Biology I/Lab**

APPLIED RESEARCH #4055640**(9th, 10th, 11th, & 12th grades)**

This course is intended for freshman, sophomore, junior, and senior students who have demonstrated interest in pursuing research in biological, physical, medical, and/or engineering sciences. Students will conduct a year-long or multi-year independent science experimental research project under the mentorship of the instructor and field scientist(s). Students are expected to present the results of their research at local, state, or national fairs, symposia, or competitions. The course is designed to provide students with the opportunity to interact with practicing scientists; participate in a significant research experience; select, develop, and conduct an independent research project; and develop the skills of reporting and presenting research results.

BIOLOGY I #400322 & LAB #400322L H, C, A**(9th & 10th grades)**

This course will cover the fundamental concepts of cell chemistry, biotechnology, genetics, evolution, biodiversity, viruses, bacteria, and ecosystems. Since one of the most important aspects to teaching any science is the process by which knowledge in the field is gained, the interplay of experimentation and reasoning during laboratory situations makes laboratory activities an invaluable tool in advancing the knowledge of students.

BIOLOGY II #4005340**(11th & 12th grades)**

Biology II is designed to be a continuation of Biology I/Lab. The course will take a closer look at areas briefly touched upon in Biology I/Lab. Major topics include a detailed study of plants, environmental science, ecosystems, and ecological relationships of man with his planet, the vertebrate classes (fish, amphibians, reptiles, birds, and mammals). **Prerequisite: successful completion of Biology I/Lab**

CHEMISTRY I #401434 & LAB #401434L H, C**(10th, 11th, & 12th grades)**

The Chemistry lab is intended to provide (a) experience in using common chemical equipment and techniques, and (b) an opportunity to apply some of the principles learned in the classroom. Emphasis is placed on making careful observation and quantitative measurements under controlled experimental conditions. Concepts included in the course are fundamental to a career in science and nursing as well as teaching. Students who know that they are going on to college and are planning to pursue careers in mathematics or science are strongly urged to take Chemistry in their junior year and Physics in their senior year. **Prerequisite: successful completion of Algebra I**

CONCEPTUAL CHEMISTRY #4015343 & LAB #4015343L A**(10th, 11th, & 12th grades)**

Conceptual Chemistry is designed to offer students a practical approach to learning about matter and its changes. Some mathematical equations will still be studied, but emphasis will be on the concepts of chemistry rather than the mathematics. Laboratory activities will be an invaluable tool in advancing the knowledge of students.

CONCEPTUAL PHYSICS I #4009243 & LAB #4009243L A**(10th, 11th, & 12th grades)**

Conceptual Physics is designed to offer the student the physical concepts of nature with less math than a traditional physics course. Mathematics and problem solving are still an integral part of the course, but the emphasis will be on the concepts rather than the mathematics. **Prerequisite: successful completion of Algebra I**

DYNAMIC EARTH #4064350*(9th, 10th, 11th, & 12th grades)**

Dynamic Earth will expose students to modern scientific techniques used to locate and measure earthquake activity and resulting tsunamis, various types of volcanic behavior, and the states of the atmosphere which interact with the oceans to produce hurricanes, tornadoes, and floods. Use of internet resources, video footage of real and simulated events along with student-designed models and lab investigations will provide varied experience of the subject. A culminating project will address ways to mitigate the damages before and after a natural hazard or disaster occurs.

ENGINEERING THROUGH NATURE #4065350*(9th, 10th, 11th, & 12th grades)**

Engineering Through Nature will reinforce core concepts in biology, chemistry, and physics and apply science and engineering practices to solve human technological challenges. Students will look to nature and its patterns and explain how these patterns help species survive. Through the study of biomes and organisms' adaptations for survival, energy transformations, natural resources, cycles in nature, and biotechnology, students will imitate nature's design to solve humankind's technological challenges. At the end of the semester, each student will participate in a culminating project challenge by designing, building, and testing an idea inspired by nature.

ENVIRONMENTAL SCIENCE #4060340*(9th, 10th, 11th, & 12th grades)**

Environmental Science is a course designed to give the student an understanding of environmental science concepts and processes enabling them to cast an informed vote on local or national environmental issues, to learn proper measuring techniques used to evaluate environmental problems, and to collect and analyze data from various sources including Curtiss Brook and the Meadow Street Reservoir. Topics such as greenhouse effect, global warming, acid rain, populations, energy resources, waste management, and land use are investigated. This course is for students

who are concerned about environmental problems and their possible solutions on a local to global level.

ENVIRONMENTAL SCIENCE #406664 & LAB #406640L H, C, A (9th, 10th, 11th, & 12th grades)

This course will explore the issues that make up the study of our environment. Through a detailed examination of current issues, topics such as history of the Earth, Earth's systems, weather and climate, human sustainability, matter and energy in organisms and ecosystems, interdependent relationships in ecosystems, and natural selection and evolution will be explored.

***FORENSIC SCIENCE #4064240** (10th, 11th, & 12th grades)

This class is designed for those students interested in learning about real-world applications of science. It will involve several areas of science including General Science, Biology, Chemistry and Physics. Students will learn common forensic science techniques used in crime investigations such as fingerprinting, blood typing and DNA analysis. Students will also examine and analyze past court cases. This course is ideal for those students interested in a career in law, forensic science, or law enforcement. **Prerequisite: successful completion of previous high school science course**

FORENSIC SCIENCE #4055540 & LAB #4055540L (10th, 11th, & 12th grades)

This course is designed to meet the needs of students wishing to experience a more in-depth investigation in the field of forensic science. With many hands-on activities and labs, the student will be exposed to real-world practical application of the concepts, information, and techniques utilized in criminal forensic investigations. This course is ideal for those students interested in a career in forensic science, law, or law enforcement. **Prerequisites: successful completion of Biology I/Lab**

FUNDAMENTALS OF HEALTH SCIENCE #4054360 & LAB #4054360L (11th & 12th grades)

Fundamentals in Health Science will explore all five health career pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research and Development. Students will learn the basics required for all healthcare employees, including professionalism, medical ethics, medical terminology, measurement of vital signs, cultural awareness, infection control, and standard precautions. Students will demonstrate their learning in patient care simulations throughout the class, and through oral presentations based on the Connecticut Standards for Medical Careers Education. Classroom instruction will be rotated with a job shadowing experience at various local health occupation facilities. This course will also allow students to be more marketable in the search for a career by allowing them to achieve certain certifications such as First Aid and CPR, Youth Mental Health First Aid, Disaster Preparedness, and Career Safe OSHA certification, which will aid them in their resume building process and health science skills. Membership in HOSA (Health Occupation Students of America) for future health professionals will be encouraged. **Prerequisite: successful completion of *Human Body or Anatomy and Physiology/Lab or concurrent enrollment**

***GENETICS #4050340** (10th, 11th, & 12th grades)

This course will provide students with an understanding of the importance genes play in our health. In addition, students will develop an appreciation for gene therapies and technologies that have the potential to greatly improve quality of life. Topics to be covered in Genetics include the importance genes play in our intelligence, personalities, behavior, physical health, immunity, and evolution. The genetics of cancer and heart disease will be explored in depth. Technologies involving cloning, stem cells, gene therapy, forensics, and genetic counseling will be expanded upon. Labs, projects, case studies, internet assignments, problem-solving, ethical role-playing, and reading guides will be used to reinforce these concepts. **Prerequisites: successful completion of Algebra I and Biology I/Lab**

***HERPETOLOGY #4066340** (9th, 10th, 11th, & 12th grades)

If you are interested in reptiles and amphibians, this is the course for you. This course includes a hands-on approach to the study of reptiles and amphibians through the use of group activities, labs, audio-visual aids and internet resources. Students will learn to identify the unique characteristics of each class of these animals as well as their evolutionary path, common ancestors, lifestyles and reproductive mechanisms.

***HUMAN BODY #4063260** (10th, 11th, & 12th grades)

This course is designed to meet the needs of students who wish to learn the essentials of human anatomy and physiology. It provides a comprehensive summary for students of the biological sciences, nursing, and occupational therapy. It should be most helpful to all students interested in dentistry, medicine, medical technology, hygiene, and physical therapy. Human Body is designed to study the structure and function of the human organism.

***INTRODUCTION TO AVIATION #4065250** (9th, 10th, 11th, & 12th grades)

Introduction to Aviation may be the first step to a new and exciting career in aviation, whether as a pilot, control

tower operator, airline crew member, or air-terminal employee. This course is designed to expose students to the following: history of aviation, principles of flight, airport operations and radio communications, navigation, and reading sectional maps and plotting trips, as well as a minimum of 10 hours on VFR simulator. Field trips to local airports to observe daily operations of control tower and management of air traffic and ground operations will be a part of this course.

***MARINE SCIENCE #4058340**

(10th, 11th & 12th grades)

Explore the underwater world and learn about various marine habitats including the rocky shoreline, salt marshes, Long Island Sound and the deep sea. Students will study the composition of the oceans; learn to recognize its characteristics and the many different organisms that live in this environment. **Prerequisite: successful completion of Biology I/Lab**

PHYSICS I #400824 & LAB #400824L H, C

(10th, 11th, & 12th grades)

Physics is concerned with the relation between matter and energy. Areas of lecture and lab concentration are: motion and force, wave mechanics, optics and light, electricity, electromagnetism, atomic and nuclear physics. Lectures and lab activities are complemented by demonstrations and problem solving exercises. Student groups conduct experiments that provide experience in collecting, recording, organizing, and analyzing data for the purpose of drawing conclusions with regard to stated objectives.

***SPACE FRONTIERS #4064340**

(11th & 12th grades)

This course will introduce students to the leading edge of scientific ideas in such diverse areas as Bioengineering, Nanotechnology, Space Exploration, and Computers, and will project trends for the future. Students will research current periodicals, science books, and the Internet. A strong background in the sciences and a desire to learn and discuss science are essential.

UB GENERAL CHEMISTRY I CHEM103 (4 UB credits) #4027455 & LAB #4027455L (11th & 12th grades)

UB Chemistry is a study of basic chemical principles and their applications, designed for science and engineering majors. The course includes theoretical and experimental studies of such topics as composition and structure of matter, stoichiometry, chemical bonding, gases, atomic and molecular structure, and periodic trends. **Prerequisite: successful completion of Algebra I**

UB GENERAL PHYSICS I PHYS201 (4 UB credits) #4022455 & LAB #4022455L (11th & 12th grades)

Would you like to go to college with 4 physics credits already on your transcript? UB General Physics I may be the course for you. This non-calculus based course will present an introduction to classical mechanics, heat and thermodynamics. Topics may include linear motion, vectors and two-dimensional motion, kinematics, Newton's laws of motion, work and energy, and temperature and heat. Students will apply their knowledge in the lab setting performing experiments, interpreting data, and problem-solving. The use of educational technologies and communicating quantitative information will be mastered by students. **Prerequisite: successful completion of Algebra II**

UCONN PHYSICS 1201Q/1202Q (8 UConn credits) #4021345

(11th & 12th grades)

This course is designed to provide a foundation for more advanced courses in physics. The topics covered include classical dynamics, rigid-body motion, harmonic motion, waves, fluids, thermodynamics, electricity, magnetism, and optics. Laboratory work is a key component of the course and offers fundamental training in precise measurements. Students should have a strong mathematical background to ensure successful comprehension and completion of this course. Students are required to take the final exam provided by the UConn Department of Physics. **Prerequisites: successful completion of Precalculus and Chemistry I/Lab is recommended/UConn application**

TECHNOLOGY EDUCATION COURSES

We are living in a time of unprecedented change brought about by technology. Students are introduced to the world of modern technology using investigative, design/construct and problem solving approaches. Technology courses offer students experiences which encourage individual creativity, exploration, work habits, and skill development. These courses engage students in opportunities to investigate career paths, develop problem solving abilities and acquire technical knowledge of materials, tools and processes. The table below demonstrates that Technology Education offers students a roadmap to plan and prepare for multiple career pathways. Whether it is a STEM related field such as Engineering and Robotics, to Video Production and Video Game Design, to Manufacturing and

Construction, our program will enable students to be college, career and innovation ready. All Technology Education students will participate in a Financial Reality Fair.

Career Pathways, Recommended Scope, and Sequence

Career Pathway	Courses	Sequence
Architecture & Construction	*Architecture *CAD *Construction	Grade 9: Engineering & STEM Careers *CAD Grade 10:* Construction Grade 12:*Architecture
Arts, Audio/Video Technology and Communications	*Designer’s Workshop *Digital Art Using Photoshop Gael News *Graphic Arts *Video and Photography Video Production ***** *3D Animation I *3D Animation II *Video Game Design I *Video Game Design II *Video Game Design III	Grade 9: *Digital Art Using Photoshop * Graphic Arts Grade 10: *Video & Photography Grade 11: Video Production *Designer’s Workshop Grade 12: Gael News ***** Grades 9/10:*3D Animation I *Video Game Design I * Video Game Design II Grades 11/12: *3D Animation II *Video Game Design III
Manufacturing	*Manufacturing *Mechanical 3D CAD	Grade 9: Engineering & STEM Car. *Mechanical 3D CAD *CAD Grade 10: *Manufacturing Grades 11/12: *HCC Manufacturing I Grades 11/12: *HCC Manufacturing II
STEM	Engineering & STEM Careers *CAD *UB Engineering Graphics UB Engineering *Robotics UConn Engineering	Grade 9: Engineering & STEM Careers *CAD Grade 10: *Robotics Grade 11: *UB Engineering Graphics UB Engineering Grade 12: UConn Engineering

***ARCHITECTURE #5565240** **(10th, 11th, & 12th grades)**
Explore various residential and commercial architectural designs and construction using current principles. Using Auto Cad® software, students will design a structure, produce a detailed set of plans and build a 3D model using proper construction principles.

***CAD #5559920** **(9th, 10th, 11th, & 12th grades)**
CAD (Computer Aided Design), two-dimensional drafting, 3D modeling, and renderings are examined in this dynamic course. Topics include drawing techniques and grasping blueprint reading skills useful in STEM professions such as structural engineering, mechanical engineering, electrical engineering and architectural design.

***CONSTRUCTION #5553210** **(9th, 10th, 11th, & 12th grades)**
Students will explore various design principles and material properties to gain an understanding of what gives a structure its strength. Utilizing hand tools, machinery, CAD and test equipment, structures such as bridges, towers, and commercial or residential buildings will be designed, constructed, and tested.

***DESIGNER’S WORKSHOP #7074340** **(11th & 12th grades)**
Bringing art, design, and technology together, Designer’s Workshop students acquire the skills of fashion illustration and presentation, textile surface design and ornamentation, and develop promotional skills to communicate information about product or ideas.

DIGITAL ART USING PHOTOSHOP #5554250*(10th, 11th, & 12th grades)**

Want to learn how the professionals use Adobe Photoshop but have little to no editing knowledge? Students will explore the world of Adobe Photoshop through retouching, colorization, poster design, gifs, animations, and more.

ENGINEERING & STEM CAREERS #5550020**(9th, 10th, 11th, & 12th grades)**

This class will introduce major fields within engineering as well as the skills needed to begin a successful, high-paying career. Through the use of CAD software, students will produce detailed drawings and plans for various design projects with an emphasis on problem-solving. Some of the machines that will be used include 3D printers and CNC routers. Fields being explored include aerospace, biomedical, electrical, manufacturing, and robotics in our new STEM lab. This course is recommended for 9th graders who are interested in all technology career pathways.

GAEL NEWS #5558760**(10th, 11th, & 12th grades)**

This course is a continuation of Video Production. Students will work on the daily morning announcements; create advertisements for clubs, organizations and businesses in the Shelton community. Students will learn how to run a multicaster, anchor the news, adjust audio on the fly, and write creative scripts that will bring Gael Pride into homeroom each day. This is a great opportunity to build a portfolio for college and the film industry. **Prerequisite: successful completion of Video Production**

GRAPHIC ARTS #5556140*(9th, 10th, 11th, & 12th grades)**

Enjoy marketing but want more creative input? See how the world of design comes alive through the creative process by building a digital portfolio which will include your own logos, an advertisement, websites, and design using Adobe Illustrator and Dreamweaver.

+*HCC MANUFACTURING I #5554121 H**(11th & 12th grades)**

This double-period course includes the study of orthographic projection and topics pertaining to lines and their uses, auxiliary views, sectional views, basic and special dimensioning, dimensioning for holes, chamfers, angle, tapers, keyways diameters and radii, geometric tolerancing and dimensioning. Students will also learn the use of cut off saws, drill presses, vertical band saws, drilling tools, countersinking, reaming and counterboring. This course will also embed Manufacturing Math into the curriculum. Course includes MFG E124 Blueprint Reading and MFG E151 Manufacturing Machinery-Drill Press and Saw/Benchwork. Students who successfully complete this course will earn credits that may be transferable to any college or university.

+*HCC MANUFACTURING II #5554201 H**(11th & 12th grades)**

This double-period course is designed to develop dimensional development ability for inspectors, technicians, quality control personnel, and others who require this skill in their manufacturing environment that emphasizes open inspection methods. Students will also learn how to use manufacturing machinery including milling, lathe and grinding. The study of milling includes vertical and horizontal milling machines, cutting tools and holders, setups, spindles, and arbors and work holding methods. The study of lathe includes identification of major components, tool holders and tool holding, cutting tools, operating the controls, facing and center drilling. The study of grinding includes the selection and identification of grinding wheels, truing, dressing and balancing wheels, grinding fluids, using the horizontal spindle reciprocating table surface grinder, using the cylindrical grinder, and using the tool and cutter grinder. Course includes MFG E120 Metrology, MFG Introduction to Manufacturing/Machinery, MFG E152 Grinding, MFG E154 Lathe I, and MFG E155 Milling I. Students who successfully complete this course will earn credits that may be transferable to any college or university. **Prerequisite: +*HCC Manufacturing I**

MANUFACTURING #5553100*(9th, 10th, 11th, & 12th grades)**

Students will be given real life design problems and specifications. The class will be expected to work in a team situation to brainstorm solutions, design, prototype and mass produce products based on a set of design parameters. Students are expected to demonstrate sound design ideas/abilities.

MECHANICAL 3D CAD #5558240*(9th, 10th, 11th, & 12th grades)**

This half year course will allow students to study the main technical systems of Robotics. The primary focus will be on the physical, mechanical, pneumatic, and electrical systems and how they connect with manufacturing robots. Students will apply robotic theory by constructing and testing several types of robotic machines. Students will be taught safety procedures, design techniques, and an approach to problem solving. Students will also have the opportunity to work directly with the FIRST Robotics Team through application, design, and prototyping.

ROBOTICS #5570140*(10th, 11th, & 12th grades)**

This half-year course will allow students to study the main technical systems of Robotics. Primary focus will be on the physical, mechanical, pneumatic, and electrical systems and how they connect with industrial manufacturing

robots. Students will be given an opportunity to apply robotic theory by constructing and testing several types of robotic machines. Students will be taught safety procedures, design techniques, and an approach to problem solving. Students also will have the opportunity to work directly with the FIRST Robotics Team through application, design, and prototyping.

***3D ANIMATION I #5554320** (9th, 10th, 11th, & 12th grades)

Creative flair meets technical skills in 3D Animation I. Get exposed to different methods of animating motion and the foundation of animating 3D objects. Students will create animations that blend different techniques as needed and apply to models and semi-automated methods for generating motion through various procedural techniques. Computer animation is suitable for learners interested in 3D modeling and rendering.

***3D ANIMATION II #5553250** (9th, 10th, 11th, & 12th grades)

A continuation of *3D Animation I, students will dive deeper into modeling, texturing, lighting, and simple animation tools, as well as rendering. Three-dimensional modeling and animation enhance basic animation skills. Topics include computer graphic theories and methods, understanding and use of 3D software interface and basic project production methods. **Prerequisite: successful completion of *3D Animation I**

UB ENGINEERING ENG111 (3 UB credits) #5556055 (11th & 12th grades)

This is an introductory course that helps students understand how to program microcontrollers with different sensors and actuators. This course is designed around an open source microcontroller, namely the Arduino. **Prerequisite: successful completion of Engineering & STEM Careers**

UB ENGINEERING GRAPHICS MEEG112 (3 UB credits) #5556505 (10th, 11th, & 12th grades)

This course provides an introduction to engineering graphics and visualization including engineering drawing and 3-D solid modeling with a computer aided design (CAD) package. Topics include the design process, multiview projection and sectioning, dimensioning, tolerancing, and working drawings. **Prerequisite: successful completion of *CAD**

UCONN ENGINEERING 2110 (3 UConn credits) #5500005 (11th & 12th grades)

The function of this course is twofold. First, it aims to teach the fundamental concepts and techniques of engineering mechanics (statics and dynamics). Second, it aims to show the implementation of these methods in engineering design. Building on advanced mathematical skills, basic concepts of statics and dynamics are introduced, practiced, and applied to simple engineering problems. Students will obtain modeling knowledge, tools, and experience appropriate for a first-year engineering course, providing the foundation for higher-level engineering courses. **Prerequisites: successful completion of Precalculus and successful completion of or concurrent enrollment in Calculus/UConn application**

***VIDEO AND PHOTOGRAPHY #5554140** (9th, 10th, 11th, & 12th grades)

Ever wonder why some photographs come out better than others or just want to master some film editing skills? Over the course of the semester students can take their social media images and videos to the next level, using Adobe Photoshop, script writing, film editing and more.

***VIDEO GAME DESIGN I #5556320** (9th, 10th, 11th, & 12th grades)

Love playing video games but want to know more? Develop games from scratch, design through exploration, paper and digital prototyping, problem-solving, and user testing. Explore game and design concepts while gaining knowledge of video game design through models and computer software. GGWP! (Good Game Well Played).

***VIDEO GAME DESIGN II #5556330** (9th, 10th, 11th, & 12th grades)

This course will teach students what is required to create quality games that people want to play. Instruction is balanced between the necessary, important technical skills and the art of the craft. In addition to the technical instruction, students enrolled in this course must place significant focus on literacy and storytelling to create compelling and engrossing scenarios. **Prerequisite: successful completion of *Video Game Design I**

***VIDEO GAME DESIGN III #5556340** (10th, 11th, & 12th grades)

As a continuum of previous SHS video game design courses, this course will provide an introduction to C+ programming and 3D game development, covering everything needed to take a game from concept to completion. With a wide range of topics, the course will provide opportunities for students to discover passions towards technology in ways that resonate with their interests and strengthen student career pathways. **Prerequisite: successful completion of *Video Game Design II**

VIDEO PRODUCTION #5506130**(9th, 10th, 11th, & 12th grades)**

Lights, camera, action! Over the course of the year students will learn to master Adobe Premiere Pro and the ins and outs of video production. Whether interested in editing, broadcasting, foley, film theory or creative writing this is the class for you! Explore the production stages while creating videos such as movie trailers, public service announcements, school advertisements and more for a personalized digital portfolio.

The following Technology Education courses will be offered during the 2019-2020 school year:

+*HCC MANUFACTURING III #5554301 H**(12th grade)**

This double-period course introduces students to Computer Numeric Control topics including Cartesian coordinates, safe use of CNC equipment, set up and operation of a two-axis CNC lathe and a three-axis CNC machining center, programming and runoff of parts. This course also embeds CMM coordinate measurement and various CNC and manual projects into the curriculum. Course includes MFG E156 Manufacturing Machinery-CNC I. Students who successfully complete this course will earn credits that may be transferable to any college or university.

Prerequisite: **+*HCC Manufacturing II**

+*HCC MANUFACTURING IV #5554401 H**(12th grade)**

This double-period course provides students an introduction to the techniques of generating graphic images with computers using AutoCad and Solidworks software. Topics include the use of Computer Aided Drafting (CAD) for geometric construction, computer technology, hardware descriptions and requirements, file manipulation and management, two-dimensional and three-dimensional geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies, orthographic projection, and pictorial sketching. This course also embeds career awareness, CNC and manual projects that allow students to demonstrate their cumulative development of skill sets. Course includes CAD E110-Introduction to CAD. Students who successfully complete this course will earn credits that may be transferable to any college or university. Students who complete this course will/may earn a Connecticut Career Certificate and/or Licensure in Manufacturing. **Prerequisite:** **+*HCC Manufacturing III**

MATHEMATICS COURSES (including Computer Science)

Students who have successfully completed Algebra I in 8th grade should follow the sequence of Algebra II in 9th grade, Geometry in 10th grade, and Precalculus in 11th grade. Students may select Probability and Statistics, Calculus, AP Statistics, AP Calculus AB, UConn Calculus, or *SAT Preparation (Math) following Precalculus.

Students who have not taken Algebra I in 8th grade should follow the sequence of Algebra I in 9th grade, Algebra II in 10th grade, and Geometry in 11th grade. Students may select Probability and Statistics, Precalculus, AP Statistics, AP Calculus AB, UConn Calculus, or *SAT Preparation (Math) in 12th grade.

Students who require reinforcement of basic skills and need help grasping the basic concepts of Algebra should take the sequence of Integrated Math in 9th grade, Algebra I in 10th grade, and Algebra II in 11th grade. Algebraic Topics for Seniors, Math with Business Applications, or Applied Math may be selected as an elective in 12th grade.

It is recommended students follow the sequence of Algebra I, Algebra II, and Geometry.

Calculator Use: All of the mathematics courses at Shelton High School incorporate the use of scientific and graphing calculators. The TI-83+ or 84+ graphing calculators are used extensively in Algebra I, Algebra II, Algebraic Topics for Seniors, Trigonometry, Precalculus, SAT Preparation, Statistics, and Calculus. Students are encouraged to purchase their own calculators for use in class and at home.

ADVANCED PLACEMENT CALCULUS AB #3012445**(10th, 11th, & 12th grades)**

This course is primarily concerned with developing the student's understanding of the mathematics of change and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus with concepts, results and problems being expressed geometrically, numerically, analytically, and verbally. The TI 83+ or 84+ graphing calculator is required as part of the AP exam, and ownership is highly encouraged.

Prerequisite: **successful completion of Precalculus**

ADVANCED PLACEMENT CALCULUS BC #3022445**(11th & 12th grades)**

AP Calculus BC is roughly equivalent to both first and second semester college calculus courses. It extends the content learned in AB to different types of equations (polar, parametric, vector-valued) and new topics (such as Euler's method, integration by parts, partial fraction decomposition, and improper integrals), and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. The TI83+ or 84+ graphing calculator is required as part of the AP exam. **Prerequisite: successful completion of AP Calculus AB or Precalculus**

ADVANCED PLACEMENT COMPUTER SCIENCE #3210345**(10th, 11th, & 12th grades)**

This is a college level computer science course with major emphasis on programming methodology, algorithms, and data structures. Applications are used to develop awareness of the need for particular algorithms and data structures, as well as to provide topics for programming assignments. The JAVA programming language will be the vehicle for implementing computer based solutions to particular programs. The course content is prescribed by the current College Entrance Examination Board's Advanced Placement Course Description for Advanced Placement Computer Science. Students who enroll in this course should plan on additional computer time outside of class. **Prerequisite: successful completion of Programming I**

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES #3211445 (9th, 10th, 11th, & 12th grades)

AP Computer Science Principles introduces the foundations of computer science with a focus on how computing powers the world. Along with the fundamentals of computing, students will learn to analyze data, create technology that has a practical impact, and gain a broader understanding of how computer science impacts people and society. In addition, students will explore the fundamentals of computing, including problem-solving, working with data, understanding the internet, cybersecurity, and programming. **Prerequisite: successful completion of Algebra I**

ADVANCED PLACEMENT STATISTICS #3011345**(10th, 11th, & 12th grades)**

The purpose of the Advanced Placement course in Statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, experimental design, anticipating patterns, and statistical inference. The TI 83+ or 84+ graphing calculator is required as part of the AP exam, and ownership is highly encouraged. **Prerequisite: successful completion of Algebra II**

ALGEBRA I #300314 H, C, A**(9th & 10th grades)**

In this course students will engage in the formal study of algebraic concepts with a focus on problem solving, real-world applications, modeling, and the appropriate use of technology. Course content includes the study of real numbers, variables, equations, inequalities, linear and quadratic functions and their graphs, systems of equations, polynomials, and data analysis. A graphing calculator is highly recommended for this course.

ALGEBRA II #300524 H, C, A**(9th, 10th, 11th, & 12th grades)**

This course is a further study of topics from Algebra I with a focus on problem solving, real-world applications, modeling, and the appropriate use of technology. Course content includes the following: quadratic, polynomial, and exponential functions; polynomials, powers, and roots; and the complex number system. Logarithmic and rational functions are addressed. Current methods of teaching mathematics indicate that ownership of a graphing calculator is highly recommended for this course. **Prerequisite: successful completion of Algebra I**

ALGEBRAIC TOPICS FOR SENIORS #3006440**(12th grade)**

This course is designed to better prepare students in the area of algebraic understanding before moving on to an undergraduate program. It will focus on problem solving, real-world applications, modeling, and the appropriate use of technology while reinforcing skills learned in Algebra I and II. Course content will include an in-depth look at equations and inequalities, systems of equations and inequalities, functions, data analysis, measurement, personal finance, basic trigonometry, and SAT test-taking strategies. Current methods of teaching mathematics indicate that ownership of a graphing calculator is highly recommended for this course. *Students who have taken Precalculus or Trigonometry with SAT Preparation are not eligible for this course.* **Prerequisite: successful completion of Algebra II**

APPLIED MATH #3008442 C**(11th & 12th grades)**

This course is designed to better prepare college-bound students for the SAT by reinforcing prior Algebra I, Algebra

II, and Geometry knowledge with a focus on critical thinking and problem-solving. Test-taking strategies and the scoring process of the SAT will also be addressed. Other topics in this course include, but are not limited to, probability, statistics, sets, logic, personal finance, and consumer math.

CALCULUS #3010340

(11th & 12th grades)

This course begins with a review of some pre-calculus topics and then moves to a study of introductory calculus. Students study elementary functions, limits, differential and integral calculus and its applications. **Prerequisite: successful completion of Precalculus**

GEOMETRY #300414 H, C, A

(9th, 10th, 11th, & 12th grades)

In this course students will engage in the process of deductive and inductive reasoning while exploring in depth the characteristics and relationships of geometric shapes and structures. Students will develop their spatial visualization and problem solving skills through real-world applications, the use of a variety of geometric tools, and appropriate technology. Topics stressed include properties of planar figures, congruent and similar figures, area, perimeter, volume, and properties and measurements of solid figures. Current methods of teaching mathematics indicate that ownership of a graphing calculator is highly recommended for this course. **Prerequisite: successful completion of Algebra I**

INTEGRATED MATH #3003243 A

(9th grade)

This course is designed to prepare students for Algebra I. Integrated Mathematics topics include recognizing and developing patterns using tables, graphs, and equations. Mathematical modeling will be used as one of the methods for approaching the solution to problems. Students will explore operations on algebraic expressions and apply mathematical properties to algebraic equations. Students will problem-solve using equations, graphs, and tables, and investigate linear relationships, including comparing and contrasting options and decision making, using algebraic models. Reinforcement of topics from two-dimensional geometry is integrated into this curriculum. This includes applications from the areas of area and perimeter, the Pythagorean Theorem and its applications, as well as geometric proportion. Finally, introductory instruction in the area of mathematical probability is provided to reinforce use of fractions and numerical modeling.

***MATH STRATEGIES #3061440**

(9th, 10th, 11th, & 12th grades)

This course is designed for students who present the need for additional basic mathematic instruction. Such need may be determined by performance on the PSAT, SAT, and/or NWEA.

MATH WITH BUSINESS APPLICATIONS #3018244

(11th & 12th grades)

This course is intended to provide students with the skills to maintain their personal finances related to income, taxes, banking, investing and insurance through the study of relevant problems from everyday life. The mathematics of credit cards, car and home ownership, and travel will also be covered.

PRECALCULUS #300834 H, C

(11th & 12th grades)

In this course, students will extend topics introduced in Algebra II and learn to manipulate and apply more advanced functions and algorithms. This course provides a mathematically sound foundation for students intending to take calculus. Graphing utility and/or apps will be used extensively in this class. This course content includes in-depth study of rational, exponential, logarithmic, and trigonometric functions. The ownership of a graphing calculator is highly recommended for this course. **Prerequisite: successful completion of Geometry or concurrent enrollment**

PROBABILITY AND STATISTICS #3013340

(11th & 12th grades)

This course is a mathematical study pertaining to the collection, analysis, interpretation, explanation, and presentation of data. Probability theory will be studied in conjunction with statistics to draw conclusions about the likelihood of potential events. Emphasis will be on critical thinking and real-life applications using real data. The statistical methods and approaches used will focus on areas such as life and health sciences, industry, business, economics, engineering, agriculture, politics, and education. A graphing calculator is highly recommended for this course. **Prerequisite: successful completion of Algebra II**

PROGRAMMING I #3206140

(9th, 10th, 11th, & 12th grades)

This course is the initial computer programming course in JAVA, the computer language designated for testing by the College Board as a preparation for taking the Advanced Placement Computer Science course the following year. Emphasis will be on standard programming, logic, problem solving and algorithms, with the individual student developing, coding, testing, and debugging programs as well as developing algorithms to solve problems. Students who elect this course should have a strong foundation in mathematics. Additional programming topics such as sorting, searching, arrays, and matrices will be studied. A final programming project is required. **Prerequisite:**

successful completion of Algebra I

***SAT PREPARATION (MATH) #3050340** (10th, 11th, & 12th grades)

The primary aim of this course is to provide preparation for the mathematics section of the SAT exam. The focus is on a review of topics covered in Algebra I, Algebra II, and Geometry with opportunities for students to take practice exams. Test-taking strategies and the scoring process of the test will be addressed. Also included are topics that will provide students with a better understanding of the fundamental ideas seen in a college mathematics program.

Prerequisite: concurrently enrolled in Algebra II or Geometry

***SPORTS AND STATISTICS #3013440** (9th & 10th grades)

Sports and Statistics will investigate the use of statistics in professional sports. Students will learn how current statistics are calculated for professional sports and how these statistics impact game strategy. Students will be given the opportunity to collect data and evaluate it mathematically. Computer applications, including Microsoft Excel, will be used to execute real-world analysis. Topics may include: the intentional walk in baseball, the 2-point conversion, the onside kick in the NFL, the impact of playing a home game, the accuracy of point spreads, and more.

***TRIGONOMETRY WITH SAT PREPARATION #3006240** (9th, 10th, 11th, & 12th grades)

The focus is on the relationships between sides and angles of triangles. Students will study relations, functions, graphs, trigonometry, polar coordinates, complex numbers, limits, and derivatives and will analyze and graph mathematical functions. There is an emphasis on verification of trigonometric identities using all of the basic trigonometric identities. The course will provide preparation for the mathematics section of the SAT exam. *Students who have taken Precalculus are not eligible for this course.* **Prerequisite: successful completion of or concurrently enrolled in Geometry**

UB CALCULUS I (4 UB credits) #3033555 (11th & 12th grades)

This course is the equivalent of University of Bridgeport Math 110 Calculus 1 and Analytic Geometry. Topics covered include limits, derivatives and their application, antiderivatives, the fundamental theorem of calculus, and applications of integration. Students will be introduced to Derive symbolic manipulation software.

UConn CALCULUS 1131Q/1132Q (8 UConn credits) #3010355 (11th & 12th grades)

This course is designed to provide students with the fundamentals of both differential and integral Calculus. Students will take part in the study of the theory of Calculus and its application to the real world while using appropriate technology. Topics covered include limits, continuity, differentiation, antidifferentiation, definite integrals, transcendental functions, formal integration, polar coordinates, infinite sequences and series, vector algebra, and geometry. This course is recommended for students pursuing further study in the fields of mathematics, science, business, engineering or other highly technical fields at the college level. Current methods of teaching mathematics indicate that ownership of a graphing calculator is highly recommended for this course. **Prerequisites: successful completion of Precalculus/UConn application**

***UConn DISCRETE MATHEMATICS 1030Q (3 UConn credits) #3010305** (11th & 12th grades)

Under the University of Connecticut ECE Program, three college credits may be earned for satisfactory completion of this course. It is equivalent to Math 1030Q at UConn. This is a practical mathematics course for the college-bound student. It includes a study of problem-solving, simultaneous linear equations, counting and probability, graph theory, deductive reasoning, the axiomatic method, and finite geometries and number systems. There are applications to business and economics. **Prerequisites: successful completion of Algebra II/UConn application**

CAREER AND TECHNICAL EDUCATION COURSES

BUSINESS AND FINANCE EDUCATION

Business and Finance courses engage students with a rigorous framework to manage their personal and professional lives. These courses challenge learners to be innovative by developing creative thinking skills. Students apply business knowledge and technical skills with authentic tasks requiring creativity, collaboration, critical thinking, communication, analyzing, evaluating and creating. This enables students to become responsible citizens who are capable of making astute economic decisions.

Students are empowered to become knowledgeable and ethical decision makers in their roles as consumers, employees and citizens. They are exposed to finance, investments, the economic principles of an increasingly international marketplace, and the process by which businesses operate. Business and Finance courses prepare students to be college, career and innovation ready by engaging all students in a comprehensive experience. All Business and Finance students will participate in a Financial Reality Fair.

Those thinking of a business major in college are encouraged to sample this field while in high school. Students successfully completing HCC Marketing and/or HCC Financial Accounting I will earn 3 college credits that may be transferable to any college or university.

Career Pathways, Recommended Scope, and Sequence

Career Pathway	Courses	Sequence
Business Management	*Gael's Mean Business *Business Management *Business Law *Entrepreneurship *Global Business Studies	Grade 9: *Gael's Mean Business *Global Business Studies Grade 10: *Entrepreneurship Grade 11: *Business Law Grade 12: *Business Management
Accounting & Finance	*Accounting I Advanced Accounting II *Economics HCC Financial Accounting I H (College Credit) *Investing and the Stock Market *Money Management *UConn Economics 1000 - Essentials of Economics (College Credit)	Grade 9: *Gael's Mean Business *Accounting I Grade 10: *Economics *Money Management Grade 11: *Investing & Stock Mkt. HCC Accounting I Grade 12: Advanced Accounting II UConn Economics
Information Technology	*Computer Applications I *Computer Applications II	Grade 9: *Gael's Mean Business Grade 9-12: *Computer Apps I *Computer Apps II
Marketing	Marketing I HCC Marketing H (College Credit) *Marketing Style *Sports and Entertainment Marketing **Cooperative Work Experience (2 Credits)	Grade 9: *Gael's Mean Business *Marketing Style *Sports Marketing Grade 10: Marketing I Grade 11: HCC Marketing Grade 12: **Cooperative Work Exp.

***ACCOUNTING I #6005430**

(9th, 10th, 11th, & 12th grades)

Students will analyze the tremendous value of accounting in communicating company performance and the various stakeholders that draw on this financial information. Examine the exciting and paramount role of public accounting firms in protecting these stakeholders. An emphasis will be put on accounting concepts, the accounting equation, and the mechanics of debits, credits and financial statements.

ADVANCED ACCOUNTING II #6005540**(11th & 12th grades)**

In the fiercely competitive world of business there is no margin for error and it all comes down to the numbers. For those that enjoy an analytical challenge, come see the power of data in driving decisions and affecting company change. Learn to synthesize financial data, create and analyze corporate budgets, and build financial forecasts and ratios, all which serve as powerful business tools for company management. **Prerequisite: successful completion of HCC Financial Accounting I H**

BUSINESS LAW #6054830*(10th, 11th, & 12th grades)**

How can a company file for bankruptcy and continue to exist? Why is copying a company's logo, without permission, considered stealing? Explore the exciting and dynamic world of Business Law. Students will examine how laws affect them personally and professionally. Legal terms, concepts, and principles are explained and court cases from the Wharton School of Business are studied, while engaging in various mock trials. Topics that are covered include the history of law, our legal system, contracts, sales, real estate, and torts.

BUSINESS MANAGEMENT #6053340*(10th, 11th, & 12th grades)**

Come explore how companies are pushing the limits of conventional management practices to motivate, empower, and maximize their human capital. Explore the demands and challenges facing management in this fiercely competitive world of business. Students will discover their leadership skills by simulating business management functions through a virtual reality platform.

COMPUTER APPLICATIONS I #6066240*(9th, 10th, 11th, & 12th grades)**

This course provides an overview of Google Apps for business including Google Docs, Google Sheets, Google Forms, Google Sites and Google Drive. Students will also learn how to use the Microsoft Office Suite with an emphasis on Word and Excel. Students will create an ePortfolio that consists of artifacts from completed projects along with self-reflections to demonstrate growth as a learner. Most colleges and business related jobs require students and employees to be proficient in the applications covered in this course.

COMPUTER APPLICATIONS II #6068240*(9th, 10th, 11th, & 12th grades)**

This course emphasizes further exploration of Google Apps for business including Google Docs, Google Sheets, Google Forms, Google Sites and Google Drive. Students will also explore Microsoft Access and PowerPoint. Upon completion of the course, students will have gained knowledge and experience working with database and presentation software applications, which can benefit them in their personal, academic, and business environments.

****COOPERATIVE WORK EXPERIENCE INTERNSHIP #6030440 (2 credits)****(12th grade)**

This course is for students who are interested in bolstering their employability after high school. Students will investigate professional careers in a field of their choice. In addition to maintaining a weekly journal and participating in a school-to-career class, students will spend at least six hours a week at a paid job site, observing and working with experts in their chosen field. The internship will take place after school hours. Students must abide by the terms and conditions of the Cooperative Work Experience contract.

ECONOMICS #6064360*(10th, 11th & 12th grades)**

In this course students will engage in fundamental Macro and Micro principles. Students will apply personal experiences to contemporary economic issues. Topics of study include supply and demand, labor, the role of government, trade, monetary and fiscal policy. This course will help students understand the interworking of big business and financial institutions through dynamic simulations and hands on experiences. Guest speakers and field trips will be scheduled to enhance student learning. This is an excellent class for anyone interested in business, politics or preparing to take UConn economics courses.

ENTREPRENEURSHIP #6054140*(9th, 10th, 11th, & 12th grades)**

In this half-year course, students will experience, through a project-based learning atmosphere, the process of owning and operating a business. Throughout the course students will analyze the essential components of business planning and foster entrepreneurial skills for lifelong success. Entrepreneurship integrates the functional areas of business including accounting, finance, marketing, management as well as the legalities involved in business ownership. By course end students will have a complete business plan, E-presence, and business concepts in a real-world Shark Tank scenario!

GAELS MEAN BUSINESS #6004110*(9th, 10th, 11th, & 12th grades)**

Students will explore a variety of topics including finance, sales, accounting, operations, law, human resources, the underlying job opportunities and the necessary skills required in these roles in order to streamline a career pathway.

Students will also study business economic systems, forms of organizational structure, business ownership, planning and control. Using companies as a backdrop, students will analyze industries and their current trends to further assist in developing a career pathway. This course is highly recommended for all 9th graders.

***GLOBAL BUSINESS STUDIES #6058350** (9th, 10th, 11th, & 12th grades)

Come on a "virtual journey" across the globe exploring the many diverse countries, cultures and business practices. Dive into the dynamic and multi-faceted world of global business, using multinational companies as our backdrop for exploration and discussion. Examine the various business considerations that drive these companies to expand internationally and the compelling opportunities and complex challenges inherent in such expansion. Students will research/analyze various countries and global companies in a project based atmosphere.

HCC FINANCIAL ACCOUNTING I #6004241 H (10th, 11th, & 12th grades)

This college-level course is designed, in cooperation with Housatonic Community College, for students interested in acquiring accounting competency skills equal to those expected in a college financial accounting course. Students will engage in a study of the accounting process as it relates to the recording, measurement, and communication of the business entity's financial data and is recommended for all students pursuing a career in business and/or Accounting. *Students successfully completing this course earn 3 college credits that may be transferable to any college or university.*

HCC MARKETING #6004341 H (10th, 11th, & 12th grades)

Have you ever considered how an idea can evolve into a multimillion dollar business venture? Come join us as we enter into the incredibly dynamic and fast-paced world of marketing. Explore the multi-faceted role of marketing in the fiercely competitive world of business today. See how companies voraciously compete to "break through the clutter" to captivate customers and build brand equity. Study the role of technology and social media in marketing. Analyze companies that have dominant positions in their respective markets and the marketing and business strategies they employed to gain this dominance. This course aligns to the Housatonic Community College curriculum and culminates in a company research project. *Students successfully completing this course may earn 3 college credits that may be transferable to any college or university.*

***INVESTING AND THE STOCK MARKET #6051140** (9th, 10th, 11th, & 12th grades)

Students will be given the opportunity to explore various vehicles for investing, including stocks, bonds, and mutual funds. Students will learn the fundamentals of these investment options and will explore associated risks and rewards of investing. This course will explore the stock market and publicly traded companies and their stock performance. Students will participate in a stock market investing simulation where they will be given the opportunity to select and track a stock portfolio over a period of time.

MARKETING I (SCHOOL STORE/DECA) #6021240 (10th, 11th, & 12th grades)

Marketing is all around you! From social media feeds, to word of mouth promotions, we are all marketed to on a daily basis. In this yearlong journey, students will make an exciting introduction to the world of marketing and how it is needed for both personal and business success. Marketing I prepares students who are interested in employment or in further study of careers dealing with business, management, merchandising, and marketing. Students will execute digital on-campus marketing campaigns as well as experience hands on learning in our new school store "Gael Goods." Students will have the opportunity to join DECA (Distributive Education Club of America).

***MARKETING STYLE #6023140** (9th & 10th grades)

Marketing Style is designed for students interested in the field of Fashion Marketing; the retailing area that specializes in the buying, displaying, promoting, and selling of fashion-related goods and services. Careers in fashion marketing, selling, case studies, fashion promotion plans, and displays are examined, while students create original presentations designed to market fashions to the class. Guest speakers, along with optional involvement in DECA's annual Fashion Show as well as the development of fashion products for our campus school store Gael Goods, allow the student to apply case study based learning to practical, hands-on applications. **Prerequisite: successful completion of *Gaels Mean Business or concurrent enrollment**

***MONEY MANAGEMENT #6064420** (10th, 11th, & 12th grades)

The average Class of 2016 graduate has \$37,172 in student loan debt. This course examines the financial planning, management and investment needs of individuals and households using a virtual simulation environment. Students will become experts in financial literacy pertaining to personal budgeting, paying for college, credit cards, credit score, banking, loans, homeownership, insurance and investing. Upon successful completion of the course, students will be able to prepare a personal financial plan, budget and control income and expenses, economically and wisely purchase major expense items such as a house and a car, purchase needed insurance thoughtfully and purposefully

and begin a program for retirement and investments so that personal financial goals can be reached.

***SPORTS AND ENTERTAINMENT MARKETING #6024140 (9th, 10th, 11th, & 12th grades)**

Come explore the power that renowned athletes and entertainers have in building commanding brand equity and in influencing consumers. Study the incredibly dynamic and fast-paced world of marketing and the various strategies employed by sports and entertainment companies in their quest for market dominance. Explore the exciting and ever-changing role of sports agents and the respective challenges they face in this role. Discussion of movies, music, pop culture and theme parks across the globe will play a large part of this course. **Prerequisite: successful completion of *Gaels Mean Business or concurrent enrollment**

***UCONN ECONOMICS 1000—Essentials of Economics (3 UConn credits) #2067345 (11th & 12th grades)**

Economic concepts to be taught include opportunity costs, demand and supply, incentives, comparative advantage, inflation and employment policies, balance of international payments, and economic growth. This course will help students prepare for further UConn economics courses while earning college credit. **Prerequisite: UConn application**

FAMILY AND CONSUMER SCIENCES

All students are strongly encouraged to enroll in the courses offered in Family and Consumer Sciences. It is the belief that success in the future is tied to learning in the present and that the basic skills of everyday living must accompany the basic skills of general education in order for students to live well-rounded and personally responsible lives. It is the aim of the Family and Consumer Sciences to develop those skills, attitudes, and values that must be achieved in order to attain a useful and rewarding life. Students who are college bound, seeking vocational skills, or who wish to develop skills for personal growth will find a wide variety of courses to meet their needs and fulfill graduation requirements. All Family and Consumer Science students will participate in a Financial Reality Fair.

Career Pathways, Recommended Scope, and Sequence

Career Pathway	Course	Sequence
Hospitality & Tourism	*Baking and Pastry Arts *Culinary Arts I *Culinary Arts II *Foods and Nutrition I *Food and Nutrition II *Regional and Ethnic Cuisine	Grade 9: *Foods and Nutrition I *Foods and Nutrition II Grade 10: *Culinary Arts I *Culinary Arts II Grade 11: *Baking and Pastry Arts *Regional and Ethnic Cuisine

***BAKING AND PASTRY ARTS #5055240 (10th, 11th, & 12th grades)**

This course is designed to give the student a hands-on experience in quantity baking and pastry arts principles and production. Emphasis will be placed on the mastery of marketable skills for entry-level positions in the baking industry. The course covers an introduction to occupational baking skills, to include the selection, purchase, and preparation of a wide variety of baked goods and specialty desserts. The course also builds on sanitation and safety skills learned in *Foods and Nutrition I and *Culinary Arts I. *Baking and Pastry Arts introduces the student to the “front-of-the-bakeshop” operations, which includes practice in basic customer service, packaging techniques, and marketing of products. Two lab sessions weekly will reinforce the styles and techniques learned in class. **Prerequisites: successful completion of *Foods and Nutrition I and *Culinary Arts I**

***CULINARY ARTS I #5006250 (10th, 11th, & 12th grades)**

This course is designed to give the student a hands-on experience in quantity food production. Emphasis will be placed on the mastery of marketable skills for entry-level positions in the food service industry. The course covers an introduction to occupational food service skills, including the selection, purchase, and preparation of a wide variety of foods. The course also builds on nutrition, sanitation, and safety skills learned in *Foods and Nutrition I and *Foods and Nutrition II. *Culinary Arts I introduces the student to the “front-of-the-house” operations, which include practice in basic dining service, formal table settings, centerpieces, and napkin-folding techniques. **Prerequisite: successful completion of *Foods and Nutrition I**

***CULINARY ARTS II #5006260 (10th, 11th, & 12th grades)**

This course is intended for students who wish to further explore the field of food service and culinary arts as a career

and who wish to continue their formal education in this area. Students will develop basic employment skills, including, but not limited to, learning about specific techniques used in operating a food-related business. Special emphasis will be placed on learning about food costs and menu development. Students will be given the opportunity to explore careers related to the food service industry. **Prerequisites: successful completion of *Foods and Nutrition I and *Culinary Arts I**

***FOODS AND NUTRITION I #5050140** (9th, 10th, & 11th grades)

This course is open to students who wish to develop kitchen skills and acquire knowledge of the basics of cooking and baking. This entry-level course is a prerequisite to taking other Foods and Nutrition courses, as well as Culinary Arts. Topics include nutrition, kitchen safety, safe food handling, equipment identification and use, cooking terminology, and interpreting recipes. Cooking labs will occur 1-2 times per week to reinforce classroom learning.

***FOODS AND NUTRITION II #5052140** (9th, 10th, 11th, & 12th grades)

This half-year course is designed for students to build on skills introduced in *Foods and Nutrition I. Students will explore nutrition and healthy lifestyles to maintain and enhance health and wellness across the lifespan. Recipe preparations will introduce more complicated techniques and preparations, including working with yeast, preparing full meals, and financial management of the family food budget. Cooking labs will occur 1-2 times per week to reinforce classroom learning. **Prerequisite: successful completion of *Foods and Nutrition I**

***REGIONAL AND ETHNIC CUISINE #5055340** (10th, 11th, & 12th grades)

This half-year course studies the roots of American regional cooking and their worldwide ethnic origins. This course will also explore the diverse culinary traditions of cultures around the globe. Similarities and differences of each regional culinary tradition will be explored. A study of cultures associated with each area will be included. Cooking labs will occur 1-2 times per week to reinforce classroom learning. **Prerequisites: successful completion of *Foods and Nutrition I and *Foods and Nutrition II**

LIBRARY/MEDIA COURSE

***RESEARCH, DESIGN, AND CAREER DEVELOPMENT IN THE DIGITAL AGE #6052240** (9th, 10th, 11th, & 12th grades)

This half-year course is designed to give students a hands-on experience that will increase their knowledge while developing invaluable study, research, and technology skills. Students will investigate a career topic of their own interest while simultaneously learning strategies that will allow them to use a variety of traditional and digital information tools. Students will be introduced to Web 2.0 Tools, including wikis, blogs, and podcasts. This course will also give students an important introduction to a vast array of credible and questionable sources that they will evaluate while creating a final paper.

PHYSICAL EDUCATION/WELLNESS & HEALTH AND SAFETY EDUCATION COURSES

An effective physical education/wellness program is an integral part of every student's formal educational experience. Opportunities to develop basic physical skills as well as a positive attitude towards exercise, as it relates to good health, are provided. All students are required to pass physical education/wellness for two years. In addition, all students must pass at least one health elective prior to graduation.

PHYSICAL EDUCATION #8005150 (9th, 10th, 11th, & 12th grades)

The physical education/wellness program includes activities such as basketball, conditioning, flag football, floor hockey, volleyball, tennis, aerobics, soccer and other low organizational games, which may be scheduled as coed classes. The program focuses on improving skills and fitness. This class will meet every other day for a full year.

HEALTH AND SAFETY EDUCATION

Any of the following electives will fulfill the health graduation requirement:

***CURRENT HEALTH ISSUES #8054140** (9th, 10th, 11th, & 12th grades)

This interactive course will enable students to explore the most current topics in health and safety education. Areas

of discussion will include: relationship and dating issues, teen pregnancy, eating disorders, substance abuse, and other health related topics. This class will include the health curriculum mandated by the State of Connecticut and will also meet the SHS graduation requirement.

***NUTRITION FOR HEALTH #8055140** (9th, 10th, 11th, & 12th grades)

Nutrition for health will examine the components of nutrition as they relate to lifelong wellness. Topics include overview of the nutrients, food selection, eating disorders, and exercise nutrition.

***PERSONAL HEALTH AND FITNESS #8064140** (10th, 11th, & 12th grades)

This course will combine fun and exciting physical activity, healthy eating practices, and knowledge of fitness concepts to help students develop an optimum level of physical fitness. Physically active participation is a requirement for successful completion. At the conclusion of this class students will understand the significance of a healthy lifestyle. Participants will become advocates in the pursuit of optimal health and fitness. This class will include the health curriculum mandated by the State of Connecticut and will also meet the SHS graduation requirement. **Prerequisite: successful completion of .5 Physical Education/Wellness credits**

***STANDARD FIRST AID/CPR #8060440** (9th, 10th, 11th, & 12th grades)

This course will give fundamental principles and knowledge of and skills in first aid and accident prevention. It prepares persons to care for most injuries and to meet most emergencies when medical assistance is delayed. Cardiopulmonary Resuscitation (CPR) instruction will be provided for all students enrolled in the first aid course. CPR teaches a rescue method used to aid a victim who has experienced heart failure and has ceased to breathe. This class will include the health curriculum mandated by the State of Connecticut and will also meet the SHS graduation requirement. At their own financial expense, students will have the option of receiving official CPR/First Aid Certification through the supporting organization following successful completion of the course.

WORLD LANGUAGES COURSES

Although students in the Classes of 2019, 2020, or 2021 are not required to take a world language in order to graduate from Shelton High School, we strongly encourage students to pursue language studies. For both the college bound student and the student entering the work force after graduation, knowledge of a world language is a highly desirable skill. Generally speaking, students are encouraged to take three or four years of one world language rather than two years of two world languages to satisfy college requirements.

Students in the Class of 2022 are required to take 1 credit in World Languages.

A student who earns a grade of "D" or better for the year must advance to the next year of the same language or choose to begin a new language. However, if a student receives an F, he/she must either repeat the same course during the summer or during the school year or start a new language. Students advancing from Language III to Language IV must have the recommendation of their current World Languages teacher.

ADVANCED PLACEMENT FRENCH LANGUAGE #1515555 (11th & 12th grades)

This course is designed to prepare students to communicate proficiently through the three modes of communication (Interpersonal, Interpretive, and Presentational) as defined in the "Standards for Foreign Language Learning in the 21st Century." For this reason, the course will be conducted entirely in French. Coursework will provide students with opportunities to achieve the Course Overarching Premise: "When communicating, students in the AP French Language and Culture course will demonstrate an understanding of francophone cultures, incorporate interdisciplinary topics (connections), make comparisons between their native language and French and between cultures (comparisons), and use the target language in real-life situations (communities)." **Prerequisite: successful completion of French III**

ADVANCED PLACEMENT SPANISH LANGUAGE #1527445 (11th & 12th grades)

The AP Spanish course focuses on the mastery of the four skills of listening, speaking, reading, and writing. Aural/oral skills are improved through the use of tapes and daily conversation practice. Intense grammar review is ongoing throughout the year. Students also read literary and journalistic prose, understand lectures and conversational language, participate in class discussion and conversations, and write essays. **Prerequisite: successful completion of Spanish III**

FRENCH I #1511140

The objective of French I is to teach the student to understand the spoken language as well as reading and

comprehension. Students will learn to construct simple sentences and understand the cultures of French-speaking people.

FRENCH II #1512140

The objective of French II is to further develop the skills of listening, speaking, reading and writing. Review of basic structures is completed and more advanced grammar is included. Students are encouraged to develop an appreciation of the customs and cultures of French-speaking people.

FRENCH III #1513240

At this level, the emphasis is placed upon advanced oral and written skills. Conversational skills are stressed. Students continue their study of French customs and culture.

ITALIAN I #1501140

The objective of Italian I is to teach the student to speak, read, write, and understand the Italian language. Students will learn to respond to oral questions, write sentences and compositions and will also learn about the customs of the people of Italy.

ITALIAN II #1502140

Students will continue the work they began in Italian I. They will learn to construct more involved compositions in Italian, as well as answer questions both orally and written. They will be introduced to more Italian culture and history.

ITALIAN III #1503240

Students will continue to work on grammar, conversation, composition, and vocabulary studies. They will continue their study of Italian culture, history, and literature.

ITALIAN IV #1504340

With emphasis on greater proficiency, students will continue to work on grammar, composition, and conversation skills. They will continue their study of Italian literature, history, and culture.

SPANISH I #1521140

This course is designed to introduce students to the Spanish language and to help students to communicate in the present tense at the novice level. The cultures of several Spanish-speaking countries are explored. Focus is on all four language skills: listening, speaking, reading, and writing.

SPANISH II #1522140

This course will continue to develop and improve the Spanish communication skills students acquired in Spanish I. Students will begin to communicate in the past tense. Focus is on all four language skills: listening, speaking, reading, and writing. Culture will continue to be an integral part of the course, as the culture of additional Spanish-speaking countries is explored.

SPANISH III #1523240

This course will continue to develop and improve the Spanish communication skills students acquired during previous levels of Spanish. Focus is on all four language skills: listening, speaking, reading, and writing. Students are expected to achieve a greater command of the Spanish language. Culture of several Spanish-speaking capital cities will be explored.

SPANISH IV #1524340

This course will continue to develop and improve the Spanish communication skills students acquired during previous levels of Spanish. Focus is on all four language skills: listening, speaking, reading, and writing. Advanced structures and composition are an integral part of this course. Culture and history of several Spanish-speaking countries and regions will be explored in depth.

UCONN SPANISH 3179 – Spanish Conversation: Cultural Topics (3 UConn credits) #1529345 (11th & 12th grades)

This college course provides an in-depth development of speaking skills through cultural readings, group discussions and oral presentations on selected topics concerning the Spanish-speaking world. **Prerequisites: successful completion of Spanish III/UConn application**

The following World Languages elective will be offered during the 2019-2020 school year:

UCONN SPANISH 3178—Intermediate Spanish Composition (3 UConn credits) #1528345 (11th & 12th grades)

This college course provides a thorough review of grammar and methodical practice in composition leading to a command of practical idioms and vocabulary. Students will analyze different literary texts to improve their grammar and vocabulary. **Prerequisites: successful completion of Spanish III/UConn application**

SPECIAL SERVICES COURSES

Shelton High School offers a continuum of Special Education and related services to meet the individual needs of identified students. In accordance with the Individuals with Disabilities Education Act (IDEA) students receive their instruction in the Least Restrictive Environment (LRE). Related services are offered to those students requiring specialized therapy and include: Physical Therapy; Occupational Therapy; and Speech & Language Therapy. Recommendation to all Special Education classes is made via the Planning and Placement Team (PPT) process. Placement options include:

Adjusted Curriculum

Special Education staff delivers instruction to special education students in the four core subject areas, study skills, life skills, and proficiency courses.

Therapeutic Support Classes

Students in this classroom are monitored in the areas of self-control, responsibility and interpersonal skills. Core academic classes also are offered in this classroom.

Collaborative Classes

Special Education and general education staff work together to deliver instruction in classes comprised of special education and general education students.

Life Skills Classes

Life Skills I, II, III, Career Explorations, and Work Experience classes are offered.

These courses are available for those students who, by PPT, are determined to be eligible for special services:

BIOLOGY #9022220 (9th & 10th grades)

This course involves the study of fundamental concepts starting from protists to plants and animals and finally to man. Upon completion of this course, the student should be aware of the basic concepts of Biology. Laboratory experiences are added where applicable and deal with practical demonstrations for the student.

CAREER EXPLORATIONS #9042120 (11th & 12th grades)

This course provides the student an opportunity to participate in entry-level work experience within the school building. Students will be exposed to small business tasks such as collating, stapling, laminating, copying, and office delivery. Emphasis will be placed on social interactions within the work place, employer/employee relations, employee responsibilities, and job completion.

***CIVICS #9080240 (11th & 12th grades)**

The goal of this course is to prepare young Americans to understand and carry on the fundamentals of our American Republic. This half-year course focuses on the study of what it means to be a responsible, knowledgeable, participating citizen and blends the study of our nation's constitutional history with the structure of our government and its laws. Students will study how ideas about government change over time, and how these ideas apply to current issues impacting our society. The State of Connecticut has made this a required course for students.

COMPREHENSION STRATEGIES #9034150 (9th, 10th, 11th, & 12th grades)

This is a course specifically intended to improve student skills with reading comprehension through the use of a research-based program. This course is independent of general English courses. The Visualizing and Verbalizing® (V/V®) program develops concept imagery—the ability to create an imagined or imaged gestalt from language—as

a basis for comprehension and higher-order thinking. The development of concept imagery improves reading and listening comprehension, memory, oral vocabulary, critical thinking, and writing (directly from Lindamoodbell.com). Enrollment into this course is by PPT decision.

CONSUMER MATH #9016340 (11th & 12th grades)

This course is intended to provide students with the basic skills to maintain their personal finances related to income, shopping, and general living expenses. The mathematics of sales tax, discounts, interest, installment buying, unit pricing, budgeting, and travel will be covered.

ENGLISH I (#9001110), II (#9002220), III (#9003330), IV (#9004440) (9th, 10th, 11th, & 12th grades)

The English program emphasizes real life skills utilizing written and oral expression, creative writing and literature and pleasurable reading. These courses meet the objectives of the English program as they apply to ninth through twelfth grade students and their individual needs.

ENVIRONMENTAL SCIENCE #9023320 (9th, 10th, 11th & 12th grades)

This course will explore the issues that make up the study of the environment through an examination of current issues and topics. Subject material will include history of Earth, Earth's systems, weather and climate, human sustainability, and ecosystems.

ESSENTIALS OF MATH #9010240 (9th grade)

This course focuses on specialized math skills dependent on student ability and need. Problem solving, reasoning, computing and estimating problems and skills *are addressed in a real-world context*.

***HEALTH, SAFETY & PHYSICAL FITNESS #9055140** (9th, 10th, 11th, & 12th grades)

This course will provide the student with a comprehensive approach to personal relationships. Appropriate social interactions in the home, school, community, and workplace will be addressed. Personal health, safety, and well-being will be topics of study throughout this course. Placement will be by PPT decision.

LIFE SKILLS I (#9040110), II (#9041240), III (#9042340), IV (#9043440) (9th, 10th, & 11th grades)

These courses are designed to assist students in enhancing self-determination and self-advocacy skills. Activities may focus on increasing student's self-awareness, social/communication and assertiveness skills, independent living skills, problem-solving skills, decision-making skills, goal setting and knowledge of one's rights and responsibilities.

MATH FOR EVERYDAY LIVING #9010340 (10th & 11th grades)

This course focuses on specialized math skills dependent on student ability and need. It stresses basic math skills needed to function in today's world. This may include addition, subtraction, multiplication, division, as well as fractions, decimals, percents, and becoming proficient with a calculator.

MODERN WORLD HISTORY #9032220 (9th grade)

This course will study material from the French Revolution to the present. It may include map skills and current events.

PHYSICS/CHEMISTRY #9024340 (10th grade)

This course provides a half-year each of chemistry and physics. The program is geared to practical aspects of these sciences including force and work, mechanical advantage, electricity, matter and energy, the Periodic Table, atoms, and chemicals and their formulas. Laboratory experiences are added where applicable and deal with practical demonstrations for the student.

READING FOR DECODING AND ENCODING #9033140 (9th & 10th grades)

This course is for students who have mild to moderate gaps in their decoding and spelling proficiency. It is a word level intervention program with a systematic focus on word structure. Enrollment into this course is by PPT decision.

REAL LIFE APPLICATIONS #9046140 (9th, 10th, 11th, & 12th grades)

The purpose of this course is to help the student develop an awareness of appropriate, socially-acceptable behaviors. A counseling component combined with academic support will be provided. Enrollment into this course is by PPT decision for those students in the behavior support program.

STUDY SKILLS #9044140**(9th & 10th grades)**

This full-year course meets every day. Emphasis is placed on study skills, test taking skills, organization, note taking and methods to help students succeed in the mainstream.

SURVEY OF ALGEBRAIC TOPICS #9016350**(9th & 10th grades)**

Students will engage in the study of algebraic topics with a focus on problem-solving, real world applications, modeling, and the appropriate use of technology. Course content will include the study of real numbers, variables, equations, and data analysis. Students will utilize technology to solve applied problems, create and interpret graphs, and explore algebraic concepts.

UNITED STATES HISTORY I #9034340**(10th grade)**

This course will study material from the American Revolution to World War I. It will include map skills.

UNITED STATES HISTORY II #9003210*(11th grade)**

This course will study World War II through present times. It may include map skills and current events.

****WORK EXPERIENCE PROGRAM #9054240 (2 credits)****(11th & 12th grades)**

The course is designed to offer Special Education students a “job shadowing” opportunity. It provides a career training experience, which prepares the student for realistic, ongoing and gainful employment best suited to his or her needs, interests, and abilities. All participants must be 16 years of age and recommended by the Planning and Placement Team. This course will be assessed as on-the-job training with a pass/fail grade.

POST GRADUATE/TRANSITION COURSES

The following courses are available to 18-to-21-year-old post graduates who have successfully completed their academic requirements and participated in senior activities at SHS. The primary goal of the program is to assist in promoting the integration of Shelton’s young adults into various aspects of the community, further developing life skills competencies and increasing workplace skills. No credit will be awarded for these classes. Grades will be issued on a pass/fail basis in accordance with the student’s IEP. Placement into these courses is by PPT recommendation.

CAREER TRANSITIONS #9025550**(12+)**

This course will provide the student with essential workplace skills necessary for obtaining and maintaining a job as well as developing attitudes and behavior necessary for job success.

COMMUNITY LIFE SKILLS #9044440**(12+)**

This course will provide the student with opportunities to access the community to attend to personal health, daily life needs, and leisure activities. Activities may include experiences in shopping, dining out, banking, library and post office visits, and recreation. The curriculum will incorporate academics with life opportunities and focus on the development of meaningful and relevant independent living skills.

SURVIVAL SKILLS FOR INDEPENDENT LIVING #9026550**(12+)**

This course will incorporate hands-on experience to improve comprehension in the areas of domestic skills, personal safety and care, and communication skills.

STATEMENT OF NON-DISCRIMINATION

In compliance with Title VI, Title IX and Section 504 of the Rehabilitation Act of 1973, the Shelton Board of Education does not discriminate on the basis of race, creed, color, national origin, age, sex, marital status, or handicap in establishing and implementing hiring and employment practices and establishing and providing school activities and educational programs.

INFORMATION REGARDING SECTION 504 OF THE REHABILITATION ACT OF 1973

Section 504 is an Act which prohibits discrimination against persons with a handicap/disability in any program receiving Federal financial assistance. The Act defines a person with a disability as anyone who:

1. has a mental or physical impairment which substantially limits one or more major life activities (major life activities include activities such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working);
2. has a record of such impairment; or
3. is regarded as having such an impairment.

In order to fulfill its obligation under Section 504, the Shelton school district recognizes a responsibility to avoid discrimination in policies and practices regarding its personnel, students, parents and members of the public who participate in school sponsored programs. No discrimination against any person with a disability will knowingly be permitted in any of the programs and practices in the school system.

The school district has specific responsibilities under the Act, which include the responsibility to identify, evaluate, and if the child is determined to be eligible under Section 504, to afford access to appropriate educational services. If the parent or guardian disagrees with the determination made by the professional staff of the school district, he/she has the right to a hearing with an impartial hearing officer.

Other persons who feel that they may be entitled to services under Section 504 should contact the Section 504 coordinator. If they disagree with the resolution offered by the school they may file a grievance. The Family Educational Rights and Privacy Act (FERPA) also specifies rights related to educational records. The Act gives the parent or guardian the right to: (1) inspect and review his/her child's educational records; (2) make copies of these records; (3) receive a list of all individuals having access to those records; (4) ask for an explanation of any item in the records; (5) ask for an amendment to any report on the grounds that it is inaccurate, misleading, or violates the child's rights; and (6) a hearing on the issue if the school refuses to make the amendment. If there are questions, you may contact Dr. Elizabeth Hannaway, 504 coordinator for the school district, at 924-1023, extension 340.

CURRICULUM LEADERS, SCHOOL COUNSELORS, AND COORDINATORS

Additional questions regarding course structure, content, or credit may be directed to the individuals listed below.

<u>DEPARTMENT</u>	<u>CURRICULUM LEADER</u>	<u>ROOM</u>
English	Ms. Dana Jeanette-Kneen djeanette@sheltonpublicschools.org	326
World Languages	Mrs. Karen Giordano kgiordano@sheltonpublicschools.org	306
Social Studies	Mr. Jim Hill jhill@sheltonpublicschools.org	119
Math	Mrs. Diane Houghton dhoughton@sheltonpublicschools.org	129
Science	Mrs. Mary Clark mclark@sheltonpublicschools.org	403
Career and Technical Education	Mr. Michael Merati mmerati@sheltonpublicschools.org	235
Music	Miss Deb Keller dkeller@sheltonpublicschools.org	
Physical/Health/Athletics Education	Mr. John Niski jniski@sheltonpublicschools.org	Athletic Office
Special Services	Mrs. Jennifer Wolyniec jwolyniec@sheltonpublicschools.org	407
School Counseling & AP/UConn ECE Coordinator	Mrs. Kathleen Riddle kriddle@sheltonpublicschools.org	Career Center
Library Media & VHS Site Coordinator	Mrs. Joan Tichy jtichy@sheltonpublicschools.org	Library Media Center
<u>SCHOOL COUNSELORS</u>		
School Counselor	Mrs. Lynn Giordano lgiordano@sheltonpublicschools.org	House 1
School Counselor	Mr. Edward Hilser ehilser@sheltonpublicschools.org	House 1
School Counselor	Ms. Lisa Papa lpapa@sheltonpublicschools.org	House 2
School Counselor	Mrs. Casey DeGennaro cdegennaro@sheltonpublicschools.org	House 2
School Counselor	Mr. Erik Martire emartire@sheltonpublicschools.org	House 3
School Counselor	Ms. Lisa Sapienza lsapienza@sheltonpublicschools.org	House 3