Bridgeport Public Schools

- **Earn college credit through Dual Enrollment while still in high school**
- **Experience hands-on learning**
- **Take classes with motivated, fun high school students**
- **Demonstrate your grit in a college AND career oriented school system**
- **Learn from and with amazing teachers**

Program of Studies for High Schools

2021-2022

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BRIDGEPORT BOARD OF EDUCATION

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Superintendent of Schools

Human Resources Office
Bridgeport Public Schools
45 Lyons Terrace – Room 310 Bridgeport, Connecticut 06604
Office: (203) 275-1042
Fax: (203) 337-0145

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Hello Bridgeport Families,

The Bridgeport Public Schools Program of Studies reflects a comprehensive high school program with a wide array of course offerings. Students are most successful when there are positive collaborative relationships among all members of the school community, diversity is valued and opportunities enable all to be a part of a nurturing school community. All students benefit from a comprehensive, rigorous educational experience. Using this guide to plan your individual academic program is essential to a meaningful and productive high school experience. Please review thoroughly the information provided regarding graduation requirements, prerequisites for courses, and course sequences so that your course requests are in line with your long-term goals.

All students and families should be working with your school counselor to develop a course of study that will help all students reach their goals. Course requests are a very important factor in our building of the master schedule for each high school in the district. We try to ensure that students have access to all courses that they wish to take. This process takes a lot of work over several months. Our hope is that each student in Bridgeport will pursue a program that is rigorous, challenging, and interesting. We encourage all students to take advantage of the rich and diverse offerings available so that they will be well prepared for any and all post-secondary opportunities. Bridgeport Public School teachers, counselors, and administrators stand ready to help you throughout this process. Please make sure that you take advantage of all the resources that are available to all students.

Michael J. Testani
Superintendent of Schools

Vision Statement

Bridgeport Public Schools envisions a culturally responsive, high-performing learning environment where students thrive academically, socially, emotionally and civically.

Mission Statement

We model excellence and equity in education for every child at every level by focusing on quality instruction and providing efficient systems and structures in schools to sustain a culture committed to success.

Belief Statements

We believe all students:

- Can learn and succeed at optimal levels.
- Will demonstrate progress over time and be successful.
- And parents are integral components to the child's academic success.
- Should be given the opportunity to take risks.
- Will benefit from the implementation of a culturally responsive, project-based education.
- Must be given the toolkit necessary for them to customize their own pathway for lifelong learning.
- Will understand that there is learning in reflection.

We believe all teachers and leaders:

- Set high expectations and produce high achievers.
- Meet the needs of all children.
- Continuously learn, investigate and grow professionally.
- Commit to supporting all students' academic growth.
- Engage in ongoing professional development.
- Understand that there is learning in reflection.

INFORMATION FOR STUDENTS AND PARENTS

The Bridgeport secondary schools are comprehensive and magnet high schools with a responsibility to all the students of the city. This means that an educational program must be available for students of varying abilities, interests, and goals. In order to provide such a program, the high schools offer curriculum support opportunities, in which every course offering is open to each student. You, the student, are guided in your selection of course offerings through the school's knowledge of your abilities, achievements, interests, and willingness to work.

SPECIAL EDUCATION

The Special Education Department ensures that all students with exceptional educational needs receive special education services. Students shall be educated within the least restrictive environment that will satisfactorily meet his or her educational needs. Individual programs, including necessary courses, will be decided by the student's Individual Educational Plan (IEP).

BILINGUAL EDUCATION

Bilingual Education is provided for students who have been assessed as dominant in a language other than English. The objective of Bilingual Education is to assist students in transitioning successfully into a general education English classroom. This transition is facilitated through native language content instruction, while also acquiring the necessary skills in English. The program includes: Transitional Bilingual Education in Spanish, English as a Second Language (ESL), and native language tutoring in Spanish, Portuguese, Vietnamese, Laotian, Cambodian, Haitian/Creole and Kurdish.

GRADING

Grades are given in all classes four times for full-year courses and twice for half-year courses. A letter grade scale ranging from A+ to F is used. Midterm exam and final exam grades shown on the report card are actual grades. The table below shows the conversion of the numerical grade to its corresponding letter grade:

Numerical Grade Range	**Letter Grade**
97-100	A+
93-96	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
65-66	D
<64	F

- For a **full-year course**, the report card will show seven grades:
  1st M.P. 2nd M.P. Midterm Exam 3rd M.P. 4th M.P. Final Exam Final Grade Average

Each marking period is 20% of the final grade; each exam (midterm and final) is 10% of the final grade average.

- For a **half-year/semester course** , the report card will show four grades:
  1st M.P. 2nd M.P. Final Exam Final Grade Average

Each marking period is 40% of the final grade; and the exam is 20% of the final grade average.

CLASS RANK

To recognize and reward individual achievement and at the same time to acknowledge different degrees of difficulty among courses and levels, a weighted scale is applied to student grades to determine class rank. Class rank is based on a cumulative grade point average over the years the student has attended high school. ***The student must have at least two full years at a Bridgeport high school in order to be included in the class rank.*** The Grade Point Average (GPA) is computed at the end of the junior year and again at the end of the first semester of the senior year. (Levels for all courses are indicated with the course description.) The table following shows the weighted quality point scale:

Weighted Grades *Board of Education Approved 3.9.09 6305.1*

Grades will be weighted as follows to allow for recognition and rewards of various levels of rigor associated with the course offerings.

Level 1 – AP, International Baccalaureate, Tech Prep, & Early College Experience (ECE) Level 2 – Magnet Honors
Level 3 – Honors, Magnet, & Pre-International Baccalaureate Level 4 – (A) classes

WEIGHTED SCALE

Grade	Level 1	Level 2	Level 3	Level 4
A+	4.6	4.4	4.2	4.0
A	4.4	4.2	4.0	3.8
A-	4.2	4.0	3.8	3.6
B+	4.0	3.8	3.6	3.4
B	3.8	3.6	3.4	3.2
B-	3.6	3.4	3.2	3.0
C+	3.4	3.2	3.0	2.8
C	3.2	3.0	2.8	2.6
C-	3.0	2.8	2.6	2.4
D+	2.8	2.6	2.4	2.2
D	2.6	2.4	2.2	2.0
F	0	0	0	0

HONOR ROLL

The honor roll, which is determined after each marking period, is not weighted. The requirements are as follows:

First Honors - an average of A- or better with no grade lower than a B **Second Honors** - an average of B or better with no grade lower than a C

Physical Education grades are not included in the average but the student must be passing.

ATTENDANCE *Board of Education Approved 4.3.12 Policy No. 5113*

The Bridgeport Board of Education is committed to working with students and their families to promote regular attendance, which in turn encourages personal growth by preparing the student to accept similar responsibilities in the world outside of the high school setting. These attendance regulations are designed to help students to understand that the benefits of regular attendance will be gained through responsibility and commitment.

High school students must be present in school for **a minimum of 160 days** to receive course credit (toward the 22.5 Credits required for graduation from high school until the 2023 graduates – 25 Credits are required for graduation from high school for 2024 graduates onward) for full year courses and for **a minimum of 80 days** for Semester courses at the high school level.

Students who do not meet this minimum requirement may appeal their loss of course credit to an Attendance Review Committee comprised of school administration and other staff, specifically: a teacher, administrator (not the student's housemaster), guidance counselor (not the student's counselor), and a member of the school's support staff (nurse, psychologist, social worker, possibly a second teacher or counselor).

CLASS CHANGE

Changes after the third week of school are not recommended. After that, students may change classes only under the following conditions:

- Student has been placed in the wrong class level
- Student has previously passed the class

Procedure:

- A note from teacher indicating reason for change
- A note from parent, confirmed in person or by phone, indicating reason for change
- Approval of principal

SELECTION OF COURSES

Careful planning and selection of studies in Grades 9-12 should be made with the following in mind:

1. What kind of program of studies does my scholastic achievement warrant?
2. Is my selection of a program well balanced between the academic courses and special areas courses?
3. Have my future plans been thoroughly discussed with parents, guidance counselors, and teachers?
4. What am I like as an individual? Do I have the drive, ambition, temperament, and interest for a particular course of study?
5. How do I want to earn my living? What skills and knowledge can I acquire in high school to be successful in a global society?
6. What are my plans for education beyond high school? If they involve an institution of higher learning, what specific courses must I take to meet the requirement of a four-year college, a junior community college, a nursing school, or a technical or vocational school?
7. What knowledge should I acquire in high school to ensure that I am college or career ready?

GENERAL RECOMMENDATION FOR COLLEGE PREPARATION

English	4 years
Social Studies	4 years
Mathematics (Algebra, Geometry, Calculus)	3-4 years
Science (including Biology, Chemistry, and Physics)	3-4 years
World Language	3-4 years

Three or four years of a single language is now preferred by colleges over the former two years each of two languages. It is realized that students will have different college entrance requirements according to the types of colleges they wish to enter and the courses of study they wish to pursue.

ASSESSMENTS

PSAT 8/9

This is a standardized test administered by the College Board for students in grades 8 and 9. This test establishes a baseline measurement of a student's college and career readiness as they begin high school. It helps students and teachers determine areas in need of support so a student is prepared for college upon graduation from high school.

PSAT/NMSQT

This is a standardized test administered by the College Board and National Merit Scholarship Corporation. For juniors, the scores from the October PSAT/NMSQT are used to determine eligibility and qualifications for the National Merit Scholarship Program. Students should consult with their counselors regarding registration.

SAT

This is a standardized test widely used in the United States for college admission. This test, reflecting the best of classwork, is typically taken in grades 11 and 12 and is focused on the knowledge and skills that current research shows are most essential for college and career readiness and success. Students should consult with their counselors regarding registration.

In grade 11 students participate in the CSDE SAT School Day, approved by the State Board of Education and that measures essential and grade-appropriate skills in reading, writing, and mathematics.

SAT Subject Area

These tests measure a student's knowledge of a subject area. They are given several times a year in American History, World History, Social Studies, Biology, Chemistry, Writing, Literature, Mathematics, Physics and Languages. Many colleges require scores from these tests as part of their entrance requirements. Students should consult with their counselors regarding registration.

ACT

This is a college readiness assessment. Scores from the ACT may be required as part of college admissions. Students should consult with their counselors regarding registration.

AP (Advanced Placement Tests)

The Advanced Placement (AP) program offers college level curricula and exams to high school students. Colleges and universities grant credit to students who successfully complete AP exams. Scores on AP Exams range from 1 to 5, with a "5" indicating that the examinee is "extremely well qualified." Students taking more AP coursework and exams will be better prepared for post-secondary study and may be exempt from some first level courses in college. Students should consult with their counselors regarding registration.

SBAC

The Smarter Balanced Assessment Consortium is a state-led consortium working to develop next-generation assessments that accurately measure student progress toward college- and career-readiness. This state mandated test is given to students in grade 3 through 8 English/Language Arts and Math. This test includes computer adaptive assessments as well as performance tasks.

ACCUPLACER

Accuplacer is a suite of tests that assess reading, writing, math, and computer skills utilizing a computer adaptive diagnostic online placement testing system. Educational institutions for accurate placement and remediation use it.

NGSS Science

The NGSS Science Assessment will be administered in Grades 5, 8 and 11. The NGSS Assessments are administered on computers, and these assessments use real-world science applications and questions requiring students to show that they can use science and engineering practices to demonstrate their understanding of science content.

NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA) STUDENTATHLETE ELIGIBILITY REQUIREMENTS

The NCAA initial-eligibility rules have changed.

If you plan to enroll in any Division I or Division II college or university, please read this information carefully. For students entering any college or university, your NCAA initial eligibility will be evaluated under the rules as described here. For students entering any Division I college, your NCAA initial eligibility will be evaluated under the 16 core-course rule as described on this sheet.

THE RULE:

DIVISION I **16 COURSE RULE** **16 Core Courses:**	**DIVISION II** **16 COURSE RULE** **16 Courses:**
4 years of English 3 years of Math (Algebra I or higher) 2 years of Natural/Physical Science (including one year of lab, if offered) 1 year of additional (English, Math, or Natural/Physical Science) 2 years of Social Science 4 years of additional courses (Any area listed above, foreign language or comparative religion/philosophy)	3 years of English 2 years of Math (Algebra I or higher) 2 years of Natural/Physical Science (one must be a lab science) 3 years additional (English, Math, or Natural/Physical Science) 2 years of Social Science 4 years of additional courses (Any area listed above, foreign language or comparative religion/philosophy)

Cont.

PLEASE NOTE: The "sliding scale" used by the NCAA now allows a higher core GPA to reduce the SAT component. A 2.5 core GPA will still need a 820 SAT score, a higher core GPA of 2.75 will need a 720 SAT score, a 3.0 core GPA will only require a 620 SAT score and a 3.55 core GPA will just need a 400 SAT score. The NCAA has stated that their research now indicates that core class grades were the best indicators of academic success during a student-athletes freshman year.

For current information regarding NCAA, please go to www.ncaa.org.

GRADUATION REQUIREMENTS

Class of 2022 and Before	Graduation requirements for the class of 2022 and before	**Class of 2023 and After**	Graduation requirements for the class of 2023 and after
Total Credits/Courses Needed for Graduation	22.5 Credits - /Courses	Total Credits/Courses Needed for Graduation	25 Credits - /Courses
English	4 Credits	Humanities (Including Civics and the Arts)	9 Credits
Science Elective Biology	2 Credits 1 Credit	Science, Technology, Engineering & Math (STEM)	9 Credits
Math Elective Algebra Geometry	1 Credit 1 Credit 1 Credit	Physical Education and Wellness	1 Credit
Social Studies Elective Civics US History	1.5 Credits 0.5 Credit 1 Credit	Health and Safety Education (Section 10-16b)	1 Credit
Vocational Education/Visual Arts/Performing Arts	1 Credit	World Languages	1 Credit
Physical Education	1 Credit	Mastery-Based Diploma	1 Credit
Health	0.5 Credit	Electives	3 Credits
Electives	6 Credits		
World Language	1 Credit		

Earned Credits Needed to Advance to the Next Grade Level	Grade 10 = 6 Credits
	Grade 11 = 12.5 Credits
	Grade 12 = 19 Credits

Minimum Credits Carried Each year at a Comprehensive High School	Minimum Credits Carried Each Year at a Magnet High School
Grade 9 = 8 Credits	Grade 9 = 8 Credits
Grade 10 = 8 Credits	Grade 10 = 8 Credits
Grade 11 = 8 Credits	Grade 11 = 8 Credits
Grade 12 = 6 Credits	Grade 12 = 6 Credits (3 courses each semester)

TENTATIVE FOUR-YEAR PROGRAM PLAN Class of 2020 & After

Working with their guidance counselors, students may use this form to map out their high school program.

Colleges often require more than these minimal requirements

Name: _____ ***Class of:*** _____

	Grade 9	Grade 10	Grade 11	Grade 12	Total Credits	Minimum Credits Requirements
HUMANITIES (Including Civics and the Arts)						**9**
STEM (Science, Technology, Engineering & Math)						**9**
Physical Education & Wellness						**1**
Health & Safety Education (Section 10-16b)						**1**
World Languages						**1**
Mastery-Based Diploma						**1**
Electives						**3**
Minimum Required Credits for Graduation						**25**

TENTATIVE FOUR-YEAR PROGRAM PLAN Class of 2019 & Before

Working with their guidance counselors, students may use this form to map out their high school program.

Colleges often require more than these minimal requirements

Name: _____ ***Class of:*** _____

	Grade 9	Grade 10	Grade 11	Grade 12	Total Credits	Minimum Credits Requirements
English						**4**
Science						**3**
Math						**3**
Social Studies						**3**
World Language						**1**
Physical Education						**1**
Health Education						**0.5**
Vocational Education/ Visual Arts/Performing Arts						**1**
Electives						**6**
Minimum Required Credits for Graduation						**22.5**

DUAL ENROLLMENT OPPORTUNITIES

HCC Advanced Manufacturing

Machine Technology I Certificate is designed to provide students with the advanced manufacturing skills for those seeking employment in machine technology and CNC manufacturing environments. Students develop advanced manufacturing skills in mathematics, blueprint reading II, principles of quality control, lathe II, milling II, and CNC II. Students spend approximately half their time in classroom activities and half in hands-on activities in the HCC new Advanced Manufacturing Center. Students will attend classes on HCC's Campus 5 days a week.

HCC High School Partnership Program

Housatonic and area high schools have signed agreements which permit eligible high school juniors and seniors to enroll in college-level credit courses at Housatonic at no cost under the Housatonic High School Partnership Program. To be eligible for consideration, students must have the written recommendation of their high school principal or counselor, have at least an 80 ("B") academic average, and test into college-level (non-remedial) courses. Students admitted under the High School Partnership Program are responsible for the cost of their books and transportation. Based on availability of funds, students might be eligible for a book voucher.

St. Vincent's Healthcare Career and College Readiness Program

Is a dual enrollment program in which students share time between their high school and St. Vincent's College. Students will be able to choose between several pathways, including certified nurse aide, patient care technician, pharmacy technician and community health aide. Upon successful completion of the program, students can graduate with not only a high school diploma but also a health care certificate and college credit from St. Vincent's.
Each semester students can earn 3 college credits and five high school points over the four year period.

UCONN Early College Experience

UConn Early College Experience (UConn ECE) is a concurrent enrollment program that allows motivated high school students to take UConn courses at their high schools for both high school and college credit. Every course taken through UConn ECE is equivalent to the same course at the University of Connecticut. Students benefit by taking college courses in a setting that is both familiar and conducive to learning. The University of Connecticut certifies high school teachers to serve as UConn ECE Affiliates and teach UConn ECE courses.

UB Dual Enrollment Program

The University of Bridgeport's Dual Enrollment Program offers an exciting opportunity for high school students to start earning college credits. High school students can earn University of Bridgeport credits by enrolling in approved classes taken at your high school. Once having successfully completed a Dual Enrollment Program course, the student will receive academic credit that is equal to completion of the same course taught at UB.

SCSU Dual Credit Program

Southern Connecticut State University Dual Enrollment Program offers an exciting opportunity for high school students to start earning college credits. High school students can earn SCSU credits by enrolling in approved classes taken at your high school. Once having successfully completed a Dual Enrollment Program course, the student will receive academic credit that is equal to completion of the same course taught at SCSU.

BRIDGEPORT REGIONAL AQUACULTURE
SCIENCE AND TECHNOLOGY EDUCATION CENTER
60 St. Stephens Road
Bridgeport, CT 06605 (203) 275-2926
FAX: (203) 337-0168

Mission Statement: - Teaching skills Today for a Sustainable Tomorrow

Administration
David Henry, Director

Guidance
Eric'ka Lalanne

Secretary
Janette Adams

BRIDGEPORT REGIONAL AQUACULTURE SCIENCE AND TECHNOLOGY EDUCATION CENTER

The Bridgeport Aquaculture Center is a regional facility located at Captain's Cove Seaport, which offers unique educational opportunities in marine-related technology and marine science. Students from Bridgeport, Fairfield, Milford, Monroe, Shelton, Stratford, and Trumbull attend these classes on a daily part-time basis. Academic credits in science and technology are awarded for the successful completion of the coursework. There are two unique components available at the school, each having its own specific educational mission in marine science and marine technology. The **Exploratory Program** is a daily two-hour part-time program, featuring semester-based, double period courses that offer rigorous instruction in a broad variety of topics in science, marine-related science and technology. The additional component is the **Bridgeport Aquaculture College Alliance (BACA),** which is offered to students in grade 12. Student instruction throughout the program is enhanced by practical application of the knowledge acquired in the classroom. These activities can be in the school's laboratories, at designated field site operations, or aboard one of the school's vessels.

BACA was designed with seniors in mind, who have either experienced the Exploratory program or are seriously considering aquaculture science and/or technology as a college major or career. This daily four-hour program offers in-depth instruction in the science, technology, mathematics and history of the aquaculture industry. Finfish and shellfish production is a focus, with instruction in the classroom as well as in the field, incorporating educational resources such as international cultural exchanges, governmental and university research projects, as well as participation in accredited college courses. College credit is offered through the University of Connecticut's ECE program, which is an academic program dedicated to providing high school students the opportunity to take college courses at our facility. Their instructors, the ECE faculty, are adjunct professors who are certified by UConn's ECE program coordinators. UConn credits are accepted at numerous colleges and universities across the country. ECE has earned nationwide respect through the talent of its student participants and 600 dedicated high school educators statewide. Students enrolled in the BACA program are awarded up to five credits for successful completion of courses. **If interested, see your guidance counselor or call (203) 275-2926.**

AQUACULTURE SCHOOL EXPLORATORY PROGRAM

2 class periods per day, 5 days per week, classes are 1 Credit unless noted otherwise. Courses levels are designated for weighing purposes: CP = College Preparatory, E = Elective, H = Honors, AP =Advanced Placement, CL = College Level

SCIENCE

AQUACULTURE BIOLOGY (CP)

SC110YAQMA **1 Credit – STEM** **Grades 9-10**

This course is designed to introduce the student to the study of life with emphasis on cell biology, energy relationships, physiology, genetics, development, ecology, and evolution. Through classroom, laboratory and boat activities, students will utilize scientific inquiry, literacy, and numeracy to explore and communicate these concepts. Students will have the opportunity to apply their understanding of biology as they evaluate current social issues. This course fulfills the high school biology requirement for graduation and is considered a laboratory course for college preparation.

EARTH & AQUACULTURE - HONORS (H)

SC219YTDMH **1 credit – STEM** **Grades 9-10**

In this course, students will study the Long Island Sound to represent Earth's formation and changing topography. We will strive to answer the following questions: How was Long Island Sound was formed? How do the Earth's systems sustain life in Long Island Sound? How has human activity influenced Earth's systems? How can we determine if a non-earth planet can sustain life and how would we modify that planet to do so?

MARINE ECOLOGY- HONORS (H)

SC211YAQMH **1 Credit – STEM** **Grades 10-12**

This course is a comprehensive examination of species which are central to fisheries and aquaculture. Laboratory and field work will provide students with techniques to identify species, describe functionality of specialized anatomical structures, and understand environmental parameters essential to the management of cultured species. Our research vessel will be utilized throughout the course for collection, identification, and observation of Long Island Sound species. Students will discuss conservation and fisheries management techniques. The course will conclude with an investigation of competitive interactions for food between humans, marine mammals, and other members of the food web. Laboratory work will include the culture of finfish, shellfish, and algae.

AQUACULTURE ENVIRONMENTAL SCIENCE (CP)

SC102YAQMA **1 Credit - STEM** **Grades 10-12**

Environmental Science is a study of the influences that can alter ecosystems with particular attention given to ocean and freshwater environments. Sources and effects of natural and man-made pollutants will be explored through case studies and field research. Students will culminate units on the various issues by exploring available means to solve problems.

AQUACULTURE CHEMISTRY 1 (CP)

SC201YAQMA **1 Credit – STEM** **Grades 11-12**

Aquaculture chemistry fulfills classroom and laboratory requirements by providing a basic understanding of general chemistry and leads the student into specialized fields of aquatic chemistry. This will include classroom and laboratory activities as well as a focus on the relationship between chemistry and aquaculture.

AQUACULTURE CHEMISTRY – HONORS (H)

SC201YAQMH **1 Credit - STEM** **Grades 11-12**

Honors Aquaculture chemistry fulfills classroom and laboratory requirements by providing an advanced understanding of general chemistry and leads the student into specialized fields of aquatic chemistry and instrumental analysis. This will include classroom and laboratory activities as well as a focus on the relationship between chemistry and aquaculture. Extra focus in placed on higher level problem solving and questioning to prepare students for earlier placement into our advanced sciences courses.

Prerequisite: Entrance exam & teacher recommendation necessary for enrollment

MED/VET CLINICAL LAB METHODS - HONORS (H)

SC311YAQMH **1 Credit – STEM** **Grades 11- 12**

This course is designed to introduce the concepts and practices of clinical laboratory science and to prepare students for careers in the biological, chemical, medical, or veterinary sciences. The course encompasses the full array of diagnostic protocols performed in the modern clinical laboratory. Students will perform a wide variety of biochemical, immunological, and molecular procedures that aid in the diagnosis, treatment, and prevention of disease. There will be an emphasis on analytical techniques for the detection and quantification of complex metabolites or other compounds of interest to contemporary medicine. **Prerequisite: Aquaculture Biology**

SEAFOOD SCIENCE- HONORS (H)

SC112YAQMH **1 Credit - STEM** **Grades 10-12**

This course is designed to train students in seafood safety and handling. In understanding the chemistry of food and microbiology, students will be prepared for implementation of, and certification in, ServSafe and HACCP principles. The practical knowledge gained will support their participation in the operation of a retail seafood market, as well as assisting guest chefs in demonstrating their culinary prowess at special events to be held at the Aquaculture Center.

CULTURE OF AQUATIC SPECIES - HONORS (H)

SC212YAQMH **1 Credit – STEM** **Grades 11-12**

Students are introduced to the history of aquaculture as a way of life and an industry in this course. They examine proper nutrition and, prevention and control of diseases, parasites, and pathogens. Students learn proper protocols for examining and evaluating water quality. Students gain hands-on experience maintaining finfish recirculating systems in our on-site hatchery, and study commonly cultured species firsthand. Proper use of equipment and supplies are practiced; importance of good record keeping in aquaculture is emphasized. **Prerequisite: Successful completion ("C" or higher) of Aquaculture Biology**

CHEMISTRY II – INSTRUMENTAL ANALYSIS HONORS (H)

SC202YAQMH **1 Credit – STEM** **Grades 11-12**

This course emulates the working environment of a research laboratory. Students will deal directly with contemporary analytical problems and technology. Laboratory investigations will address organic, biological, and environmental studies, in addition to the traditional emphasis on inorganic systems. Modern instrumentation will be utilized in performing laboratory investigations. **Prerequisite: Aquaculture Chemistry I.**

ADVANCED PHYSICS - HONORS (H)

SC301YAQMH **1 Credit – STEM** **Grades 11-12**

An accelerated and advanced course in physics for those students interested in the biological, chemical, environmental, and medical sciences. This course combines theory, applications, and laboratory activities in developing physical concepts and in demonstrating their relevance. This course is an advanced course which serves as an algebra-based survey of the major topics in Physics. Students will use Vernier software and technology equipment and classical Physics apparatus to engage in comprehensive lab activities to better comprehend the concepts and their application. **Prerequisite: Conference with instructor and guidance counselor.**

BIOTECHNOLOGY - HONORS (H)

SC210YAQMH **1 Credit – STEM** **Grades 11-12**

The Methods in Biotechnology course is designed to develop student communication, scientific inquiry and familiarize students with laboratory techniques and procedures used in the biotechnology laboratory. Students will investigate the diverse technologies that constitute biotechnology and the broad array of products created through the biosciences as they engage in an in-depth study of the structure and function of nucleic acids and proteins. Investigations will include the bioscience of the human body, the environment, aquaculture, and agriculture. Throughout the course activities, students will address how the applications of bioscience affect our quality of life, as well as examine the ethical and social implications of these cutting-edge technologies. PRE-REQ: Aquaculture Chemistry

BIOLOGY I – 1107 UCONN ECE (CL)

SC510YTDCL 1 Credit - STEM Grades 11-12

This course is designed to provide a foundation for more advanced courses in Biology and related sciences. Topics covered include molecular and cell biology, animal anatomy and physiology. Laboratory exercises include dissection of preserved animals. (college credit awarded through the University of Connecticut Early College Experience program). PRE-REQ: Aquaculture Chemistry

PHYSICS IN THE MARINE ENVIRONMENT - HONORS (H)

SC303YAQMH **1 Credit – STEM** **Grades 9-11**

This course is a science, technology, engineering, and math (STEM) course that utilizes engineering design process to teach basic engineering and physics concepts with a marine engineering theme. It is taught with a conceptual physics approach, that is, it will emphasize learning critical physics concepts including mechanics, pneumatics, conservation of energy, electricity and magnetism, and fluid mechanics, in direct application to hands-on projects. Students will work on projects that encompass the topics learned and apply the engineering design process to build, test and redesign their projects. Students will also construct an underwater remotely operated vehicle (ROV) and its dynamics under stress will be evaluated. This course also includes a variety of labs that help students investigate and allows them to apply their understanding to study the relationship between physical quantities.

TECHNOLOGY

MARINE CAD/CAM (E)

TE403YAQMA **1 Credit – STEM** **Grades 9-12**

Training in Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) is vital for several careers. This class helps students grasp the concepts needed to produce drawings essential in the planning, environmental, naval architecture, automotive, industrial design, architectural design and construction fields. Our focus will be to explore the elements of small boat design and construct both plans and physical prototypes of boat hulls. That hull will then be tested for hydrodynamic efficiency and stability.

MARINE CONSTRUCTION I (E)

TE401YAQMA **1 Credit – STEM** **Grades 9-12**

This is an introductory course for the development of the foundational wood-working skills necessary to construct marine-related projects. These skills include project planning, safe and proper hand and power tool use, accurate project construction techniques, and appropriate finishing techniques. The primary projects constructed are a half-hull model and a nautical knick-knack shelf. The course also introduces CNC routing and laser engraving techniques.

MARINE CONSTRUCTION II (E)

TE115SAQMA **1 Credit – STEM** **Grades 10-12**

Students will build upon the skills developed in the introductory course. They will be expected to have a plan chosen prior to the start of this class for an advanced project. Past projects have included small skiffs, kayaks and paddleboards. Advanced construction and finishing methodologies such as boat plan reading, stich-and-glue construction, fiber-glassing, and marine finishing techniques will be emphasized. PRE-REQ: Marine Construction I

MARINE CONSTRUCTION III (E)

TE403YAQMA **1 Credit – STEM** **Grades 11-12**

An advanced independent-study class for those students who require additional laboratory time to complete a project started in Marine Construction II. Students often need extra lab time in this class, so special transportation plans may be needed to accommodate this necessity. **PRE-REQ: Marine Construction II**

COASTAL NAVIGATION & PILOTING (E)

TE400YAQMA **1 Credit – STEM** **Grades 11-12**

Students will learn the fundamental concepts of navigational skills necessary to confidently solve most coastal navigation situations. This course utilizes real-life navigational problems to reinforce the critical concepts of chart reading, position finding, course plotting, basic rules of the road and the understanding of aids to navigation. Our bridge simulator provides the same accuracy as on-board a real vessel and can replicate the same conditions that may occur at sea. Successful graduates will acquire the skills necessary to pilot a vessel in coastal waters and will have preparation for the test for the U.S Coast Guard OUPV limited license. This is commonly known as a launch/tender license and is issued to those employed by organizations such as yacht clubs, marinas, formal camps, and educational institutions, limited to the specific activity and locality.

BRIDGEPORT AQUACULTURE COLLEGE ALLIANCE (BACA)

This program is designed 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, biotechnology, math, history, earth science and astronomy as related to aquaculture.

Students enrolled in the BACA Program are awarded up to 5 (five) credits, depending on the student's scheduling needs. This integrated course of studies offers an in-depth study of aquaculture to include the origins of aquaculture (history), aquaculture engineering (math, science and technology) and survey and analysis (math and science). The activities of the program are enhanced by the use of the research vessel, M/V Catherine Moore, as well as other boats.

Students are involved in a great variety of projects. They will have the opportunity to work side-by-side with marine scientists, business people and representatives from institutions of higher learning, both local and international. Computers are used to develop research skills, data collection and interpretation and to develop student-generated presentations for meetings and conferences. Additionally, field trips to various sites are an integral part of the reinforcement of the principles learned in class. Many internships become available to BACA students during the school year, such as the Norwalk Maritime Aquarium, the Milford NOAA laboratory and the University of Connecticut, to name a few. The goal of the BACA Program is to offer students the practical knowledge and sophisticated skills necessary to pursue either employment in the marine environment or a smooth transition to the many post-secondary educational opportunities available.

AQUACULTURE SURVEY & ANALYSIS - HONORS (H)

MA301YAQMH **1 Credit - STEM** **Grade 12**

In this course students' study and apply concepts of probability and statistics that are required to support research in aquaculture. Students work with computer spreadsheets to process data; analyze data; and develop computer simulations that

address the fundamental principles underlying the use of statistics. Measurement of central tendency, measures of dispersion, characteristics of frequency and probability distributions are used to summarize, display, and analyze data. Students develop a working knowledge of the rules of probability and explore topics in inferential statistics including confidence intervals, hypothesis testing, and correlation and regression analysis.

ORIGINS OF AQUACULTURE - HONORS (H)

SC600YAQMH **1 Credit - STEM** **Grade 12**

This course examines the critical issues that have affected the growth and development of world aquaculture throughout global history. Topics explored will include the effects of over-fishing, the development of various types of fish farming techniques, the effects that pollution and governmental regulations have on the aquaculture industry. Each topic will entail readings and discussions with several student presentations on selected topics throughout the year will be required.

AQUACULTURE ENGINEERING – HONORS (H)

TE405YAQMH **1 Credit - STEM** **Grade 12**

This course develops student competencies in the production of an aquaculture crop. It examines the various techniques used for the selection, grow-out, harvesting, processing, and marketing of selected species. Students will study the types of fish and shellfish grow-out methods used in the aquaculture industry today. A special emphasis will be placed on the design, construction, and maintenance of recirculating systems in our aquaculture laboratory.

ENVIRONMENTAL SCIENCE NRE 1000 UCONN ECE (CL)

SC102YTDCL **1 Credit - STEM** **Grade 12**

This course is an introduction to concepts of environmental concern and how these problems can be effectively addressed. Topics include: human population, ecological principles, biodiversity, as well as soil, water, and fish and wildlife conservation. (college credit awarded through the University of Connecticut Early College Experience program).

INTRO TO OCEANOGRAPHY 1003 UCONN ECE (CL)

SC501YTDCL **1 Credit - STEM** **Grade 12**

This course explores the interactions and interrelationships between physical, chemical, biological, and geological processes that contribute to both the stability and the variability of the marine environment. (college credit awarded through the University of Connecticut Early College Experience program) **Prerequisites: Successful completion ("C" or higher) of Aquaculture Biology and Aquaculture Chemistry.**

ECE AFTER SCHOOL PROGRAM

CHEMISTRY 127 – UCONN ECE

SC502YTDCL **1 Credit - STEM** **Grades 11-12**

This course is designed to provide a foundation for advanced courses in chemistry. It includes atomic theory, laws and theories concerning the physical and chemical behavior of gases, liquids, solids, and solutions. Quantitative measurements illustrating the laws of chemical combination, as well as equilibrium in solutions and qualitative reactions of the common cations and anions are explored within the laboratory component of this course. Students are responsible for their own transportation, as the course is two days per week after school. (college credit awarded through the University of Connecticut Early College Experience program) **Prerequisites: Successful completion of Aquaculture Chemistry I & Algebra 1 courses. Algebra 2 concurrent or completed.**

CHEMISTRY 128 – UCONN ECE

SC503YTDCL **1 Credit - STEM** **Grades 11-12**

continues the ECE Chemistry 127 course. Topics include: acid-based chemistry, equilibria (gaseous and solution), kinetics, solution theory and electrochemistry. Quantitative and qualitative measurements illustrating key concepts will be performed in the laboratory. **Prerequisites: Successful completion of ECE Chemistry 127.**

BIOLOGY 1107 – UCONN ECE

SC510YTDCL **1 Credit - STEM** **Grades 11-12**

Is designed to provide a foundation for more advanced courses in biology and related sciences; topics include molecular and cell biology, animal anatomy and physiology. Laboratory exercises in this course include dissection of preserved animals. **Prerequisites: Successful completion ("C" or higher) in high school Biology, Chemistry I or concurrent enrollment in ECE Chemistry 127 are recommended.**

BIOLOGY 1108 – UCONN ECE

SC511YTDCL **1 Credit - STEM** **Grades 11-12**

This advance biology course included topics that include ecology, evolution, genetics, plant biology and laboratory exercises. **Prerequisites: Successful completion ("C" or higher) in high school Biology, ECE Biology 1107, high school Chemistry I or ECE Chemistry 127 are recommended.**

PHYSICS 1201Q – UCONN ECE

SC516YTDCL **1 Credit - STEM** **Grades 11-12**

This advance physics course includes topics such as mechanics, dynamics, electricity and magnetism, rotational motion, and thermodynamics. Intensive lab work is also involved. **Prerequisites: Successful completion ("C" or higher) in high school Chemistry I or Physics**

BASSICK HIGH SCHOOL
1181 FAIRFIELD AVENUE
BRIDGEPORT, CT 06605
(203) 275-3081
FAX: (203) 337-0143

Statement of Core Values, Beliefs, and Learning Expectations

The Bassick High School community shares the belief that all students can learn, and we are committed to building on their unique learning styles to help them develop the habits of mind necessary for post-secondary success. We accept the responsibility to provide a safe, nurturing and collaborative environment where the voices of students, parents, staff and community are respected. We are dedicated to providing a diverse and challenging curriculum that piques our students' intellectual curiosity and encourages the creativity, innovation and the risk-taking necessary to succeed in today's global economy.

1. Use real-world digital and other research tools to access, evaluate and effectively apply information appropriate for authentic tasks
2. Work independently and collaboratively to solve problems and accomplish goals
3. Communicate information clearly and effectively using a variety of tools/media in varied contexts for a variety of purposes
4. Demonstrate innovation, flexibility and adaptability in thinking patterns, work habits and working/learning conditions
5. Effectively solve problems through analysis, synthesis and evaluation
6. Value and demonstrate personal responsibility, character, cultural understanding, ethical behavior and understanding of civil rights and duties

Administration

Joseph A. Raiola, Ph.D., Principal
Christopher Johnson, Assistant Principal
Beswick Channer, Assistant Principal
Peter Ziegler, Assistant Principal

**As of the 2020-2021 school year, Bassick has moved to a semester-based schedule. Students will have an advisory and 4 graded courses beginning in August until January. In January the students will then begin a new set of 4 graded courses and continue the same advisory class until the end of the school year in June. Students have the potential to earn 8 credits per year.

School Counseling Department

James Gildea
Karissa Shields
Kristen Byron
Kristi Wisse

9th through 12th grade students will meet with their School Counselor throughout their educational career to create and implement a Student Success Plan. During individual student meetings, students will be encouraged to select a Career Pathway. This will include post-secondary planning for options such as college, trade school, apprenticeship/internship, or military enlistment.

CTE Pathways:

- BUSINESS, CAREER AND TECHNICAL EDUCATION
  - In our Business, Career and Technical Education Pathway you will be introduced to money management, banking, budgeting, investing and marketing as well as learn about how to start your own business.
- Technology Education
  - There are several pathways you can follow within Technology education:
    - Automotive/ Transportation Pathway you will learn the basics of automotive maintenance and move towards mastery in automotive repair, detailing and maintenance. Later classes will provide students with an opportunity to work on building an aircraft and partner with Sikorsky and other mentors. This class will lead you towards a career in the automotive maintenance industry and/or aviation maintenance and repair.
    - Graphic Communications Pathway students will learn the fundamentals of design while creating business cards, flyers, calendars, etc. Students will learn to create their own web pages and create digital animations. This pathway can lead a student towards a future in Graphic Communications and/or IT.
    - Manufacturing Pathway students will learn the basics of machine use and manufacturing technology. This pathway can lead to the HCC Advanced Manufacturing Program where students can earn college credits towards an Advanced Manufacturing Certification.

Other Pathways:

- Visual Arts
    - In our Visual Arts Pathway students will learn a variety of artistic skills including (but not limited to) computer art technology including photoshop, hands on skills and camera usage and film development/special effects.
- Music Performing Arts
    - In the Music/Performing Arts Pathway students will be introduced to theatre (acting, set design, sound, lighting, etc) and/or musical instruments including one's own voice. Students will learn to utilize these skills to put on performances.

Bassick high School provides specialty programs/courses/external partnerships for our students to apply for to that will lead to advanced knowledge and possible certifications in these fields.

- ♦ RCA is an Arts centered program that happens off campus that students must apply for and get accepted into in 9th or 10th grade.
- ♦ Construction and Culinary are programs offered to 11th and 12th graders (that qualify with an application) that offer on job certifications as well as job readiness skills.
- ♦ The HCC Advanced Manufacturing program is offered to 11th and 12th graders (who complete the application process) and is a program that offers credits for Bassick as well as credits towards earning your Advanced Manufacturing certification from HCC (this program is off Bassick's campus and takes place at Housatonic Community College)

*For more information on these programs or how to apply, please contact your School Counselor *

General recommendations for college preparation

English 4 years	History 4 years
Mathematics 4 years	Science 4 years (including biology, chemistry, & physics)
World language 3-4 years	Electives in Major area to be studies in college
Completion of the SAT/ACT	Community Service

For the Class of 2023 and beyond

	Grade 9	Grade 10	Grade 11	Grade 12	Graduation
Points needed to move on to next grade level	X	6	12.5	19	25

BASSICK HIGH SCHOOL

GRADUATION REQUIREMENTS

For the Class of 2023: In accordance with the Board of Education, commencing with the graduating class of 2023 lincoming class of 2019-2020, in order to graduate and be granted a diploma, students must satisfactorily complete aminimum of twenty-five (25) credits, including and not fewer than:

9 Credits in humanities, including civics and the arts:
9 Credits in sciences, technology, enfineering and mathematics
1 Credit in physical education and wellness;
1 Credit in health and safety education
1 Credit in world language
1 Credit in mastery-based diploma assessment

Humanities / The Arts / World Language 9.0 Credits

English	**4.0 Credits**
Social Studies	**3.0 Credits**
Humanities & The Arts	**2.0 Credits**

Social Studies 1.0 Credit of United states / American History
Social Studies .5 Credit of Civics / Global Studies
*2.0 Credits: Courses that would fufill the additional 2 Credits required in Humanities & the Arts

(See Program of Studies for specific courses that fulfill this requirement)

STEM: Science / Technology / Engineering / Mathematics 9.0 Credits

Math	**4.0 Credits**
Science	**3.0 Credits**
STEM	**2.0 Credits***

Math 1.0 Credit of at least Algebra
Science 1.0 Credit of The Living Earth / 1.0 Credit Chemistry and Earth system
*2.0 Credits: Courses that would fulfill the additional 2 Credits required in STEM

(See Program of Studies for specific courses that fulfill this requirement)

Student Development & Wellness 2.0 Credits

Health & Safety	**1.0 Credit**
PE & Wellness	**1.0 Credit**

World Language 1.0 Credits

Mastery Based Diploma Assessment 1.0 Credits

Additional Credits 3.0 Credits

Total Credits 25 Credits

Course Offerings and Descriptions

BUSINESS, CAREER AND TECHNICAL EDUCATION

FINANCIAL LITERACY

BE110YTDGE **1 Credit** **Grades 9 - 12**

A semester course that provides students with the knowledge to effectively manage money and finances. The course will allow students to discover strategies for managing their money, explore skills for the wise use of money, and scrutinize various ways of investing money. Students will gain an understanding of the knowledge and skills necessary to achieve a lifetime of financial enjoyment while achieving personal goals.

ENTREPRENEURSHIP (NFTE)

BE132YTDGE **1 Credit** **Grades 11-12**

A semester course of study for juniors and seniors that teaches the fundamental skills of starting a small business through an experiential curriculum. Students are connected to real life experiences through interactive exercises, games, a trip to the wholesale district in New York City, a sales event, etc. as well as a partnership with business leaders in the community who offer in-class workshops and mentoring. Each student writes a business plan based on her/his interest, aided by executives. **Prerequisite Marketing Education 1**

MARKETING EDUCATION I

BE121YTDGE **1 Credit** **Grades 11-12**

A semester course designed to provide students with the fundamental concepts, principles, skills and attitudes common to the fields of marketing and management.

TECHNOLOGY EDUCATION

INTRO TO AUTOMOTIVE

TE301yTDGE **1 Credit - STEM** **Grade 9-10**

Develops knowledge of basic technical and operational aspects of automobile principles. Students receive both classroom and practical lessons in various systems that make up the modern automobile.

AUTOMOTIVE TRANSPORTATION 1

TE301YTDGE **1 Credit - STEM** **Grades 10-12**

Covers the introduction to power sources and the basics of the four-stroke cycle engine, including engine parts and their function, electrical part functions, hydraulic brake systems, exhaust systems, and basic tune up work. The development of tool and machine skills is stressed in such areas as engines, power trains, chassis, electrical systems, fuel systems, bodies, and accessories. Teacher demonstration is used extensively, including the use of computerized test equipment. Interpretation and application of technical manuals, manufacturer update publications, and periodicals are used as a means of keeping current with an ever-changing technology. Emphasis is placed on developing safe work habits while working on actual automobile components. Students will be introduced to Computer-Aided instruction and will become familiar with the start-up and use of the computer.

AUTOMOTIVE TRANSPORTATION 2

TE302YTDGE **1 Credit - STEM** **Grades 10-12**

Offers an opportunity to concentrate on specific “job shop” situations in sub-areas such as engine repair and assembly, tune-up, trouble-shooting, electronic test equipment, brakes, steering, fuel, exhaust, lubrication, cooling systems, electrical systems, body

work, transmissions, and other power train comments, plus hands-on use of computerized test equipment. Precise workmanship and safety are stressed. Technical, general, and occupational information is provided in the broad area of power mechanics and transportation. Students will use computers and automotive software to travel through the electrical, ignition, cooling, brake, and exhaust systems. Students will also learn about body and fender repair including metal cutting and forming, welding, grinding, metal stretching and shrinking, body fillers and car detailing. In addition, students enrolled in this program will have the opportunity to work with Tango flights and gain experience building an airplane.
Prerequisite: Automotive Transportation 1.

AUTOMOTIVE TRANSPORTATION 3

TE303YTDGE **1 Credit - STEM** **Grades 11-12**

Utilizes the same course description as Automotive Transportation 2 but offers more in-depth application and individualization. Students will use computers and automotive software to view front ends, transmissions, front wheel drive, anti-lock brakes, air restraint systems, and emission controls. In addition, students enrolled in this program will have the opportunity to work with Tango flights and gain experience building an airplane.
Prerequisite: Automotive Transportation 2

INTRO TO GRAPHIC COMMUNICATIONS

TE100yTDGE **1 Credit - STEM** **Grades 9-12**

A project-based course using the latest technology in computer- generated applications. Projects incorporate textbook materials, desktop publishing, hands-on activities, scanning, and digital and printing peripherals. Mathematics concepts, language arts and communication skills are an integral part of this course.

GRAPHIC COMMUNICATIONS 1

TE101YTDGE **1 Credit - STEM** **Grades 10-12**

Includes the basic practices in computer composition and desktop publishing, utilizing desktop workstations. Students learn the fundamentals of design and demonstrate this knowledge when creating business cards, flyers, calendars and notepads. Students are also introduced to digital photography and the Internet.

GRAPHIC COMMUNICATIONS 2

TE102YTDGE **1 Credit - STEM** **Grades 10-12**

Utilizes the same course description as Graphic Communications 1 with emphasis on individuality and industrial responsibilities. Students learn to create their own web pages and are introduced to computer animation.
Prerequisite: Graphic Communications 1.

INTRO TO MANUFACTURING TECHNOLOGY

TE112YTDGE **1 Credit - STEM** **Grades 10-12**

Provides students with a basic introduction to manufacturing and manufacturing in the global economy. Students will be expected to complete multiple manufacturing projects and create / understand technical drawings to manufacture projects. 3D modeling will be a part of the program.

MANUFACTURING TECHNOLOGY 1

TE113YTDGE **1 Credit - STEM** **Grades 10-12**

Provides students with a basic introduction to manufacturing and manufacturing in the global economy. Students will be expected to complete multiple manufacturing projects and create / understand technical drawings to manufacture projects. 3D modeling will be a part of the program.

MANUFACTURING TECHNOLOGY 2

TE114YTDGE **1 Credit – STEM** **Grades 10-12**

An advanced program providing students with advanced uses of manufacturing and manufacturing in the global economy. Students will be expected to complete multiple manufacturing projects and create / understand technical drawings to manufacture projects. 3D modeling will be a part of the program.

Prerequisite: introduction to manufacturing or manufacturing technology 1.

ENGLISH

HUMANITIES LAB I

EN001YTDGE **1 Credit - HUMANITIES** **Grade 9**

This is a humanities course taken concurrently with English 9 and/or World Civilization and is designed to extend time and learning opportunities through interventional support or enrichment. Will develop skills around the SAT test.

ENGLISH 9

EN101YTDGE **1 Credit - HUMANITIES** **Grade 9**

English 9 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. Students study literature, literary nonfiction, and composition. The major focus is on engaging students in a close, critical analysis of the qualitative features of complex texts ranging from short stories, essays, biographies, autobiographies, memoirs, novel, poetry, speeches, and plays. While all literary genres are included, emphasis is on the short story and engaging in discussion and written response to text dependent questions. The composition portion of this course concentrates on three forms of writing: narrative, informative/explanatory, and argumentative that includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with emphasis on writing over shorter time frames such as a single sitting or over a day or two from sources. In conjunction with reading and writing, students develop academic vocabulary, conventions of writing and speaking and listening skills. A short research project and an oral presentation with media are required.

ENGLISH 9 HONORS

EN101YTDHO **1 Credit - HUMANITIES** **Grade 9**

This English 9 honors course encompasses the objectives and requirements of the regular English 9 curriculum but requires students to work more with complete pieces of literature and literary nonfiction texts and fewer short stories with engagement in discussion and written responses to text dependent questions. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts across longer pieces of texts. Students will compose narrative, informative/explanatory, and argumentative texts that emphasize writing routinely over extended timeframes for research, reflection, and revision and writing over shorter time frames such as a single sitting or over a day or two. In conjunction with reading and writing, students develop academic and domain-specific vocabulary, develop knowledge of figurative language, conventions of writing and speaking and listening skills. A research project and an oral presentation with media are required.

Prerequisite: Teacher recommendation from 8th grade and high benchmark scores

ENGLISH 10

EN201YTDGE **1 Credit - HUMANITIES** **Grade 10**

English 10 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. This course introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence

from texts to support their written response. Composition includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with a balance between writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required.

ENGLISH 10 HONORS

EN201YTDHO **1 Credit - HUMANITIES** **Grade 10**

This English 10 Honors course serves as preparation for Advanced Placement English. This course encompasses the objectives and requirements of the regular English 10 curriculum and it introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions and requires that the honor student complete a significant amount of independent reading and writing beyond that required in English 10. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes a greater emphasis on writing routinely over extended timeframes for research, reflection, and revision from two or more sources and includes writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, knowledge of literary devices and figurative language, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required. **Prerequisite**: Teacher recommendation

ENGLISH 11

EN301YTDGE **1 Credit - HUMANITIES** **Grade 11**

English 11 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Students will compose narrative, informative/explanatory, and argumentative texts and will analyze, evaluate, and integrate information from sources to support their composition. Composition includes writing routinely over extended timeframes for research, reflection, and revision from three or more sources with a balance between writing over shorter time frames such as a single sitting or over a day or two. Students will publish essays, book reviews, an interdisciplinary American literature project, resume, application, and cover letter; college essay, formal research paper, an autobiographical sketch, and a media project. Students read literary nonfiction, autobiographies, biographies, and novels, most selected for literary merit and their applicability to self-discovery and personal responsibility. The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills. Oral language and computer skills are an integral component of English 11 and an oral research presentation with media is required.

ENGLISH 11 – AP

EN301YTDAP **1 Credit - HUMANITIES** **Grade 11**

The AP English Language and Composition course is an introductory college-level rhetoric and writing course with a rigorous curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students close read, evaluate, synthesize, and cite specific evidence/research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices utilizing appropriate and well-developed vocabulary (including subject specific vocabulary and vocabulary appropriate to audience and task). Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. Students will compose in several forms (e.g., narrative, expository, analytical, and argumentative essays) about a variety of subjects and prose style genres. The course includes writing research papers, which use college level writing style for informal and formal writing using Modern Language Association and The Chicago Manual of Style). **Prerequisite**: Teacher Recommendation.

ENGLISH 12

EN401YTDGE **1 Credit - HUMANITIES** **Grade 12**

English 12 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Composition at the beginning of the course includes the college essay, applications, and resumes. Additionally, students will compose essays, poems, a formal speech, a formal research paper, editorials, letters to editor, critiques, media projects using a variety of text types (i.e., narrative, informative/explanatory, and argumentative) and for a variety of purposes. Students will analyze, evaluate, and integrate information from multiple sources to support their composition and students will also write for shorter time frames such as a single sitting or over a day or two. Students will read literary non-fiction, plays, short stories, novels, and other works. This course focuses on literary traditions among African-Americans and places those traditions in their historical and world context as well as other pieces of literature from around the world, most noted for literary merit (e.g., Letter from Birmingham Jail, Don Quixote, and Shakespeare). The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills to further education, college, or career. Oral language and computer skills are an integral component of English 12 and an oral research presentation with media is required.

ENGLISH 12 – AP

EN401YTDAP **1 Credit - HUMANITIES** **Grade 12**

The AP Literature and Composition Course is an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature (fiction, drama, poetry) to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, narrative, and argumentative essays that require students to analyze and interpret literary works that takes the writing through the processes of drafting, editing, revision and publishing final drafts. Students will be required to read texts over the summer and write about the texts. See instructor for details. . The course includes writing college essays and a research paper, which includes use of appropriate and cited evidence to support argument/claims (using college level writing style for informal and formal writing using Modern Language Association and The Chicago Manual of Style). **Prerequisite**: Teacher Recommendation.

JOURNALISM

EN311YTDGE **1 Credit - HUMANITIES** **Grades 11-12**

Introduces the student to basic journalistic skills. Students learn to develop a respect for truth in written work. They also evaluate and organize facts using a variety of news writing techniques. Students use these basic journalistic skills to produce a school newspaper. **Prerequisite: A grade of "B" or better in prior year English.**

MATHEMATICS

STEM LAB I

MA001YTDGE **1 Credit - STEM** **Grades 9**

Is a STEM (Science Technology Engineering and Math) course taken concurrently with Algebra I or Physical Science and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

ALGEBRA 1

MA101YTDGE **1 Credit - STEM** **Grades 9-12**

Involves applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents and performing operations

with polynomials. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections and communicating mathematically.

ALGEBRA 1 HONORS

MA101YTDHO **1 Credit - STEM** **Grade 9**

Is designed for students who have exhibited a high degree of skill in both mathematical manipulation and logical thinking. Topics include applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting an analyzing linear trends, exploring and applying the laws of exponents, performing operations with polynomials, solving and graphing quadratic equations, and solving and graphing linear inequalities. Considerable emphasis is placed on the applications of concepts through the use of open-ended word problems, performance assessments, technology, multiple representations, making mathematical connections and communicating mathematically

Prerequisite: (Middle School Students) Grade 8 Math with minimum of "B+", Teacher Recommendation, and Grade 8 end-of year test score of 75 or higher.

ALGEBRA 2

MA202YTDGE **1 Credit - STEM** **Grades 11-12**

Seeks to develop a higher degree of skill and accuracy in algebraic techniques and understanding of the structure of mathematical systems. Topics include a review and an extension of many concepts developed in Algebra 1, such as solving and graphing linear and quadratic equations. Other topics incorporated in this course include: solving and graphing exponential, logarithmic and rational functions and writing and identifying properties of conic sections. Emphasis is placed on problem solving using graphing calculator and computer activities, mathematical reasoning and connections. **Prerequisites: Algebra I and Geometry.**

ALGEBRA 2 HONORS

MA202YTDHO **1 Credit - STEM** **Grades 11-12**

Expands on the topics of Algebra 1 Honors and provides further development of the concept of nonlinear functions. The expanded topics include quadratic, exponential, rational, and polynomial functions, sequences and series and the complex numbers system. Emphasis will be placed on the theory and practical applications of Algebra through the use of graphing calculators and related computer software. **Prerequisite: Algebra and Geometry and Teacher Recommendation.**

GEOMETRY

MA201YTDGE **1 Credit - STEM** **Grades 9-12**

Includes the concepts of geometric figures, parallelism, congruency, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and computer software; mathematical connections; critical thinking skills; reasoning; and communicating mathematically. Hands-on activities will also be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts. **Prerequisite: Algebra I**

GEOMETRY HONORS

MA201YTDHO **1 Credit - STEM** **Grades 9-11**

Emphasizes the further development of skills, techniques and connections of geometric concepts. Topics include in-depth study of the properties and classification of triangles and polygons, similarity and congruency, transformations, properties of circles including arcs, chords and tangents, trigonometry and deductive reasoning and proof. Hands-on activities will be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts. **Prerequisite: Algebra I**

PROBABILITY & STATISTICS

MA301YTDGE **1 Credit - STEM** **Grades 11-12**

Introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will work with statistical measures of central tendency and spread and methods of sampling and experimentation. Students will use

multiple representations to present data, including written descriptions, numerical statistics, formulas and graphs. **Prerequisite: Algebra I**

TRIGONOMETRY

MA203YTDGE **1 Credit - STEM** **Grades 11-12**

Provides students with instruction related to the concepts, theorems, definitions, vocabulary and applications of Trigonometry. Topics include functions of the acute angle, the right triangle, circular functions, oblique triangles, methods For solving application problems and connections to other technical areas. Calculators and computer applications are an integral part of the instruction. It is recommended that this course be taken simultaneously with Algebra 2. **Prerequisites: Algebra I and Geometry**

PRE-CALCULUS - HONORS

MA400YTDGE **1 Credit - STEM** **Grades 11-12**

Includes the study of relations and functions, exponential and logarithmic functions, Trigonometry and triangles, Trigonometric functions, sequences and series, and data analysis. The purpose of this course is to study functions and develop the skills necessary for the study of Calculus. **Prerequisite: Algebra 2 and Teacher Recommendation.**

CALCULUS

MA401YTDGE **1 Credit - STEM** **Grades 11-12**

Covers all topics algebraically, geometrically, and analytically. These include: functions, analysis of graphs, limits, continuity; derivatives at a point and of functions, second derivatives and applications and computation of derivatives; interpretations and properties of definite integrals, applications of integrals, including volumes of solids of revolution, disks, and washer; the Fundamental Theorem of Calculus; and techniques and applications of anti-differentiation and numerical approximations to definite integrals. Students are required to take the Advanced Placement examination in May and may receive credit for up to two semesters of Calculus**. Prerequisite: Successful completion of Pre-Calculus and Teacher Recommendation.**

SCIENCE

GENERAL SCIENCE

SC120YTDGE **1 Credit - STEM** **Grade 9**

A semester course introducing the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

GENERAL SCIENCE HONORS

SC120YTDHO **1 Credit – STEM** **Grade 9**

A semester course introducing the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

BIOLOGY

SC110YTDGE **1 Credit - STEM** **Grades 10**

Is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. Required of all Grade 10 students. There will be one lab period per week.

BIOLOGY HONORS

SC110YTDHO **1 Credit - STEM** **Grade 10**

Is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. Required for all 10th Grade students. There will be one lab period per week.

ANATOMY AND PHYSIOLOGY

SC310YTDGE **1 Credit - STEM** **Grades 11-12**

Is a course that investigates the structure and function of the human body. Topics covered will include the basic organization of the body, biochemical composition; major body systems and the impact of diseases on body system. **Prerequisite: Biology**

CHEMISTRY

SC201YTDGE **1 Credit - STEM** **Grades 11-12**

A semester course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course stresses chemical reactions, their occurrences, and the energy transfers associated with these reactions. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite: Must pass one year of non-life science and one year of Algebra I**

ASTRONOMY

SC305YTDGE **1 Credit - STEM** **Grades 11-12**

A semester course designed to introduce students to concepts related to ancient astronomers, cosmology, the life in space and the tools of the astronomer. In addition, asteroids, comets and meteorites will be studied, along with stars, galaxies, constellations, and the current NASA space program. **Prerequisite: Two years of science.**

ENVIRONMENTAL SCIENCE

SC102YTDGE **1 Credit - STEM** **Grades 11-12**

A semester course which combines basic concepts from earth and environmental science. Topics include a history of our planet through fossils, mineralogy, plate tectonics, and oceanography. Environmental studies includes investigating the quality of our air, water, soil and examining the biotic and abiotic influences on ecosystems and the various factors which aide in determining the quality of life on earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

ENVIRONMENTAL SCIENCE HONORS NRE 1000 - UCONN ECE

SC102YDECL **1 Credit - STEM** **Grades 11-12**

A semester course which combines basic concepts from earth and environmental science. Topics include a history of our planet through fossils, mineralogy, plate tectonics, and oceanography. Environmental studies includes investigating the quality of our air, water, soil and examining the biotic and abiotic influences on ecosystems and the various factors which aide in determining the quality of life on earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite: Successful completion of two year of high school science and approval of instructor. (3 college credits possible)**

CRIME SCENE INVESTIGATION

SC204YTDGE **1 Credit - STEM** **Grades 9 – 10**

This elective course introduces students to techniques used to gain information related to crimes. Course topics cover specific techniques for conducting a preliminary investigation combining practical experience and classroom study.

FORENSIC SCIENCE

SC203YTDGE **1 Credit - STEM** **Grades 11-12**

Is interdisciplinary course which includes the application of scientific knowledge to solve crimes and legal problems. Students will have an opportunity to delve into the history of forensic science and possible career opportunities. This course is taught in a multidisciplinary approach, which includes the sciences (life science, chemistry, physics, and earth science), mathematics, technology, language arts and social studies. **Prerequisite: Biology**

TOPICS IN CONTEMPORARY NUTRITION

1 Credit **Grades 9-12**

This hands-on interactive class will teach students how to use food labels, identify healthy snacks, evaluate the latest fad diets, and how to shop on a budget and/or in a food desert. Students will learn how to plan diets for athletes, as well as for people with diabetes, obesity and heart disease. The interaction between food and physical activity will be explored.

SOCIAL STUDIES

WORLD CIVILIZATION

SS101YTDGE **1 Credit - HUMANITIES** **Grade 9**

Explores the spectrum of World History from Neolithic times through World War I. Assured experiences focuses on the development of critical thinking skills, historical habits of mind, historical writing and reading historical texts.

WORLD CIVILIZATION Honors

SS101YTDHO **1 Credit - HUMANITIES** **Grade 9**

Is designed to prepare ninth grade students to achieve national and state standards so that they become knowledgeable citizens. Course content includes a comprehensive survey of World Civilization from the beginning of civilization through medieval times. Particular emphasis is placed on the classical civilizations in Asia, Africa, Europe and Latin America.

CIVICS

SS201STDGE **0.5 Credit - HUMANITIES** **Grade 10**

Provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

CIVICS Honors

SS201STDHO **0.5 Credit - HUMANITIES** **Grade 10**

Provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

PERSPECTIVES ON RACE

SS451STDGE **0.5 Credit - HUMANITIES** **Grades 10**

Exploration of historical & contemporary issues surrounding race relations in the U.S.; from the American slave trade through current events. Partnership with Oxford High School includes cultural exchange component in order to broaden students' perspectives on race. (partnered with Civics 10th grade)

PERSPECTIVES ON RACE - Honors

SS451STDHO **0.5 Credit - HUMANITIES** **Grades 10**

Exploration of historical & contemporary issues surrounding race relations in the U.S.; from the American slave trade through current events. Partnership with Oxford High School includes cultural exchange component in order to broaden students' perspectives on race. (partnered with Civics 10th grade)

US HISTORY

SS301YTDGE **1 Credit - HUMANITIES** **Grade 11**

Focuses on the development of America as a modern industrial nation and as a global power. Topics cover events from 1865 to the present. Students are guided in conducting historical research and in developing and defending historical interpretation.

US HISTORY – AP

SS301YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

Is a comprehensive, college level survey of United States history in which students gain a solid foundation in the social, political, economic, and intellectual forces that impact our culture. Each marking period, students are required to complete a long-term assignment involving extensive research, reading and writing. Students will be expected to take the AP exam in May, which may lead to college credit. **Prerequisites: World Civilization I, World Civilization II, Civics and recommendation of the previous social studies teacher.**

INTRO TO PSYCHOLOGY

SS401YTDGE **1 Credit - HUMANITIES** **Grade 9-12**

A comprehensive, college-level survey course 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 within psychology.

INTRO TO SOCIOLOGY

SS402YTDGE **1 Credit - HUMANITIES** **Grade 9-12**

Is an elective course for seniors that examines social structure. Concepts, terminology, and the techniques of Sociology are explained so that students can investigate problems that are relevant to young adults and society at large. **Prerequisites: World Civilization and United States History.**

PSYCHOLOGY - AP

SS401YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

Is a one-year comprehensive, college level survey course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are introduced to psychological facts, principles, and phenomena associated with each of the major sub-fields within psychology. Students will be expected to take the A.P. exam in May, which may lead to college credit.

AFRICAN AMERICAN STUDIES

SS422YTDGE **1 Credit - HUMANITIES** **Grade 9-12**

This semester course examines the culture and history of African-Americans throughout the history of our country and fosters an appreciation and understanding of the major struggles and triumphs of the African-American experience.

LATIN AMERICAN STUDIES

SS424YTDGE **1 Credit - HUMANITIES** **Grade 11-12**

Traces the history of Latin America from its origins and includes a survey of the economic, political, and social structures of modern Latin America. Regional and global issues will be examined through the study of Brazil, Cuba, Nicaragua, and other Latin American nations.

INTRODUCTION TO LAW

SS440YTDGE **1 credit - HUMANITIES** **Grade 9-12**

This is a semester course about the criminal justice process is examined in detail, focusing on the structure of the court system and how it responds to crime. Students will develop an understanding of the core elements of the criminal justice system including law enforcement, the courts, and corrections.

VISUAL ARTS

COMPUTER VISUAL ARTS I

VA221YTDGE **1 Credit** **Grades 10-12**

Is a study of the computer as a visual arts medium. Current computer art technology and its applications to fine art, commercial/industrial design, animation and multimedia presentation are areas of study.

PHOTOGRAPHY 1

VA201YTDGE **1 Credit** **Grades 10-12**

Is an introductory course in black and white photography with an emphasis on the techniques of camera operation, film processing, and print development. Digital photography and the use of computers to produce digital photos will be examined.

PHOTOGRAPHY 2

VA202YTDGE **1 Credit** **Grades 11-12**

Is a continuation of black and white photography using larger negatives and cameras with an emphasis on special effects in the darkroom and the use of the computer. The history of photography is also emphasized.

Prerequisites: Photography 1 and Teacher Recommendation.

INTRODUCTION TO CERAMICS

VA330STDGE **1 Credit** **Grades 9-10**

This course explores the uses of clay as a creative medium. Emphasis is placed on construction technique, the ceramic process and the elements and principles of design as related to clay.

CERAMICS 1

VA331YTDGE **1 Credit** **Grades 9-12**

Explores the uses of clay as a creative medium. Emphasis is placed on construction technique, the ceramic process and the elements and principles of design as related to clay. In addition, students are introduced to the potter's wheel and discover the role of ceramic art in various cultures and historical periods.

CERAMICS 2

VA332YTDGE **1 Credit** **Grades 10-12**

Is a continuation of clay exploration initiated in Ceramics 1. Emphasis is placed on developing advanced technical skills. Students develop their individual problem-solving skills and continue their exploration of clay in the cultural environment.

Prerequisite: Ceramics 1

INTRODUCTION TO STUDIO ARTS

VA310YTDGE **1 Credit** **Grades 9–10**

This course is an overview of the scope and sequence of the visual arts. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge.

STUDIO ARTS 1

VA311YTDGE **1 Credit** **Grades 9-12**

Is an overview of the scope and sequence of the visual arts. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge. The acquisition of the analytical and problem-solving skills needed to create and appreciate art will be stressed.

STUDIO ARTS 2

VA312YTDGE **1 Credit** **Grades 9-12**

Is a continuation of the study of the topics listed in Studio Arts 1. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge. The acquisition of the analytical and problem-solving skills needed to create and appreciate fine art will be stressed. **Prerequisite: Studio Arts 1**

MUSIC/ PERFORMING ARTS

INTRODUCTION TO PERFORMING ARTS

PA400YTDGE **1 Credit** **Grades 9 -10**

Students will increase their awareness, understanding, and appreciation of all aspects of theater and related performing arts. Students will learn the basic principles of acting and dance, theatre history and the work of master playwrights.

PERFORMING ARTS 1

PA401YTDGE **1 Credit** **Grade 10-12**

Students will continue to increase their awareness, understanding, and appreciation of all aspects of theater and related performing arts. Students will learn the basic principles of acting and dance, theatre history and the work of master playwrights.

CHOIR

PA131YTDGE **1 Credit** **Grades 9-12**

Is open to all students on a selective basis. Students must demonstrate a high degree of vocal proficiency and musicianship and the approval of the instructor. Since its major goal is the study and performance of choral masterpieces from various musical periods, students are given intensive training in the principles of vocal production, musicianship, interpretation, and the appreciation of music as it is related to musical style, literature, and history.

BEGINNER BAND

PA101YTDGE **1 Credit** **Grades 9-12**

An introduction to woodwind, brass and percussion instruments. Students will choose their focus instrument during the first week of school. Group and individual practice will be expected. No prerequisites

MODERN BAND

PA118YTDGE **1 Credit** **Grades 9-12**

Intro to Modern Band is an introductory course that utilizes popular music to introduce students to the guitar, bass, keyboard, and drum set, (among other instruments.) Students learn to perform music they know, to compose and to improvise. Group and individual practice will be expected. There is a performance requirement for this class. No prerequisites

ADVANCED BAND

PA116YTDGE **1 Credit** **Grades 10 -12**

This course allows interested students grades 10-12 to continue their development of techniques learned in concert band, modern band or piano. Prerequisite Jazz band or Piano I or Concert Band or Choir. **There is a performance requirement for this class**. **Prerequisites: Music 1 or Modern Band 09-12**

PHYSICAL/HEALTH EDUCATION

HEALTH

HE101YTDGE **1 Credit** **Grades 9-12**

Provides information to motivate students to protect, maintain and improve their health. Topics include: Substance Abuse, Nutrition, Mental/Emotional Health, Growth and Development, Disease Prevention, First Aid and Safety, Family Life, AIDS, Community Health and Self-Esteem. **Required for graduation.**

FULL YEAR PHYSICAL EDUCATION

PE100YTDGE **1 Credit** **Grades 9-12**

Introduces a variety of individual and team sports. Instructional emphasis will be on basic skills, rules, strategies and fitness. Values such as teamwork, sportsmanship and respect for differences will be enforced. **Required for graduation.**

WORLD LANGUAGE

SPANISH 1

WL101YTDGE **1 Credit - HUMANITIES** **Grades 9-11**

This is an introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

SPANISH 2

WL102YTDGE **1 Credit - HUMANITIES** **Grades 9-12**

This course is a continuation of Spanish 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal of this course is to prepare students for advanced study of the language and give them practical skills for travel to a Spanish-speaking country.

SPANISH 5 – AP

WL105YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

This is a college-level course designed to provide students the opportunity to achieve Spanish proficiency in the areas of: speaking, reading, writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures in critical ways. The goal of this course is to prepare students to achieve proficiency of native Spanish language speakers and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. It is expected that students will take the A.P. exam in May, which may lead to college credit.

SPANISH- UCONN ECE 3177

WL121YTDCL **1.0 Credit** **Grade 11-12**

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while 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. UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive University credit. College credits are transferable to many colleges and universities.

SPANISH FOR SPANISH SPEAKERS 1

WL111YTDGE **1 Credit - HUMANITIES** **Grades 9 - 12**

This course is designed to meet the needs of students of Spanish-American heritage who were born in the United States or who came to the United States at an early age and possess little or no proficiency in reading and writing in the Spanish language. The goal of the course is to study Spanish to be able to speak, listen, read and write. Students are also given a general perspective of geography and Hispanic culture through selected readings from Spanish and Spanish-American literary works.

BILINGUAL SERVICES

ESOL / NATIVE LANGUAGE SUPPORT - BEGINNER

EN010YBLGE **2 Credits - HUMANITIES** **Grades 9-12**

This course is for students who are in the beginning stage of English Language acquisition. Students will focus on developing Basic English vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will begin to use English in both social and academic settings and in culturally appropriate ways. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a double period daily and awards twenty points of credit in English towards graduation. The curriculum will align to English 9 and there will be staff collaboration.

ESOL / NATIVE LANGUAGE SUPPORT - INTERMEDIATE

EN011YBLGE **2 Credits - HUMANITIES** **Grades 9-12**

This course is for students in the intermediate stage of English Language acquisition. Students will focus on developing content based academic English language skills through vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will be able to use English in both social and academic settings and in culturally appropriate ways. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a double period daily and awards twenty points of credit in English towards graduation. The curriculum will align to English 10 and there will be staff collaboration.

ESOL / NATIVE LANGUAGE SUPPORT - ADVANCED

EN012YBLGE **1 Credit - HUMANITIES** **Grades 9-12**

This course is for students in the advanced stage of English Language acquisition. Students will focus on developing proficient content-based academic English language skills through critical speaking, reading, writing, and listening skills. By developing these skills, students will be able to fluently use English in academic settings. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a single period daily and awards ten points of credit in English towards graduation.

ESOL-LTSS (Language Transition Support Services)

EN013YBLGE **1 Credit - HUMANITIES** **Grades 9-12**

This course is for students who have completed Beginning, Intermediate, and Advanced ESOL yet require additional English Language instructional support. Students will receive Sheltered English instructional strategies to address all academic content area concepts. By developing these skills, students will use effective academic strategies in English content area courses to achieve success. This class meets for a single period daily and awards ten points of credit in English towards graduation.

SPECIALTY PROGRAMS / COURSES / EXTERNAL PARTNERSHIPS

REGIONAL CENTER FOR THE ARTS (RCA)

PA410YTDGE **2 Credits - HUMANITIES** **Grades 9-12**

Is a state-funded performing arts magnet program located at 23 Oakview Drive, Trumbull that provides Students with professional training in dance, music, and theatre. The program is open to students in grades 9-12 in the public schools of Bridgeport, Trumbull, Fairfield, Monroe, and Stratford. Classes meet Tuesday-Friday from 2:00-5:00 p.m. and transportation is provided by participating school districts. RCA looks for potential as well as developed talent; therefore, any interested student is encouraged to apply.

CONSTRUCTION CRAFT LABORERS

TE135YTDGE **2 Credits - STEM** **Grade 11-12 (full year)**

Our construction trade training focuses on jobsite skills, safety knowledge and progression to supervision. We offer career long learning that benefits Construction Craft Laborers, employers and owners. We offer training programs specific for building, heavy-highway & utilities, demolition/deconstruction, pipeline, masonry, environmental, and landscaping.

Activity-based participation and student-centered lessons use interactive techniques to empower workers to problem solve and work as a team. Hands-on training replicates the jobsite as workers perform job tasks in a safe and controlled setting. All trainees must demonstrate knowledge and proficiency in the classroom and hands-on activities. We assess both knowledge and skills so competency is demonstrated, ready to be applied on the job. All students will receive a comprehensive Professional Skills curriculum taught by certified instructors employed by The Justice Education Center, Inc.

CULINARY ARTS I

FS150YTDGE **1 Credit** **Grade 11-12 (1 semester)**

Presents sanitation, safety and maintenance challenges encountered in the food service industry. Investigates causes and prevention of food-borne illnesses and the importance of sanitation and safety in food service establishments. Students will demonstrate the highest standard of food Safety training by completing a nationally recognized ServSafe Certification offered through the National Restaurant Association. Students who pass the certification exam will receive the certificate. Student hands on training will take place at Cook & Grow Inc. located on 1040 Broad Street, Bridgeport. All students will receive a comprehensive Professional Skills curriculum taught by certified instructors employed by The Justice Education Center, Inc.

CULINARY ARTS II

FS151YTDGE **1 Credit** **Grade 11-12 (1 semester)**

This course is a continuation of Culinary Arts 1 to build knowledge and experience in this area. Student hands on training will take place at Cook & Grow Inc. located on 1040 Broad Street, Bridgeport. All students will receive a comprehensive Professional Skills curriculum taught by certified instructors employed by The Justice Education Center, Inc. **Prerequisite: Culinary Arts I**

ADDITIONAL COURSES BY ARRANGEMENT

COMMUNITY SERVICE

AD100STDGE **0.5 Credit** **Grades 11-12**

Is designed to encourage students to become contributing community members who recognize the importance of voluntary activity to help other members of the community. Credit may be earned only upon successful completion of 50 hours of unpaid, voluntary work in not-for-profit companies or governmental agencies, and 10 hours of classroom instruction.

SUCCESS ACADEMY

AD003YPLGE **No Credit** **Grade 12**

The Success Academy provides an opportunity for students to get back on a successful track towards graduation. While enrolled in the Success Academy students will receive individualized curricula designed to meet the academic needs for each student. Through the use of technology students will be able to work at their own pace at school and at home with the support and guidance of a classroom teacher and pupil support staff member. This virtual learning tool will allow students to recover lost credit and make progress towards graduation. Regular communication will take place between staff and parents regarding the progress of the student.

BUSINESS INTERNSHIP-SEMESTER

BE210STDGE **0.5 Credit** **Grades 11-12**

Is a .5 credit course offering an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions.

Prerequisites: Approval of Administration

BUSINESS INTERNSHIP-YEAR

BE211YTDGE **1 Credit** **Grades 11-12**

Is an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions.

Prerequisites: Approval of Administration

Housatonic Community College (HCC) Advanced Manufacturing Courses offered at Bassick High School

The Advanced Manufacturing: Machine Technology I Certificate is designed to provide students with the advanced manufacturing skills for those seeking employment in machine technology and CNC manufacturing environments. Students develop advanced manufacturing skills in mathematics, blueprint reading II, principles of quality control, lathe II, milling II, and CNC II. Students spend approximately half their time in classroom activities and half in hands-on activities in the H.C.C.'s new Advanced Manufacturing Center. Students will attend classes on HCC's Campus 5 days a week from 12:00-2:30pm. Qualified students will complete an application and will adhere to the expectations of a BHS and HCC student. Students have the potential to earn high school and college credit with successful completion of these courses.

HCC MANUFACTURING MATH 1: MFG-E5008

MA600SDECL **0.5 Credit - STEM** **Grades 11 -12**

Offers skills needed to read engineering drawings, production charts and graphs, and inspecting parts and fits to tolerances. Topics include whole numbers, fractions, decimals, measurement, percentages, fundamentals of SI metric measurement, and applied mathematics in a manufacturing environment**. Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

HCC METROLOGY: MFG-E120

TE600SDECL **0.5 Credit - STEM** **Grades 11-12**

Course covers methods to test instrument calibration using precision artifacts to ensure gages work to calibration. Content includes: introduction to measurement; precision hand tools and gaging (micrometers, calipers, indicators and gages); measurement instruments; surface and form instruments; optical measurement instruments; and methods for analyzing the repeatability and reproducibility of measurement instruments. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

HCC MFG BENCHWORK: MFG-E166

TE163SDECL **0.5 Credit - STEM** **Grades 11-12**

A basic course in the fundamentals, principles, practices, and tools used in semi-precision and precision layout and in the various tools, methods, and procedures for common machine shop benchwork. Topics will include measurement systems, layout principles, hand tools, and power tools. **Taken on Campus-Housatonic Community College. Passing Grades may earn College credit. Prerequisite: Satisfactory test scores of C or better in Reading, Writing and Math will be required. Students will complete the following assessments administered by HCC staff: Aptitude Test, Hands on Skills Assessment, and Math Assessment.**

HCC CNC 1 MFG-E168

TE618SDECL **0.5 Credit - STEM** **Grades 11-12**

First course in Computer Numerical Controlled programming. This is the study of CNC programming for Vertical Machining Center and the CNC Lathe. Topics include introduction to Cartesian coordinate system, programming parts, canned drilling cycles, circular interpolation, cutter compensation, setup and tooling. This will be taken in the Fall and Spring semester. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Prerequisite: Satisfactory test scores of C or better in Reading, Writing and Math will be required. Students will complete the following assessments administered by HCC staff: Aptitude Test, Hands on Skills Assessment, and Math Assessment.**

HCC BLUEPRINT READING 1: MFG-E124

TE601SDECL **0.5 Credit - STEM** **Grades 11-12**

First course in blueprint reading. The study of orthographic projection. Topics include lines and their uses, auxiliary views, sectional views, basic and special dimensioning, dimensioning practices for holes, chamfers, angle, tapers, keyways diameters and radii. Also, geometric tolerance and dimensioning is covered. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

HCC CNC LAB: MFT-5104

0.5 Credit – STEM **Grades 11-12**

This is the hands-on machine lab component of CNC 1 (MFG E168). First course in Computer Numerical Controlled programming. This is the study of CNC programming for Vertical Machining Center and the CNC Lathe. Topics include introduction to Cartesian coordinate system, programming parts, canned drilling cycles, circular interpolation, cutter compensation, setup and tooling. This will be taken in the Fall and Spring semester. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

HCC INTRO TO MACHINE TECHNOLOGY: MFG E150

0.5 Credit-STEM **Grades 11-12**

Introduction to Machine Technology introduces the student to the fundamentals of Metal Machining Technology. The student is introduced to the basic metal machining equipment including Lathe, Miller, Drill Press, Saw, and Grinding Wheels. Students will perform basic lathe operations, which will consist of facing, center-drilling, chuck turning, turning between centers, boring, grooving, tapers, knurling, and single point threading. Students will identify the major parts of the vertical & horizontal mill, align a vise, use an indicator, edge finder, and boring head, determine speeds and feeds, perform simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes. This will be taken in the Fall and Spring semester**. Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

HCC MACHINE PROJECTS LAB: MFT-5105

0.5 Credit – STEM **Grades 11-12**

This is the hands-on machine lab component of Introduction to Machine Technology (MFG E150). Introduction to Machine Technology introduces the student to the fundamentals of Metal Machining Technology. The student is introduced to the basic metal machining equipment including Lathe, Miller, Drill Press, Saw, and Grinding Wheels. Students will perform basic lathe operations, which will consist of facing, center-drilling, chuck turning, turning between centers, boring, grooving, tapers, knurling, and single point threading. Students will identify the major parts of the vertical & horizontal mill, align a vise, use an indicator, edge finder, and boring head, determine speeds and feeds, perform simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

HCC SOLIDWORKS: MFG E110

0.5 Credit – STEM **Grades 11-12**

SolidWorks design focuses on parametric modeling while introducing the student to the paperless computer-based design process utilizing the modern parametric 3-D design software SolidWorks. The course reviews the following topics: design process, design engineering, assembly modeling, mechanism analysis, rapid prototyping, team design, geometric dimensioning and tolerancing, and the analysis of tolerance stack-ups. Students will participate in individual & team design projects. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

Bridgeport Military Academy
160 Iranistan Avenue
Bridgeport, CT 06604
(203) 275-3961
Fax: (203) 337-0117

Mission Statement

To instruct and inspire students to develop a strong commitment to "service to others above self" within their school, family & community, while preparing academically for leadership roles & professional careers throughout the world.

MOTTO

Do the right thing, because it is the right thing to do!

Administration

Diana Soares, Principal

Guidance

Ca'Tisha Howard

The Bridgeport Military Academy was designed as a high school to prepare student cadets who are interested in pursuing careers focusing on being a first responder. These various areas include Fire Science, Homeland Security, Police Science, Emergency Medical, and Military Service. Through partnerships with the various public safety departments, cadets are provided with real world, hands-on opportunities to get certified in such areas as CPR, First Aid, FEMA courses, and other high level certifications by the time they graduate. Physical training, leadership skills, community volunteer opportunities and internship programs connected to these fields are part of the requirements for the cadets.

Basic Orientation Week – All cadets are required to attend a week long session at (TO BE DETERMINED). Cadets receive training in physical agility through confidence courses, leadership skills, and teamwork. The week concludes with a formal military demonstration on the parade grounds by the cadets in their platoons for their parents and guardians.

MILITARY SPECIFIC COURSES

CAPSTONE I

ID102STDGE 0.5 Credit - HUMANITIES Grade 11

The Capstone Program is a two course program designed for 11th grade students to apply a concentrated thematic, interdisciplinary approach to education in public safety and the military. The Capstone Program will consist of a long-term investigative project that culminates in a final product, presentation, or performance. Students will research a problem that has been determined over time that may exist in a product or system and then create a proposal on that thematic topic. Students will apply all skills acquired in their high school career to present a feasible solution/action plan for a real world problem.

CAPSTONE II

ID103STDGE 0.5 Credit - HUMANITIES Grade 12

The Capstone Program is a two course program designed for 12th grade students to apply a concentrated thematic, interdisciplinary approach to education in public safety and the military. The Capstone Program will consist of a long-term investigative project that culminates in a final product, presentation, or performance. Successful completion will be determined by their project outcome, a constructed project depicting the conceptual solution and a presentation to a selected audience.

NAVAL SCIENCE CLASSES

Performance requirements of these courses are in accordance with current Chief of Naval Education Training Instruction, NAVEDTRA 37128 and the curriculum for NJROTC. Successful completion of 2 years will qualify the student for promotion to E-2 in the Army/Navy while 3 years of credit will qualify the student for advanced placement in a college ROTC program promotion to the paygrade of E-3 in the Army/Navy/Air Force/Coast Guard or the paygrade of E-2 in the Marine Corps.

NAVAL SCIENCE I CADET FIELD MANUAL

ML121YTDGE 1 Credit HUMANITIES Grade 9

The purpose of this course is to combine all information on military drill and ceremonies, uniform regulations, physical fitness, orienteering, principles of health, first aid, survival, leadership, and communications.

NAVAL SCIENCE I INTRODUCTION TO NJROTC

ML122YTDGE 1 Credit- HUMANITIES Grade 9

The purpose of this course is to help students understand the missions, goals, and opportunities available as members of the NJROTC program. This course will also introduce students to the basic principles of leadership as well as many opportunities for practical experience in the NJROTC program preparing them for leadership roles in school and upon graduation. Students will gain an understanding of our nation, our values, traditions, heritage, respect for our laws, as well as becoming involved, responsible citizens.

NAVAL SCIENCE II MARITIME HISTORY

ML123YTDGE 1 Credit HUMANITIES Grade 10__

The purpose of this course is to build on the general introduction provided in Naval Science I, to further develop the traits of citizenship and leadership in students, introduce cadets to the maritime history of the world and the United States from the American Revolution through the present time to include Bosnia, the demise of the Soviet Union, and the September 11, 2001 terrorists' attack upon the United States.

NAVAL SCIENCE II NAUTICAL SCIENCE

ML124YTDGE 1 Credit STEM Grade 10

The purpose of this course is to introduce the various nautical sciences through classroom work and some laboratory time. The development of core skills that students should master is integrated throughout the course and includes basic geography, oceanography, astronomy, physical science, meteorology, and weather.

NAVAL SCIENCE III NAVAL KNOWLEDGE

ML125YTDGE 1 Credit HUMANITIES Grade 11-12

The purpose of this course is to further the foundation in citizenship and leadership established in Naval Science One and Two and to expound upon the virtues of the United States citizenship with knowledge of uses of the world's waterways through the viewpoint of National power and International law.

NAVAL SCIENCE III NAVAL ORIENTATION AND SKILLS

ML126YTDGE 1 Credit HUMANITIES Grade 11-12

The purpose of this course is to further the foundation in citizenship and leadership established in Naval Science One and Two and to provide classroom and practical application in Naval and Ship Organization. Additionally, the course will build upon the basics of nautical science and teach fundamentals of land and nautical navigation.

NAVAL SCIENCE IV NAVAL LEADERSHIP AND ETHICS

ML127YTDGE 1 Credit HUMANITIES Grade 12

The purpose of this course is to take a more in-depth look at what leadership is and to learn how to maximize leadership abilities. More importantly, this course will assist the student in adding the polish necessary to be a truly effective leader in the NJROTC unit, school, community, and in life.

NAVAL SCIENCE IV EFFECTIVE COMMUNICATIONS

ML128YTDGE 1 Credit HUMANITIES Grade 12

The purpose of this course is to teach the students the techniques of effective communication, which is one of the most important skills that a good leader must develop in order to be successful. Basics of financial literacy, interviewing skills, fundamentals of automotive understanding, and essential reading of utility bills will also be provided.

ENGLISH

HUMANITIES LAB I

EN001YTDGE 1 Credit- HUMANITIES Grade 9-10

In English 9 and 10, the focus is primarily on fictional literature and fictional writing tasks – for example, argumentative or explanatory writing tasks that require students to conduct some critical analysis of a fictional text they have been reading in class. Humanities Lab, on the other hand, focuses on nonfiction texts and research-based writing tasks. In this course, students will participate in searching for and writing about current topics/articles on a daily basis. Students will further these research skills in the six units for this course which will teach them how to conduct credible research on topics and use that research to write various types of essays. By the end of this course, students will have an in depth understanding of how to search for credible information on the internet, use that information to write an academic paper, and share that information in a professional and engaging manner. This course is recommended for those students needing additional support in reading and writing.

ENGLISH 9

EN101YTDGE 1 Credit - HUMANITIES Grade 9

English 9 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. Students study literature, literary nonfiction, and composition. The major focus is on engaging students in a close, critical analysis of the qualitative features of complex texts ranging from short stories, essays, biographies, autobiographies, memoirs, novel, poetry, speeches, and plays. While all literary genres are included, emphasis is on the short story and engaging in discussion and written response to text dependent questions. The composition portion of this course concentrates on three forms of writing: narrative, informative/explanatory, and argumentative that includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with emphasis on writing over shorter time frames such as a single sitting or over a day or two from sources. In conjunction with reading and writing, students develop academic vocabulary, conventions of writing and speaking and listening skills. A short research project and an oral presentation with media are required.

ENGLISH 10

EN201YTDGE 1 Credit - HUMANITIES Grade 10

English 10 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. This course introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with a balance between writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required.

ENGLISH 10 HONORS

EN201YTDHO 1 Credit - HUMANITIES Grade 10

This English 10 Honors course serves as preparation for Advanced Placement English. This course encompasses the objectives and requirements of the regular English 10 curriculum and it introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions and requires that the honor student complete a significant amount of independent reading and writing beyond that required in English 10. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes a greater emphasis on writing routinely over extended timeframes for research, reflection, and revision from two or more sources and includes writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, knowledge of literary devices and figurative language, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required. Prerequisite: Teacher recommendation and an 85+ in English or 90+ in English 9 Honors.

ENGLISH 11

EN301YTDGE 1 Credit - HUMANITIES Grade 11

English 11 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Students will compose narrative, informative/explanatory, and argumentative texts and will analyze, evaluate, and integrate information from sources to support their composition. Composition includes writing routinely over extended timeframes for research, reflection, and revision from three or more sources with a balance between writing over shorter time frames such as a single sitting or over a day or two. Students will publish essays, book reviews, an interdisciplinary American literature project, resume, application, and cover letter; college essay, formal research paper, an autobiographical sketch, and a media project. Students read literary nonfiction, autobiographies, biographies, and novels, most selected for literary merit and their applicability to self-discovery and personal responsibility. The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills. Oral language and computer skills are an integral component of English 11 and an oral research presentation with media is required.

ENGLISH 11 – AP LANGUAGE AND COMPOSITION

EN301YTDAP 1 Credit - HUMANITIES Grade 11

The AP English Language and Composition course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects in nonfiction texts—including images as forms of text— from a range of disciplines and historical periods. The AP English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum. Prerequisites: There are no prerequisite courses for AP English Language and Composition.

Students should be able to read and comprehend college-level texts and write grammatically correct, complete sentences.

ENGLISH 12

EN401YTDGE 1 Credit - HUMANITIES Grade 12

English 12 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Composition at the beginning of the course includes the college essay, applications, and resumes. Additionally, students will compose essays, poems, a formal speech, a formal research paper, editorials, letters to editor, critiques, media projects using a variety of text types (i.e., narrative, informative/explanatory, and argumentative) and for a variety of purposes. Students will analyze, evaluate, and integrate information from multiple sources to support their composition and students will also write for shorter time frames such as a single sitting or over a day or two. Students will read literary nonfiction, plays, short stories, novels, and other works. This course focuses on literary traditions among African-Americans and places those traditions in their historical and world context as well as other pieces of literature from around the world, most noted for literary merit (e.g., Letter from Birmingham Jail, Don Quixote, and Shakespeare). The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills to further education, college, or career. Oral language and computer skills are an integral component of English 12 and an oral research presentation with media is required.

ENGLISH 12 – AP LITERATURE AND COMPOSITION

EN401YTDAP 1 Credit - HUMANITIES Grade 12

The AP English Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. The AP English Literature and Composition course aligns to an introductory college-level literature and writing curriculum. There are no prerequisite courses for AP English Literature and Composition. Students should be able to read and comprehend college-level texts and write grammatically correct, complete sentences.

COMMUNICATIONS FOR PUBLIC SAFETY

EN315YTDGE 1 Credit - HUMANITIES Grade 11-12

Communications for Public Safety is an English elective course available to 11th and 12th grade students in the First Responder Pathway. This course requires students to recognize the necessary communication skills for becoming a successful member of the first responder community. Students hone these skills through Project-Based Learning (PBL) activities that provide them with the opportunity to learn, practice, and display their understanding of the kind of effective communication skills necessary in public service careers. This is a hands-on course that requires students to engage in frequent collaborative learning activities. By the end

of this course, students will have the knowledge of and experience in utilizing effective communication

MATHEMATICS

STEM LAB I
MA001YTDGE 1 Credit Grade 9- 10
STEM Lab I is an elective course taken concurrently with Algebra I or Physical Science and is designed to extend time and learning opportunities through intervention support or enrichment. The class will review prerequisite Algebra I skills required to master the concepts presented in content are classes.

ALGEBRA I
MA101YTDGE 1 Credit - STEM Grade 9
Involves applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents and performing operations with polynomials. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections and communicating mathematically.

ALGEBRA II
MA202YTDGE 1 Credit - STEM Grades 11-12
Seeks to develop a higher degree of skill and accuracy in algebraic techniques and understanding of the structure of mathematical systems. Topics include a review and an extension of many concepts developed in Algebra 1, such as solving and graphing linear and quadratic equations. Other topics incorporated in this course include: solving and graphing exponential, logarithmic and rational functions and writing and identifying properties of conic sections. Emphasis is placed on problem solving using graphing calculator and computer activities, mathematical reasoning and connections. **Prerequisites: Algebra I and Geometry.**

ALGEBRA II HONORS
MA202YTDHO 1 Credit - STEM Grades 10-12
Expands on the topics of Algebra I Honors and provides further development of the concept of nonlinear functions. The expanded topics include quadratic, exponential, rational, and polynomial functions, sequences and series and the complex numbers system. Emphasis will be placed on the theory and practical applications of Algebra through the use of graphing calculators and related computer software. **Prerequisite: Algebra I and Geometry and Teacher Recommendation.**

GEOMETRY
MA201YTDGE 1 Credit - STEM Grade 9-10
Includes the concepts of geometric figures, parallelism, congruency, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and computer software; mathematical connections; critical thinking skills; reasoning; and communicating

mathematically. Hands-on activities will also be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts. **Prerequisite: Algebra I**

GEOMETRY HONORS
MA201YTDHO 1 Credit - STEM Grades -10
Emphasizes the further development of skills, techniques and connections of geometric concepts. Topics include in-depth study of the properties and classification of triangles and polygons, similarity and congruency, transformations, properties of circles including arcs, chords and tangents, trigonometry and deductive reasoning and proof. Hands-on activities will be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts. **Prerequisite: Algebra I Teacher Recommendation.**

PROBABILITY & STATISTICS
MA301YTDGE 1 Credit - STEM Grades 11-12
Introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will work with statistical measures of central tendency and spread and methods of sampling and experimentation. Students will use multiple representations to present data, including written descriptions, numerical statistics, formulas and graphs. **Prerequisite: Algebra I.**

PRE-CALCULUS
MA400YTDGE 1 Credit - STEM Grades 11-12
Includes the study of relations and functions, exponential and logarithmic functions, Trigonometry and triangles, Trigonometric functions, sequences and series, and data analysis. The purpose of this course is to study functions and develop the skills necessary for the study of Calculus. **Prerequisite: Algebra II**

CALCULUS I
MA401YTDGE 1 Credit - STEM Grades 11-12
Is intended for students who have a thorough knowledge of college preparatory mathematics: Algebra, Geometry, Trigonometry and Analytical Geometry or Pre-Calculus. Topics include polynomial functions, trigonometric functions, exponential and logarithmic functions, the derivative and its applications, integration and its applications and methods, and the definite integral and its applications. **Prerequisite: Pre-Calculus and Teacher Recommendation.**

SCIENCE

PHYSICAL SCIENCE
SC101YTDGE 1 Credit - STEM Grade 9
Introduction to the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth sciences. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

ENVIRONMENTAL SCIENCE

SC102YTDGE 1 Credit - STEM Grades 11-12

This course combines basic concepts from earth and environmental science. Topics include a history of our planet through fossils, mineralogy, plate tectonics, and oceanography. Environmental studies includes investigating the quality of our air, water, soil and examining the biotic and abiotic influences on ecosystems and the various factors which aide in determining the quality of life on earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

ENVIRONMENTAL SCIENCE – AP / ENVIRONMENTAL SCIENCE

SC102YTDAP/SC102YDECL 1 Credit - STEM Grades 10-12

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. Prerequisites: Students should have completed two years of high school laboratory science—one year of life science and one year of physical science (e.g., a year of biology and a year of chemistry). Due to the quantitative analysis required in the course, students should also have taken at least one year of algebra. Also desirable (but not necessary) is a course in earth science. Lab Requirement: Although there are no specific AP Environmental Science labs or field investigations required for the course, it is required that students have the opportunity to spend a minimum of 25% of instructional time engaged in hands-on, inquiry-based laboratory and/or fieldwork investigations.

BIOLOGY

SC110YTDGE 1 Credit - STEM Grade 10

Is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. Required of all Grade 10 students. There will be one lab period per week.

BIOLOGY HONORS

SC110YTDHO 1 Credit - STEM Grade 10

This introductory honors course of Biology is a yearlong survey of such topics as cellular biology, biochemistry, taxonomy, evolution, human body systems, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas. CAPT preparation is incorporated into the design of this course.

CHEMISTRY

SC201YTDGE 1 Credit - STEM Grades 11-12

This course is designed to provide students with the fundamental laws and concepts of our physical world as evidenced by chemical change. This course stresses chemical reactions, their occurrences, and the energy transfers associated with these reactions. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. The course utilizes the school district's alignment with the *Next Generation Science Standards* as adopted by the State of Connecticut on November 4,

2015. **Prerequisite: Must pass one-tier I science and one year of Algebra I with a grade no less than a "C."**

CHEMISTRY - AP

SC201YTDAP 1 Credit - STEM Grades 11-12

The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore content such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Prerequisites: Students should have successfully completed a general high school chemistry course and Algebra II. Lab Requirement: This course requires that 25 percent of instructional time engages students in lab investigations. This includes a minimum of 16 hands-on labs (at least six of which are inquiry-based). It is recommended that students keep a lab notebook throughout.

CIVIL AIR PATROL I

SC430YTDGE 1 Credit - STEM Grades 9-12

Civil Air Patrol is an elective course teaching students leadership, aerospace education, survival training, physical fitness, and ethical decision making. The CAP performs three missions for America, Cadet Programs, Aerospace Education, and Emergency Services which align perfectly with the pathways of BMA. Opportunities are available for cadets to learn how to fly airplanes (free of charge), participate in model rocketry (free of charge), and attend activities both domestically and internationally, during the school year, winters, and summers, with proper training and commitment. Students in the course must complete an application to be a volunteer cadet with the Civil Air Patrol unit at BMA, pay the annual fee of $36.00, and participate in activities of their choosing. Students advance in rank within the Civil Air Patrol based on their level of participation. Students in BMA's Junior Naval Program can promote twice as fast as other cadets throughout the world.

CIVIL AIR PATROL II

SC432YTDGE 1 Credit - STEM Grades 9-12

Civil Air Patrol is an elective course teaching students leadership, aerospace education, survival training, physical fitness, and ethical decision making. The CAP performs three missions for America, Cadet Programs, Aerospace Education, and Emergency Services which align perfectly with the pathways of BMA. Opportunities are available for cadets to learn how to fly airplanes (free of charge), participate in model rocketry (free of charge), and attend activities both domestically and internationally, during the school year, winters, and summers, with proper training and commitment. Students in the course must complete an application to be a volunteer cadet with the Civil Air Patrol unit at BMA, pay the annual fee of $36.00, and participate in activities of their choosing. Students advance in rank within the Civil Air Patrol based on their level of participation. Students in BMA's Junior Naval Program can promote twice as fast as other cadets throughout the world. This course is offered in the spring semester and open to students who have taken Civil Air Patrol 1 and wish to continue leadership and technical training or to students who are new to Civil Air Patrol and will be introduced to Civil Air Patrol.

DISASTER SCIENCE

SC207YTDGE 1 Credit - STEM Grades 11-12

This course is designed for students seeking a career in understanding the scientific aspects of a fire and the evolution of epidemics and infectious diseases. The fire component of the course will use four major fire disasters to explain and identify basic fire chemistry and physics. This course will also identify different characteristics of fire materials, exploring fire protection systems, basic fire-control procedures and flammable liquids. The epidemics and infectious disease portion will focus on exploring major epidemics that have affected the world and how these epidemics changed the understanding of how scientists understand modern epidemiology. This course is designed to be taken with Disaster History. Prerequisites: **Passed physical science and biology with a "C" or higher to enroll.**

INTEGRATED FIRE SCIENCE

SC218YTDGE 1 Credit - STEM Grades 11-12

This course provides students with an overview of skills necessary for entry-level employment in a fire science career. Students will learn basic firefighter theory and skills. Topics covered will include: fire science, leadership, organization, rules and regulations, firefighter safety, characteristics and behavior of fires, and fire prevention and control. Students will also learn fire equipment use, safety, maintenance, hazardous materials response techniques, incident command principles, and search and rescue techniques. This course will expose students to skills that they will be taught in a fire academy. Much of the course includes outdoors hands-on practical work.

FORENSIC SCIENCE I

SC203YTDGE 1 Credit - STEM Grades 11-12

Interdisciplinary course which includes the application of scientific knowledge to solve crimes and legal problems. Students will have an opportunity to delve into the history of forensic science and possible career opportunities. This course is taught in a multidisciplinary approach, which includes the sciences (life science, chemistry, physics, and earth science), mathematics, technology, language arts and social studies. **Prerequisite: Biology**.

FORENSIC SCIENCE II

SC300YTDGE 1 Credit - STEM Grade 12

This course is designed to provide students with the basic theoretical and philosophical understanding of the investigatory process as well as fundamental investigation techniques such as crime scene analysis, collection, preservation, and testing of evidence, modus operandi, use of technology, types of evidence, and the science of criminalistics. Analysis of problems encountered in interviewing, interrogating, evidence collection, and admissibility will be examines. Application of investigation theories to the administration of justice will also be developed. Laboratory course. **Prerequisite: Forensic Science I.**

OCEANOGRAPHY

SC338YTDGE 1 Credit - STEM Grade 12

Oceanography will explore geological, physical, chemical and biological processes of the world's oceans. Students will focus on environmental issues facing oceans today, including global climate destabilization, the impact of population growth on costal environments, marine pollution, and the state of marine fisheries. **Prerequisite: Biology**

EMT

SC130YTDGE 1 Credit - STEM Grades 11-12

This prehospital training course provides lectures and skills practice required for entry level practitioners to train for the management of medical and trauma patients at the basic life support level. Students must take this class for 2 semesters to meet state requirements.

EMS SCIENCE

SC132YTDGE 1 Credit - STEM Grades 11-12

EMS Science is recommended (but not a prerequisite) for students wishing to enroll in the EMT Class. It serves as the fundamental baseline coursework for Emergency Medical Services. The class is also for students who have an interest in the field of Emergency Services but aren't sure that they want to commit to an EMT Class. Topics covered are medical and trauma emergencies as well as scene safety, anatomy and physiology and pharmacology. Students will also gain valuable clinical skills.

SOCIAL STUDIES

WORLD CIVILIZATION

SS101YTDGE 1 Credit - HUMANITIES Grade 9

Explores the spectrum of World History from Neolithic times through World War I. Assured experiences focus on the development of critical thinking skills, historical habits of mind, historical writing and reading historical texts.

CIVICS

SS201STDGE 0.5 Credit - HUMANITIES Grade 10

Provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

CIVICS HONORS

SS201STDHO 0.5 Credit - HUMANITIES Grade 10

An honors level course that provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

US HISTORY

SS301YTDGE 1 Credit - HUMANITIES Grade 11

Focuses on the development of America as a modern industrial nation and as a global power. Topics cover events from
1865 to the present. Students are guided in conducting historical research and in developing and defending historical interpretation.

US HISTORY – AP

SS301YTDAP 1 Credit - HUMANITIES Grades 11-12

In AP U.S. History, students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change. The course also provides eight themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; work, exchange, and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures. AP U.S. History is equivalent to a two-semester introductory college course in U.S. history. Prerequisites: There are no prerequisites for AP U.S. History. Students should be able to read a college-level textbook and write grammatically correct, complete sentences.

AFRICAN AMERICAN STUDIES

SS422STDGE 0.5 Credit - HUMANITIES Grades 10-12

The African American Studies course in the Bridgeport Public School system is designed to develop an understanding of the causes, character, and consequences of the African American experience and its influence on the world, the United States, and the African American community. Beginning with a historical, geographical, social, political, economic, and cultural understanding of the African continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the African and African American experiences.

LATIN AMERICAN STUDIES

SS424STDGE 0.5 Credit - HUMANITIES Grades 10-12

The Latin American Studies course in the Bridgeport Public School System is designed to explore the Latin American experience from the pre-colonial period to contemporary 21st Century America. Developing an understanding of historical, geographical, social, political, economic, and cultural understanding of the Central and South American continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the Latin America experiences.

PERSPECTIVES ON RACE

SS451STDGE 0.5 Credit - HUMANITIES Grades 10-12

The Perspectives on Race, Ethnicity, and Religion, in the Bridgeport Public School System is an introductory anthology that examines the history, current issues and dynamics of select minority groups in the United States. While other books on these topics usually confine their coverage to African Americans, Hispanics, Asians, Pacific Islanders, and American Indians, this work also looks at the Jewish and Muslim Americans. Another unique feature of this book is that it puts the study of diversity and identity politics in a larger context, thus providing students with a broader perspective on these issues.

DISASTER HISTORY

SS454YTDGE 1 Credit - HUMANITIES Grades 11-12

The first half of Disaster History explores the historical aspects of disastrous fires of the 20^{th}-21^{st} century. Students will study how fire is perceived and used by society, how specific fires impacted our understanding of fire causes and the development of fire safety. In the second half of the course, students will study the evolution of epidemics and infectious disease and how major epidemics have affected the world and changed epidemiologists understanding of disease. The course concludes with a

zombie pandemic drill. Disaster History must be taken concurrently with Disaster Science. Prerequisite: Passed world history with a C or higher to enroll.

CRIMINAL JUSTICE

SS443YTDGE 1 Credit - HUMANITIES Grades 11-12

Introduction to the criminal justice system including agencies, processes and an analysis of the roles and problems of the criminal justice system in a democratic society. It will also include an examination of careers in policing.

PSYCHOLOGY FOR LAW ENFORCEMENT

SS400YTDGE 1 Credit - HUMANITIES Grades 11-12

Psychology for Law Enforcement is an introduction to the study of the human mind for the law enforcement pathway. The course focuses on topics relevant to understanding how thought processes and behaviors affect both criminals and crime scene analysis. Students will also explore psychology in connection to the legal system and how trials can be affected by bias and human error.

HOMELAND SECURITY: FOUNDATIONS OF EMERGENCY MANAGEMENT

SS456STDGE 0.5 Credit - HUMANITIES Grades 12

Students will explore the role and response of government through Homeland Security. Topics will include: emergency management responses to natural disasters, food contamination and cybersecurity threats. Students will be qualified through FEMA to participate in Community Emergency Response Teams.

HOMELAND SECURITY: FOUNDATIONS IN INTELLIGENCE

SS457STDGE 0.5 Credit - HUMANITIES Grades 12

Students will analyze the government process and explore intelligence collection methodologies, tasking processes, and analysis practices by comparing and contrasting the use of intelligence in homeland security. It uses a historical case study approach, analyzing both past and contemporary homeland security issues from an intelligence perspective. This course also analyzes the evolving relationship between intelligence and homeland security/homeland defense strategy from the beginning of WWI to the present. It includes an end-of-course research paper in which students will explore the US National Security options to deal with 21st Century homeland security issues.

PHYSICAL/HEALTH EDUCATION

HEALTH

HE101STDGE 0.5 Credit Grades 9-12

Provides information to motivate students to protect, maintain and improve their health. Topics include: Substance Abuse, Nutrition, Mental/Emotional Health, Growth and Development, Disease Prevention, First Aid and Safety, Family Life, AIDS, Community Health and Self-Esteem. Required for graduation.

HEALTH

HE101YTDGE 1 Credit Grades 9-12

Provides information to motivate students to protect, maintain and improve their health. Topics include: Substance Abuse, Nutrition, Mental/Emotional Health, Growth and Development, Disease

Prevention, First Aid and Safety, Family Life, AIDS, Community Health and Self-Esteem. Required for graduation.

FULL YEAR PHYSICAL EDUCATION

PE100YTDGE 1 Credit Grades 9-12

Introduces a variety of individual and team sports. Instructional emphasis will be on basic skills, rules, strategies and fitness. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION I

PE101STDGE 0.5 Credit Grades 9-12

Introduces a variety of individual and team sports. Instructional emphasis will be on basic skills, rules, strategies and fitness. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION II

PE102STDGE 0.5 Credit Grades 10-12

10th-12th grade students will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced. Prerequisite: P.E. I

PHYSICAL EDUCATION III

PE103STDGE 0.5 Credit Grades 11-12

This is an advanced physical fitness course where students will be taking a physical fitness pre-assesement at the beginning of the course , midyear assessment in the middle of the course and end of year assessment at the end of the course. Emphasis is on developing cadets strength, endurance and flexibility thus enabling them to pass military fitness tests. Cadets will be expected to participate in a rigorous, daily military fitness program (30 day Military fit program and 30 day military fit plus program) enhancing their strength, endurance and flexibility) This course is recommended for cadets who plan on joining the armed forces, fire, police or EMT after graduation.

WORLD LANGUAGES

SPANISH I

WL101YTDGE 1 Credit - HUMANITIES Grades 9-11

This is an introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish-speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

SPANISH II

WL102YTDGE 1 Credit - HUMANITIES Grades 9- 12

This course is a continuation of Spanish I and builds on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal

of this course is prepare students for advanced study of the language and give them practical skills for travel to a Spanish-speaking country.

SPANISH III
WL103YTDGE 1 Credit - HUMANITIES Grades 10-12
This course is a continuation of Spanish II and increases the student's knowledge of Spanish culture throughout the world. Students will understand more complex syntax in reading and writing in Spanish. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills.

SPANISH 5 - AP
WL105YTDAP 1 Credit – HUMANITIES Grades 11-12
This is a college-level course designed to provide students the opportunity to achieve Spanish proficiency in the areas of: speaking, reading, writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures in critical ways. The goal of this course is to prepare students to achieve proficiency of native Spanish language speakers and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. It is expected that students will take the A.P. exam in May, which may lead to college credit. Prerequisite: Successful completion of Spanish 3 or placement approval by the World Language Coordinator.

BUSINESS CAREER AND TECHNICAL EDUCATION

COLLEGE AND CAREER READINESS
BE208YTDGE 1 Credit-STEM Grade 12

Course is designed to focus increasing post-secondary awareness and preparedness for 12th grade neighborhood students. Students will focus on further developing the key content knowledge, cognitive strategies, skills, techniques, and college-knowledge needed to be ready for post-secondary success. A guidance counselor will also work closely with the teacher to assist the students in 12th grade college-readiness activities such as college applications, financial aid, and transitioning to college.

BUSINESS INTERNSHIP – SEMESTER
BE210STDGE 0.5 Credit - STEM Grades 11-12
Is a .5 credit course offering an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions.

BUSINESS INTERNSHIP – YEAR
BE211YTDGE 1 Credit - STEM Grades 11-12
Is an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions. Prerequisites: Approval of the Coordinator.

ADDITIONAL COURSES BY ARRANGEMENT

COMMUNITY SERVICE

AD100STDGE 0.5 Credit Grades 11-12

Is designed to encourage students to become contributing community members who recognize the importance of voluntary activity to help other members of the community. Credit may be earned only upon successful completion of 50 hours of unpaid, voluntary work in not-for-profit companies or governmental agencies, and 10 hours of classroom instruction.

PERFORMING ARTS

REGIONAL CENTER FOR THE ARTS (RCA)

FA410YTDGE 2 Credits Grades 9-12

Is a state-funded performing arts magnet program located at 23 Oakview Drive, Trumbull that provides Students with professional training in dance, music, and theatre. The program is open to students in grades 9-12 in the public schools of Bridgeport, Trumbull, Fairfield, Monroe, and Stratford. Classes meet Tuesday-Friday from 2:00-5:00 p.m. and transportation is provided by participating school districts. RCA looks for potential as well as developed talent; therefore, any interested student is encouraged to apply. Applications are due in Mid- March.

VISUAL ARTS

CERAMICS I

FA331YTDGE 1 Credit - HUMANITIES Grades 9-12

Explores the uses of clay as a creative medium. Emphasis is placed on construction technique, the ceramic process and the elements and principles of design as related to clay. In addition, students are introduced to the potter's wheel and discover the role of ceramic art in various cultures and historical periods.

STUDIO ARTS I

FA311YTDGE 1 Credit -HUMANITIES Grades 9-12

This course is designed for those who may be uncomfortable with creating art and thinking like an artist. This course will push students to learn about themselves and those around them through discussing, creating, and critiquing art. The development of technical skill needed for self-expression and knowledge of contemporary art and artists will be emphasized in this course.

STUDIO ARTS II

FA312YTDGE 1 Credit-HUMANITIES Grades 9-12

This course is designed for those with prior experience in creating, discussion, and critiquing artwork. Emphasis is placed on honing technical skill with a wide range of media, participation in advanced artistic discussion, as well as the development of personal voice.

STUDIO ARTS- AP

VA314YTDAP 1 Credit -HUMANITIES Grades10-12

The Advanced Placement Studio Art program is a rigorous and dynamic exploration of personal portfolio development. Students enrolled in the program are given the opportunity to study in a teacher-led, open studio environment that focuses on technique development in your chosen medium, building a series, cooperative learning, concept exploration and art exhibition preparation. Each student will develop a personal focus, but the program is not material-specific and students are expected to experiment with mediums outside of their comfort zone. Students will develop skills in evaluating work through group critiques and personal critical analysis. There is a strong writing component for this program and students are expected to produce a complete body of work and submit it to the College Board by May. The class is open to juniors and seniors with prior success in Art I. Sophomores are accepted with teacher recommendations.

CENTRAL HIGH SCHOOL
1 LINCOLN BOULEVARD BRIDGEPORT, CT 06606
(203) 275-1502
FAX: (203) 337-0173

Our Vision

To be a model urban high school that values and celebrates diversity and is renowned for its academic excellence and its support of the emotional well-being of the school community.

Central High School's Mission Statement

The mission of Central High School is to inspire our diverse community to work together in order to foster growth and development of our students. We will support the development of a collaborative community, and utilize our unique resources to challenge and cultivate well-balanced individuals who seek knowledge and make significant contributions to society throughout their lives.

Administration

Eric Graf, Principal

David Cadelina, Assistant Principal

Brian Gordon, Assistant Principal

Carmen McPherson, Ed.D, Assistant Principal

Shaun Smith, Magnet Director

Guidance Department

Maureen Gore	Justine Osborne
Finette Lafontant	Eric'ka Lalanne
Christopher Purzycki	Jay Silverman

COLLEGE AND CAREER READINESS

College and Career Readiness is defined as students being prepared to succeed in credit-bearing entry-level general education courses or two-year certificate programs without needing remedial or developmental assistance. A crucial distinction is that college eligibility is not the same as college readiness. Historically, many high schools have emphasized getting students accepted into college, with a heavy focus on meeting criteria for admission. Being ready for college and career preparation extends beyond eligibility, and emphasizes what students need to know and be able to do to persist and ultimately graduate from a postsecondary program. College and career readiness is a multi-faceted concept that includes factors both internal and external to the school environment.

Key College and Career Readiness / Terms and Concepts

Postsecondary: Postsecondary refers to any formal setting an individual pursues for additional instruction beyond high school. These may include two or four year degree programs, certificate or licensure programs apprenticeships, or military programs.

Work Ready: Individual meets basic expectations regarding workplace behavior and demeanor.

Job Ready: Individual possesses specific knowledge necessary to begin an entry-level position.

Career Ready: Individual possesses sufficient foundational knowledge, skills, and general learning strategies necessary to begin studies in a career pathway.

College Ready: Individuals places into and passes, without remediation, a credit-bearing entry-level general education course.

College Eligible: Individual meets the admissions requirements for a two- or four-year college or university. This typically includes meeting high school graduation requirements, maintaining an acceptable grade point average in specified courses, and obtaining satisfactory SAT or ACT scores.

Seven Principles of College and Career Readiness

Principle 1. Create and maintain a college- and career-readiness culture in school.

Principle 2. Create a core academic program aligned with and leading to college readiness by the end of twelfth grade

Principle 3. Teach key self-management skills and academic behaviors and expect students to us them.

Principle 4. Make college and careers real by helping students manage the complexity of preparing for and applying to postsecondary educations.

Principle 5. Create assignments and grading policies that more closely approximate college and career expectations each successive year of high school.

Principle 6. Make the senior year meaningful and appropriately challenging.

Principle 7. Build partnerships with and connections to postsecondary programs and institutions.

CENTRAL HIGH SCHOOL
COLLEGE AND CAREER PATHWAYS

ARTS & MEDIA

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing art, and journalism and entertainment services

CAREERS

Fine & Commercial Artist, Graphic Artist, Art Teacher, Game Designer, Computer Graphics Animator, Music Teacher, Musician Conductor, Composer, Theatre Teacher, Actor, Dancer, Playwright, Newspaper Reporter Photojournalist, Author, Writer, Director, Makeup Artist

BUSINESS, MANAGEMENT & HOSPITALITY

Planning, organizing, directing and evaluating business functions essential to efficient and productive business operations such as financial and investment planning, banking, insurance and business financial management, management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services

CAREERS

Accountant, Financial Manager, Actuary, CEO or CFO, Office Manager, Banker, Public Relations, Loan Officer, Management Analyst, Securities Trader, Tax Auditor, Insurance Agent, Chef/Baker, Bartender, Server, Travel Agent, Hospitality Manager, Hotel Manager, Tour Director, Camp Counselor, Rec Leader

GOVERNMENT, PUBLIC ADMININSTRATION & SAFETY

Executing governmental functions to include Governance; National Security, Foreign Service, Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state and federal levels. Planning, managing and providing legal, public safety, protective services and homeland security, including professional and technical support

CAREERS

Attorney, Corrections Officer, Court Reporter, Court Clerk Police Officer, Detective, Fire Fighter, Inspector, Forensic Artist, Paralegal, Probation Parole Officer, Polygraph Examiner, Government Investigator, State Department Official, Legislative Assistant, Congressional Aide, City or Town Manager, Public Works Director

EDUCATION & HUMAN SERVICES

Planning, managing and providing education and training services, and related learning support services. Preparing individuals for employment in career pathways that relate to families and human needs

CAREERS

Teacher, Counselor, Psychologist, Day Care Director, Librarian, School Adminstrator, College Professor, Sports Coach, Child Care Worker, Recreational Worker, Substance Abuse Director.

CENTRAL HIGH SCHOOL COURSE OFFERINGS

BUSINESS CAREER AND TECHNICAL EDUCATION

BUSINESS INTERNSHIP

BE210STDGE **0.5 Credit -** **Grades 11-12**

A marking-period course in which students will work with a specific department or staff member related to their career pathway choice. The student will engage in on-the-job training which will assist them in developing college and career readiness skills.
Prerequisites: Teacher recommendation and Administrative approval

BUSINESS INTERNSHIP

BE211YTDGE **1 Credit -** **Grades 11-12**

A full-semester course in which student will work with a specific department or staff member related to their career pathway choice. The student will engage in on-the-job training which will assist them in developing college and career readiness skills.
Prerequisites: Teacher recommendation and Administrative approval

INTRODUCTION TO COMPUTER SCIENCE AND PROGRAMMING PART 1

CS100STDGE **0.5 Credit – STEM** **Grades 9-12**

Begins with a brief introduction to Google Apps for Education: Gmail, Docs, Slides, Sheets, Sites, and Forms, then proceeds to Computer Programming with the "Drag & Drop" program: Scratch, where students will learn some basic programming concepts such as variables, counters, loops, and coordinates. The course culminates with students "writing" their own JavaScript programs using CodeHS.

INTRODUCTION TO COMPUTER SCIENCE AND PROGRAMMING PART 2

CS100STDGE **0.5 Credit - STEM** **Grades 9-12**

Continues JavaScript programming on CodeHS and branches out into graphics, animation and games. **Prerequisite: Successful completion of Introduction to Computer Science and Programming Part 1**

COMPUTER SCIENCE A - AP

CS102YTDAP **1 Credit - STEM** **Grades 10-12**

Course is equivalent to a two-semester computer science course taught at the college level in the Java programming language. Topics include arrays, Array Lists, classes, sorting, searching, and recursion. Students who are successful in the course will take an Advanced Placement exam in May for which they may receive three college credits.
Prerequisite: Successful completion of Honors Geometry and teacher recommendation.

COMPUTER SCIENCE PRINCIPLES - AP

CS103YTDAP **1 Credit - STEM** **Grades 10-12**

Course introduces students to the essential ideas of computer science with a focus on how computing can impact the world. Along with the fundamentals of computing, students will learn to analyze data, information, or knowledge represented for

computational use; create technology that has a practical impact; and gain a broader understanding of how computer science impacts people and society. **Prerequisite: Successful completion of Honors Geometry and teacher recommendation**

COLLEGE AND CAREER READINESS 1

ID207YTDGE 1 Credit - HUMANITIES Grade 11

Course is designed to increase post-secondary awareness and preparedness for 11th grade neighborhood Central students through an in-depth focus on foundational college-skills including test-taking strategies, essay writing, note-taking strategies, research skills, college knowledge, and college writing. Preparation for the SAT will also be a major component of the course. A guidance counselor will also work closely with the teacher to assist the students in improving college readiness.

COLLEGE AND CAREER READINESS 2

ID208YTDGE 1 Credit - HUMANITIES Grade 12

Course is designed to focus increasing post-secondary awareness and preparedness for 12th grade neighborhood Central students. Students will focus on further developing the key content knowledge, cognitive strategies, skills, techniques, and college knowledge needed to be ready for post-secondary success. A guidance counselor will also work closely with the teacher to assist the students in 12th grade college-readiness activities such as college applications, financial aid, and transitioning to college.

COLLEGE AND CAREER READINESS FOR AP STUDENTS 1

ID203YTDGE 1 Credit - HUMANITIES Grade 11

Course is designed to increase post-secondary awareness and preparedness for 11th grade Central Magnet students through an in-depth focus on foundational college-skills including test-taking strategies, essay writing, note-taking strategies, research skills, college knowledge, and college writing. Preparation for the SAT will also be a major component of the course. A guidance counselor will also work closely with the teacher to assist the students in improving college readiness. **Prerequisite: Must be a Central Magnet 11th grader**

COLLEGE AND CAREER READINESS FOR AP STUDENTS 2

ID206YTDGE 1 Credit - HUMANITIES Grade 12

Course is designed to focus increasing post-secondary awareness and preparedness for 12th grade Central Magnet students. Students will focus on further developing the key content knowledge, cognitive strategies, skills, techniques, and college knowledge needed to be ready for post-secondary success. A guidance counselor will also work closely with the teacher to assist the students in 12th grade college-readiness activities such as college applications, financial aid, and transitioning to college. **Prerequisite: Must be a Central Magnet 12th grader**

PERSONAL FINANCE

BE111YTDGE 1 Credit - STEM Grades 10-12

A full year course that provides students with the knowledge to effectively manage money and finances. The course will allow students to discover strategies for managing their money, explore skills for the wise use of money, and scrutinize various ways of investing money. Students will gain an understanding of the knowledge and skills necessary to achieve a lifetime of financial enjoyment while achieving personal goals.

INTRODUCTION TO ENTREPRENEURSHIP AND BUSINESS

BE130YTDGE 1 Credit- HUMANITIES Grades 11-12

A full year course that provides students with the fundamental skills of starting a small business. Students learn the major parts of starting a business from developing a business plan, marketing, advertising, and implementing the plan. Students will be

connected with local business partners whenever possible and will be able to explore their interests. Guest speakers and field trips will also be incorporated into the curriculum.

CAREER EXPLORATION

BE204YTDGE 1 Credit- HUMANITIES Grades 11-12

A full year course that allows students to obtain career-building skills essential for post-secondary success. Students will also take part in lessons related to financial literacy and learning how to effectively manage money and finances. Students will be exposed to both college and career options after graduation. Resume writing, interview skills, and other essential skills related to the business world will be explored.

TECHNOLOGY EDUCATION

GRAPHIC COMMUNICATIONS 1

TE101YTDGE 1 Credit - STEM Grades 9-12

Course includes the basic practices in computer composition and desktop publishing, utilizing desktop workstations. Students learn the fundamentals of design and demonstrate this knowledge when creating business cards, flyers, calendars and notepads. Students are also introduced to digital photography and the Internet.

GRAPHIC COMMUNICATIONS 2

TE102YTDGE 1 Credit - STEM Grades 10-12

Course utilizes the same course description as Graphic Communications 1 with emphasis on individuality and industrial responsibilities. Students learn to create their own web pages and are introduced to computer animation.
Prerequisite: Graphic Communications 1

GRAPHIC COMMUNICATIONS 3

TE103YTDGE 1 Credit - STEM Grades 11-12

Course utilizes the same course description as Graphic Communications 2. Students build upon the skills they have previously learned and incorporate them into a more technological environment. Students create projects that are more business-related to give them a better understanding of the industry. **Prerequisite: Graphic Communications 1 and 2.**

ENGLISH

HUMANITIES LAB I

EN001YTDGE 1 Credit - HUMANITIES Grade 9

This is a humanities course taken concurrently with English 9 and World Civilization and is designed to extend time and learning opportunities through interventional support or enrichment.

HUMANITIES LAB II

EN002YTDGE 1 Credit - HUMANITIES Grade 10

This is a humanities course taken concurrently with English 10 and Civics and is designed to extend time and learning opportunities through interventional support or enrichment.

HUMANITIES LAB III

EN003YTDGE 1 Credit - HUMANITIES Grade 11

This is a humanities course designed for 11th graders who are in need of literacy and reading comprehension support.

COLLEGE PREP WRITING - MAGNET

EN404YMAMA 1 Credit - HUMANITIES Grade 9

College Prep Writing is an English Language Arts class for Grade 9 students enrolled in the (Magnet) Early College Program. It supplements the English 9/Humanities curriculum by reading informational texts about current events, writing arguments, identifying key vocabulary, studying Grammar, and developing habits that will lead to personal and academic success. The English 9 and the College Prep Writing classes provide a comprehensive and rigorous course of study that closely aligns with the Common Core Standards.

COLLEGE PREP WRITING - MAGNET HONORS

EN404YMAMH 1 Credit - HUMANITIES Grade 9

An honors level writing class for high-level Grade 9 students enrolled in the (Magnet) Early College Program. It supplements the English 9/Humanities curriculum by reading informational texts about current events, writing arguments, identifying key vocabulary, studying Grammar, and developing habits that will lead to personal and academic success. The English 9 and the College Prep Writing classes provide a comprehensive and rigorous course of study that closely aligns with the Common Core Standards. **Prerequisite: Teacher approval of a submitted writing sample**

ENGLISH 9

EN101YTDGE 1 Credit - HUMANITIES Grade 9

English 9 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. Students study literature, literary nonfiction, and composition. The major focus is on engaging students in a close, critical analysis of the qualitative features of complex texts ranging from short stories, essays, biographies, autobiographies, memoirs, novel, poetry, speeches, and plays. While all literary genres are included, emphasis is on the short story and engaging in discussion and written response to text dependent questions. The composition portion of this course concentrates on three forms of writing: narrative, informative/explanatory, and argumentative that includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with emphasis on writing over shorter time frames such as a single sitting or over a day or two from sources. In conjunction with reading and writing, students develop academic vocabulary, conventions of writing and speaking and listening skills. A short research project and an oral presentation with media are required.

ENGLISH 9 – HONORS

EN101YTDHO 1 Credit - HUMANITIES Grade 9

This English 9 honors course encompasses the objectives and requirements of the regular English 9 curriculum but requires students to work more with complete pieces of literature and literary nonfiction texts and fewer short stories with engagement in discussion and written responses to text dependent questions. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts across longer pieces of texts. Students will compose narrative, informative/explanatory, and argumentative texts that emphasize writing routinely over extended timeframes for research, reflection, and revision and writing over shorter time frames such as a single sitting or over a day or two. In conjunction with reading and writing, students develop academic and domain-specific vocabulary, develop knowledge of figurative language, conventions of writing and speaking and listening skills. A research project and an oral presentation with media are required. **Prerequisite: Teacher recommendation from 8th grade and approval of a submitted writing sample.**

ENGLISH 9 – MAGNET

EN101YMAMA 1 Credit - HUMANITIES Grade 9

Magnet English 9 is a rigorous and comprehensive study of literature in which students will explore a variety of literary genres. Students will engage in both a reading and writing workshop format as they analyze memoirs, epic poetry, drama, dystopian literature, poetry, and other works of both fiction and non-fiction. In reading workshop, students will study the elements of each genre in-depth before applying this knowledge to a text within the genre they are reading. Upon completion of their reading, students will move into a writing workshop, taking what they have learned about each new genre and applying this knowledge to their own works. Students will write personal narratives, epic poems and stories, dystopian pieces, and complete many other creative pieces. In addition, students will also write analytical and comparison/contrast essays and regular reader responses.

ENGLISH 9 – MAGNET HONORS

EN101YMAMH 1 Credit - HUMANITIES Grade 9

Magnet English 9 – Honors is a rigorous and comprehensive study of literature in which students will explore a variety of literary genres. This course encompasses the objectives and requirements of Magnet English 9, but students will work with more challenging material and are expected to demonstrate higher levels of literacy. **Prerequisites: Teacher recommendation and approval of a submitted writing sample.**

ENGLISH 10

EN201YTDGE 1 Credit - HUMANITIES Grade 10

English 10 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. This course introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with a balance between writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, writing conventions, speaking, listening, and viewing are integral components of the program.

ENGLISH 10 – HONORS

EN201YTDHO 1 Credit - HUMANITIES Grade 10

This English 10 Honors course serves as preparation for Advanced Placement English. This course encompasses the objectives and requirements of the regular English 10 curriculum and it introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions and requires that the honor student complete a significant amount of independent reading and writing beyond that required in English 10. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes a greater emphasis on writing routinely over extended timeframes for research, reflection, and revision from two or more sources and includes writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, knowledge of literary devices and figurative language, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required. **Prerequisite**: **Teacher recommendation and a 90+ in English or 85+ in English 9 Honors**

ENGLISH 10 – MAGNET

EN201YMAMA 1 Credit - HUMANITIES Grade 10

This course brings the early foundations of American literature to the forefront by introducing students to various texts from the early years of America. Students will begin with texts that illuminate the cultures of Native Americans and the early explorers of the Americas. Moving to the Puritans and colonists of the newly founded United States of America, students will grapple with texts that persuade, inform, and argue the basic principles of what it means to be an American. Students will continue with American Romanticism and Transcendentalism and analyze narrative texts by Edgar Allan Poe, Emily Dickinson, and Walt Whitman, among others. Common Core standards reflecting listening and speaking skills will be highly emphasized, along with writing argumentative essays. The year will conclude with Civil War literature and the final years before Reconstruction, where juniors will pick up with in Magnet English 11.

ENGLISH 10 – MAGNET HONORS/ INTRO TO WRITING ENGLISH 1004- UCONN ECE

EN201YMAMH/EN503YDECL 1 Credit - HUMANITIES Grade 10

A Pre-AP Course that provides students a rigorous sophomore English program that serves as preparation for Advanced Placement English courses. This course encompasses the objectives and requirements of the Magnet English 10 curriculum but requires students both to work with even more challenging materials and also to demonstrate more advanced levels of literacy. A higher rigor and faster pace set the tone for a classroom environment mirroring the college-level setting that students in the Early College Model of the Magnet Program are preparing for.

Prerequisites: A grade of "B" or better in English 9 Honors, or "A-" or better in English 9 with teacher recommendation. ***ECE students must successfully complete the course with a grade of "C" or above in order to receive UB credit. College credits are transferable to most colleges.***

ENGLISH 11

EN301YTDGE 1 Credit - HUMANITIES Grade 11

English 11 is a modern course in American Literature that fosters an integrated approach to language arts that synthesizes reading, discussion, research, composition, and presentation. Students will compose narrative, informative, and argumentative texts; analyzing, evaluating, and integrating information from sources to support their composition. Major works will be chosen for both literary merit and for relevancy and authenticity to the full range of Native American, European, African, Latina/o, and Asian literary and cultural threads that are essential to a full understanding of American Literature. Diverse perspectives of geography, gender, economic experience, and identities will be represented in readings and as subjects of research and discussion.

Composition includes writing routinely over extended timeframes for research, reflection, and revision from three or more sources with a balance between writing over shorter time frames such as a single sitting or over a day or two. Students will publish essays, book reviews, an interdisciplinary American literature project, resume, application, and cover letter; college essay, formal research paper, an autobiographical sketch, and a media project. Students read literary nonfiction, autobiographies, biographies, and novels, most selected for literary merit and their applicability to self-discovery and personal responsibility. The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills. Composition instruction will include a full course of study of English grammar. Oral language and computer skills are an integral component of English 11; a media supported oral presentation of research is required.

ENGLISH 11 – HONORS

EN301YTDHO 1 Credit - HUMANITIES Grade 11

Honors English 11 is a rigorous American Literature program that serves as preparation for Advanced Placement level studies, Early College Experience Courses, and advanced college work after graduation. This course encompasses the objectives and requirements of the regular English 11 curriculum but requires students both to work with even more challenging materials and

also to demonstrate more advanced levels of literacy. Prerequisites: A grade of "B" or better in English 10 Honors. **Prerequisites: A grade of "B" or better in English 10 Honors and teacher recommendation.**

ENGLISH 11 – MAGNET

EN301YMAMA 1 Credit - HUMANITIES Grade 11

Magnet English 11 is a rigorous American Literature English program that serves as preparation Advanced Placement level studies, Early College Experience Courses, and advanced college work after graduation. This course encompasses the objectives and requirements of the regular English 11 curriculum but requires students both to work with even more challenging materials and also to demonstrate more advanced levels of literacy.

ENGLISH 11 – AP LANGUAGE AND COMPOSITION/COMPOSITION & RHETORIC ENGLISH 101 ECE UB

EN301YTDAP/EN510YDECL 1 Credit - HUMANITIES Grade 11

The AP English Language and Composition course is an introductory college-level course on the analysis and composition of works that participate in the Verbal Martial Art of Rhetoric. AP Language has a rigorous curriculum, which requires students to regularly read challenging material and develop evidence-based essays of argument and analysis that proceed through several stages or drafts. Students are taught to close read, evaluate, synthesize; citing specific evidence/research to support their arguments. Throughout the course, students construct a personal style by developing control and mastery of rhetorically effective choices in grammatical structure and diction in writing that includes subject-specific vocabulary and vocabulary appropriate to audience and task. Additionally, students read and analyze the rhetorical elements of non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. Students will compose in several forms (e.g., narrative, expository, analytical, and argumentative essays) about a variety of subjects in multiple genres. The course develops college level skills in writing research papers which are expected to use the Modern Language Association (MLA) Style manual or The Chicago Manual of Style. AP Language and Composition provides an effective preparation for AP Literature and Composition, UConn Early College Experience, or other advanced elective study.

12TH graders may take the course if they receive administrative approval and have met the necessary requirements. Prerequisite: English 10 or 11 Honors (or above) and Teacher Recommendation.

ENGLISH 12

EN401YTDGE 1 Credit - HUMANITIES Grade 12

English 12 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Composition at the beginning of the course includes the college essay, applications, and resumes. Additionally, students will compose essays, poems, a formal speech, a formal research paper, editorials, letters to editor, critiques, media projects using a variety of text types (i.e. narrative, informative/explanatory, and argumentative) and for a variety of purposes. Students will analyze, evaluate, and integrate information from multiple sources to support their composition and students will also write for shorter time frames such as a single sitting or over a day or two. Students will read literary nonfiction, plays, short stories, novels, and other works. This course focuses on British/World Literature from the Origins of the Nation (449-1485) through periods of literature leading up to and through Modern and Contemporary Literature (1901-present) with genres of literature exploring the history, places, and traditions within their historical and world context (e.g., Beowulf, A Doll's House, Don Quixote, Shakespeare). The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills to further education, college, or career. Oral language and computer skills are an integral component of English 12 and an oral research presentation with media is required.

ENGLISH 12 – MAGNET /INTRO TO LITERATURE ENGLISH 102 ECE UNIVERSITY OF BRIDGEPORT

EN401YMAMA/EN511YDECL 1 Credit - HUMANITIES Grade 12

English 12 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Composition at the beginning of the course includes the college essay,

applications, and resumes. Additionally, students will compose essays, poems, a formal speech, a formal research paper, editorials, letters to editor, critiques, media projects using a variety of text types (i.e. narrative, informative/explanatory, and argumentative) and for a variety of purposes. Students will analyze, evaluate, and integrate information from multiple sources to support their composition and students will also write for shorter time frames such as a single sitting or over a day or two. Students will read literary nonfiction, plays, short stories, novels, and other works. This course focuses on British/World Literature from the Origins of the Nation (449-1485) through periods of literature leading up to and through Modern and Contemporary Literature (1901-present) with genres of literature exploring the history, places, and traditions within their historical and world context (e.g., Beowulf, A Doll's House, Don Quixote, Shakespeare). The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills to further education, college, or career. Oral language and computer skills are an integral component of English 12 and an oral research presentation with media is required. ***ECE students must successfully complete the course with a grade of "C" or above in order to receive UB credit. College credits are transferable to most colleges.***

ENGLISH 12 – AP LITERATURE AND COMPOSITION

EN401YTDAP 1 Credit - HUMANITIES Grade 12

The AP Literature and Composition Course is an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature (fiction, drama, poetry) to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, narrative, and argumentative essays that require students to analyze and interpret literary works that takes the writing through the processes of drafting, editing, revision and publishing final drafts. Students will be required to read texts over the summer and write about the texts. See instructor for details. . The course includes writing college essays and a research paper, which includes use of appropriate and cited evidence to support argument/claims (using college level writing style for informal and formal writing using Modern Language Association and The Chicago Manual of Style).

Prerequisite: **An 80+ in English 11 AP and Teacher Recommendation. (Equity in access policy may be applied).**

ENG 1010: Academic Writing – UCONN ECE

EN502YTDCL 1 Credit - HUMANITIES Grade 12

Students apply for acceptance to UConn's Early College Experience Seminar in Academic Writing (the first semester composition course required of all freshmen). Those who earn a C and complete the thirty pages of writing and final examination will receive four hours of college credit, which is transferable to most universities. Four credit hours are awarded because this is an intensive writing course that equals a 3 hour course with a laboratory component—the extensive writing. This year-long workshop introduces students to the type and level of academic writing that will be expected of them in the university and centers around the close reading, interpretation, and re-evaluation of challenging, non-fiction interdisciplinary readings, which become the focus of the challenging and intriguing writing assignments. Much of the work of the course is on re-reading and re-vising previous drafts—three drafts per project. A dedication to the writing process is expected of all students and part of their learning experience will be in providing peer feedback, which benefits their writing as well. Graduates of this course are well prepared for writing in college, which is the major form of communicating used to convey what has been learned. **Prerequisite: Successful completion of two years of high school English (4 College Credits Possible)** ***UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to most colleges.***

ENG 1011: WRITING THROUGH LITERATURE – UCONN ECE

EN501YTDCL 1 Credit - HUMANITIES Grades 11-12

This Seminar in Writing Through Literature: Examining the Untraditional Society, is a course focused on instruction in academic writing through literary reading. Assignments emphasize interpretation, argumentation, and reflection. Revision of formal assignments and instruction on grammar, mechanics, and style will all be covered in the course. This is a college-level course

which students can obtain 4 college credits from. **Prerequisite: Successful completion of two years of high school English.** ***UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to most colleges.*** **(4 College Credits Possible)**

AP CAPSTONE - SEMINAR

ID102YTDAP 1 Credit - HUMANITIES Grades 11-12

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

AP CAPSTONE - RESEARCH

ID103YTDAP 1 Credit - HUMANITIES Grades 11-12

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research-based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. **Prerequisite – successful completion of AP Seminar**

AFRICAN AMERICAN LITERATURE

EN411YTDGE 1 Credit - HUMANITIES Grade 12

African American Literature (Full Year Course) This course surveys traditional African literature with an emphasis on the pervasive influence of myths, folktales, and proverbs upon the critical, dramatic, fictional, and poetic literature written by African Americans. Special emphasis is given to the chronological development from the slave narrative to the Harlem Renaissance and mid-twentieth century and contemporary works. This class will make clear the presence of a strong black intellectual tradition, which values learning in itself and for the range of freedoms that it can bring. Students write in various formats (both formal and informal) and speak—mostly informally in discussions, but formally in the expository paper that they research, prepare, and deliver. Additionally, intensive summer reading is mandatory; refer to course instructor for specific assignments**. Prerequisite: Magnet English 11; English 11; Must be a senior with senior credits**.

INTELLECTUAL-CREATIVE INQUIRY AND ARGUMENTATION

EN323YTDGE 1 Credit- HUMANITIES Grade 11-12

This pathway course will explore current events, social, political, and environmental issues using a variety of lenses and genres of literature in an effort to interpret, analyze, think critically about the texts and issues. Students will learn the process of academic inquiry through the development of inquiry-based questions, pursuit and analysis of scholarly research, development of solutions to problems/ issues, consideration of the limitations of the proposed solutions, and present solutions to problems/issues through written, verbal, and digital presentations of their argument(s) to bring about positive change. Students will engage in collaborative and Independent inquiry, problem-solving, and presenting.

JOURNALISM

EN311YTDGE 1 Credit - HUMANITIES Grades 10-12

Course is an introduction the student to basic journalistic skills. Students learn to develop a respect for truth in written work. They also evaluate and organize facts using a variety of news writing techniques. Students use these basic journalistic skills to produce a school newspaper. Students will have to complete additional afterschool responsibilities related to journalism in order to receive credit for the course. **Prerequisite: A grade of "B" or better in prior year English.**

MATHEMATICS

STEM LAB I

MA001YTDGE 1 Credit - STEM Grade 9

Is a STEM (Science Technology Engineering and Math) course taken concurrently with Algebra I or Physical Science and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

STEM LAB II

MA002YTDGE 1 Credit - STEM Grade 10

A STEM (Science Technology Engineering and Math) course taken concurrently with Geometry or Biology and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

STEM LAB III

MA003YTDGE 1 Credit - STEM Grade 11

A STEM (Science Technology Engineering and Math) course for 11th grade students who are in need of additional numeracy support in science and math.

STEM ANALYSIS

MA003SMAMA 0.5 Credit - STEM Grade 9

STEM Analysis is a skills-based program designed to strengthen students' basic Math, Science and Technology Problem Solving Skills. The goal is to assure that students have the necessary Math skills, to succeed in higher level Math classes, especially the ability to make sense of problems and persevere in solving them. Many of the class activities have students working at their own level to improve; while other activities stress a Collaborative Group Problem Solving approach to learning. **Prerequisite: Must be a 9th grade Central Magnet student.**

ALGEBRA 1

MA101YTDGE 1 Credit – STEM Grades 9-12

Course involves applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents and performing operations with polynomials. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections and communicating mathematically.

ALGEBRA 1 – HONORS

MA101YTDHO 1 Credit - STEM Grade 9

Course is designed for students who have exhibited a high degree of skill in both mathematical manipulation and logical thinking. Topics include applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents, performing operations with polynomials, solving and graphing quadratic equations, and solving and graphing linear inequalities. Considerable

emphasis is placed on the applications of concepts through the use of open-ended word problems, performance assessments, technology, multiple representations, making mathematical connections and communicating mathematically.
Prerequisite: (Middle School Students) Grade 8 Math with minimum of "B+", Teacher Recommendation, and Grade 8 end-of-year test score of 75 or higher.

ALGEBRA 1 – MAGNET

MA101YMAMA 1 Credit - STEM Grades 9- 10

Course makes connections between Algebra, Geometry, and Probability and Statistics. Computations include: applying rules of Algebra; solving, graphing, and writing linear equations; solving and graphing linear inequalities; solving systems of linear equations; exploring and applying the laws of exponents; solving and graphing quadratic equations; solving rational equations; and exploring functions and relations. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections, and communicating mathematically.

ALGEBRA 1 – MAGNET HONORS

MA101YMAMH 1 Credit - STEM Grade 9

Course makes connections between Algebra, Geometry, and Probability and Statistics. Computations include: applying rules of Algebra; solving, graphing, and writing linear equations; solving and graphing linear inequalities; solving systems of linear equations; exploring and applying the laws of exponents; solving and graphing quadratic equations; solving rational equations; and exploring functions and relations. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections, and communicating mathematically. **Prerequisite: Placement test and Teacher Recommendation.**

ALGEBRA 2

MA202YTDGE 1 Credit - STEM Grades 11-12

Course seeks to develop a higher degree of skill and accuracy in algebraic techniques and understanding of the structure of mathematical systems. Topics include a review and an extension of many concepts developed in Algebra 1, such as solving and graphing linear and quadratic equations. Other topics incorporated in this course include: solving and graphing exponential, logarithmic and rational functions and writing and identifying properties of conic sections. Emphasis is placed on problem solving using graphing calculator and computer activities, mathematical reasoning and connections. **Prerequisite: Successful completion of Algebra I and Geometry.**

ALGEBRA 2 – HONORS

MA202YTDHO 1 Credit- STEM Grades 11

Course expands on the topics of Algebra 1 Honors and provides further development of the concept of nonlinear functions. The expanded topics include quadratic, exponential, rational, and polynomial functions, sequences and series and the complex numbers system. Emphasis will be placed on the theory and practical applications of Algebra through the use of graphing calculators and related computer software.
Prerequisite: Successful completion of Algebra I and Geometry and Teacher Recommendation.

ALGEBRA 2 – MAGNET

MA202YMAMA 1 Credit - STEM Grades 9-11

Course seeks to extend the learning of Algebra 1 to the study of nonlinear functions— quadratic functions, polynomial functions, exponential functions, logarithmic functions, rational and radical functions, and trigonometric functions. Emphasis is placed on problem solving using graphing calculator and related computer programs, mathematical reasoning, critical thinking and communicating mathematics.
Prerequisites: Successful completion of Algebra I and Geometry.

ALGEBRA 2 – MAGNET HONORS

MA202YMAMH 1 Credit - STEM Grade 9-11

Course seeks to extend the learning of Algebra 1 to the study of nonlinear functions— quadratic functions, polynomial functions, exponential functions, logarithmic functions, rational and radical functions, and trigonometric functions. Emphasis is placed on problem solving using graphing calculators and related computer software, mathematical reasoning, critical thinking, and communicating mathematics.

Prerequisite: Successful completion of Algebra I and Geometry and Teacher Recommendation.

GEOMETRY

MA201YTDGE 1 Credit - STEM Grades 9-12

Course includes the concepts of geometric figures, parallelism, congruency, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and computer software; mathematical connections; critical thinking skills; reasoning; and communicating mathematically. Hands-on activities will also be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts. **Prerequisite: Algebra I**

GEOMETRY – HONORS

MA201YTDHO 1 Credit - STEM Grades 9-11

Course emphasizes the further development of skills, techniques and connections of geometric concepts. Topics include in-depth study of the properties and classification of triangles and polygons, similarity and congruency, transformations, properties of circles including arcs, chords and tangents, trigonometry and deductive reasoning and proof. Hands-on activities will be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts. **Prerequisite: Algebra I and teacher recommendation**

GEOMETRY – MAGNET

MA201YMAMA 1 Credit - STEM Grades 9-11

Course includes the concepts of geometric figures, parallelism, congruence, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area, and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and the computer; mathematical connections; critical thinking skills; reasoning; and communicating mathematics. **Prerequisite: Algebra I**

GEOMETRY – MAGNET HONORS

MA201YMAMH 1 Credit - STEM Grade 9-11

Course includes the concepts of geometric figures, parallelism, congruence, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area, and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and the computer; mathematical connections; critical thinking skills; reasoning; and communicating mathematics. **Prerequisite: Algebra I and teacher recommendation**

PROBABILITY & STATISTICS

MA301YTDGE 1 Credit - STEM Grades 11-12

Course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will work with statistical measures of central tendency and spread and methods of sampling and experimentation. Students will use multiple representations to present data, including written descriptions, numerical statistics, formulas and graphs. **Prerequisite: Algebra I.**

PROBABILITY & STATISTICS – MAGNET

MA301YMAMA 1 Credit - STEM Grades 11-12

Course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will work with statistical measures of central tendency and spread and methods of sampling and experimentation. Students will use multiple representations to present data, including written descriptions, numerical statistics, formulas and graphs. **Prerequisite: Algebra I.**

STATISTICS – AP

MA301YTDAP 1 Credit - STEM Grades 11-12

Course is a rigorous study of statistics and some basic concepts of probability. Topics include exploring data, analyzing data, planning a statistical study, producing models using probability and statistical inference. Using real data-based applications taken from a wide variety of journals, newspapers, and other sources, students will develop skills to comprehend problems that describe situations to which techniques and the mechanics may be applied. Emphasis will be on the "why" as well as the "how" of statistics.

The course will culminate with an Advanced Placement exam in May.

Prerequisites: Algebra 2 (may be taken concurrently) and Teacher Recommendation.

PRE-CALCULUS

MA400YTDGE 1 Credit - STEM Grades 11-12

Course is designed to provide students with an intensive, accelerated, and rigorous program in trigonometry, problem solving with mathematical modeling to real world situations, and applications of analytical concepts. A special emphasis Will be placed on higher algebraic techniques and graphical representations using technology. This course is a requirement for Advanced Placement Calculus. **Prerequisites: Algebra 2**

CALCULUS I / CALCULUS & ANALYTICAL GEOMETRY MATH 110 UB ECE

MA401YTDGE/MA520YDECL 1 Credit - STEM Grades 11-12

Course is intended for students who have a thorough knowledge of college preparatory mathematics: Algebra, Geometry, Trigonometry and Analytical Geometry or Pre-Calculus. Topics include polynomial functions, trigonometric functions, exponential and logarithmic functions, the derivative and its applications, integration and its applications and methods and the definite integral and its applications. **Prerequisite: Pre-Calculus**

CALCULUS AB – AP

MA401YTDAP 1 Credit - STEM Grades 11-12

Course covers all topics algebraically, geometrically, and analytically. These include: functions, analysis of graphs, limits, continuity; derivatives at a point and of functions, second derivatives and applications and computation of derivatives; interpretations and properties of definite integrals, applications of integrals, including volumes of solids of revolution, disks, and washer; the Fundamental Theorem of Calculus; and techniques and applications of anti-differentiation and numerical approximations to definite integrals. Students are required to take the Advanced Placement examination in May and may receive credit for up to two semesters of Calculus.

Prerequisites: Pre-Calculus and teacher recommendation

CALCULUS BC – AP

MA402YTDAP 1 Credit - STEM Grades 11-12

Course includes topics covered in A.P. Calculus AB plus studies of parametric, polar and vector functions; applications of integrals; polynomial approximations and series including, the concepts of series, divergence vs. convergence and types of series, series of

constants, and Taylor/Maclaurin series. Students are required to take the Advanced Placement examination in May and may receive credit for up to three semesters of Calculus.
Prerequisites: Pre-Calculus and teacher recommendation

MUSIC/PERFORMING ARTS

CHOIR

FA131YTDGE **1 Credit** **Grades 9-12**

Course is open to all students on a selective basis. Students must demonstrate a high degree of vocal proficiency and musicianship and the approval of the instructor. Since its major goal is the study and performance of choral masterpieces from various musical periods, students are given intensive training in the principles of vocal production, musicianship, interpretation, and the appreciation of music as it is related to musical style, literature, and history.

BAND – BEGINNER

FA111YTDGE **1 Credit** **Grades 9-10**

Course is an introduction to woodwind, brass and percussion instruments. Students will choose their focus instrument during the first week of school. Group and individual practice will be expected. **There is a performance requirement for this class. There also is a $30 a year maintenance fee.**

BAND – ADVANCED

FA116YTDGE **1 Credit** **Grades 9-12**

Course is designed for members of the high school performing band. This organization functions as a concert and marching band. Membership is by teacher recommendation only and requires participation in all school, community, and festival events. **There is a $30 a year maintenance fee. Prerequisite: Teacher Recommendation.**

STRINGS ORCHESTRA

FA123YTDGE **1 Credit** **Grades 9-12**

This course is available to all students regardless of ability. Ensemble and solo literature will be studied. Instruments offered include guitar, ukulele, cello and violin. There is a performance requirement for this class. **There is a $30 a year maintenance fee.**

STRINGS ORCHESTRA- ADVANCED

FA124YTDGE **1 Credit** **Grades 9-12**

This course is available to all students who have successfully completed Strings Orchestra or have demonstrated the ability to play a string instrument on an advanced level. **There is a $30 a year maintenance fee.**

PIANO

FY121YTDGE **1 Credit** **Grades 9-12**

This course is an introduction to basic piano performance skills and music theory. The course is offered to all levels but is geared toward beginning students. Course is limited to 20 students.

MUS-1001: MUSIC APPRECIATION – UCONN ECE

FA501YDECL **1 Credit** **Grades 11-12**

This course is designed to foster an appreciation of the art of music, in particular Western "Art" Music, though students will study examples of non-Western music, jazz, and rock as well. This course falls within the Arts and Humanities Content Area of the General Education curriculum at UCONN, and thus provides a broad vision of artistic and humanistic themes.

Goals are: To use the study of developments in Western music as a means to understanding some of the most important artistic, cultural, and historical processes of humanity; To develop the listening skills necessary to discern the genres and styles of "classical" music, essential for the accomplishment of goal #1; To become familiar with masterworks of the repertoire, developing an understanding of the historical and cultural context that made them possible; To continue applying these listening and cultural skills to all music in the future, becoming critical listeners and thinkers.

Prerequisite: Successful completion of at least 1 music course on the high school level. UCONN *ECE students must successfully complete the course with a grade of "C" or above in order to receive UB credit. College credits are transferable to most colleges.*

INTRO TO HUMAN RIGHTS HRTS 1007 UCONN ECE

FA503YDECL **0.5 Credit- HUMANITIES** **Grades 11-12**

This course explores the central human rights institutions, selected human rights themes and political controversies, and key political challenges of contemporary human rights advocacy. **UCONN *ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to most colleges.***

POPULAR MUSIC MUSI 1003: UCONN ECE

FA510YDECL **0.5 Credit** **Grades 11-12**

This course examines American popular music within its historical and social context, primarily throughout the 20th century. It will encourage you to think critically and creatively about popular music in relation to topics of diversity. We will study significant styles of American popular music, with a focus on select songs that exemplify their respective genres, and explore several recurring themes throughout the course. **UCONN *ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to most colleges.***

REGIONAL CENTER FOR THE ARTS (RCA)

FA410YTDGE **2 Credits - HUMANITIES** **Grades 9-12**

A state-funded performing arts magnet program located at 23 Oakview Drive, Trumbull that provides Students with professional training in dance, music, and theatre. The program is open to students in grades 9-12 in the public schools of Bridgeport, Trumbull, Fairfield, Monroe, and Stratford. Classes meet Tuesday-Friday from 2:00-5:00 p.m. and transportation is provided by participating school districts. RCA looks for potential as well as developed talent; therefore, any interested student is encouraged to apply.

PHYSICAL/HEALTH EDUCATION

HEALTH

HE101STDGE **0.5 Credit** **Grades 9-12**

A semester course which provides information to motivate students to protect, maintain and improve their health. Topics include: Substance Abuse, Nutrition, Mental/Emotional Health, Growth and Development, Disease Prevention, First Aid and Safety, Family Life, AIDS, Community Health and Self-Esteem.

Success completion of this course is required for graduation.

PHYSICAL EDUCATION

PE100YTDGE **1 Credit** **Grades 9-12**

Course introduces a variety of individual and team sports. Instructional emphasis will be on basic skills, rules, strategies and fitness. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION 1

PE101STDGE **0.5 Credit** **Grades 9-12**

A semester course for 10th-12th grade students that will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION 2

PE102STDGE **0.5 Credit** **Grades 9-12**

A semester course for 10th-12th grade students that will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION 3

PE103STDGE **0.5 Credit** **Grades 10-12**

A semester course for 10th-12th Grade students that will develop their own conditioning program. Individual and team sports will be played at a competitive level. Students will be introduced to strategies and advanced training techniques. Values such as teamwork, sportsmanship and respect for differences will be enforced.

VISUAL ARTS

DIGITAL PHOTOGRAPHY

FA204YTDGE **1 Credit - STEM** **Grades 9-12**

In this course we will explore digital photography in relation to fine art. The course will emphasize digital technology using digital cameras and the Adobe Photoshop Software. This course is centered on artistic perception, photographic composition, computer image development, enhancement, and manipulation.

ADVANCED DIGITAL IMAGING

FA205YTDGE **1 Credit - STEM** **Grades 10-12**

This course is an independent approach to digital photography as well as digital art in relation to fine art photography. Students will explore a variety of creative techniques for producing, editing and altering images using computers, software and digital tools. Students will create and interpret digital images while exploring significant historical and cultural achievements and trends in digital photography.

Prerequisite: Digital Photography or Computer Visual Arts

COMPUTER VISUAL ARTS I

FA221YTDGE **1 Credit - STEM** **Grades 10-12**

Computer Visual Arts One is a drawing and painting class using the computer and software to create digital drawings and paintings. Software used in this class is Adobe Photoshop and Adobe Illustrator. Students will also learn computer keyboard commands and shortcut commands specifically used for graphic designs and renderings **Prerequisite: One of the following courses must be completed before taking this class: Foundations in Studio Art, Drawing, or Introduction to Art**

ADVANCED COMPUTER VISUAL ARTS II

FA222YTDGE 1 Credit - STEM Grades 11-12

Advanced Computer Visual Arts is the continuation of Computer Visual Arts 1 where students will take their graphic arts skills to a higher order of learning. Students will have the opportunity to compete on a state level for scholarship funds in the Scholastic Arts Awards. Digital Portfolios will be created for Students attending Universities and Art schools upon graduation. Digital drawing tablets will be used in this advanced course. **Prerequisite: One of the following courses must be completed before taking this class: Computer Visual Arts 1, Digital Photography, or Graphic Communications.**

LIFE DRAWING

FA301STDGE 0.5 Credit - HUMANITIES Grades 9-12

This .5 credit course is designed for the students who wish to explore observational drawing and many drawing media such as pencil, charcoal, ink and colored pencil. Units will be the Human head, Human hands and feet, Still life and other life forms. The student will be focused on developing her/his observational skills and skills at using the elements of art to create the illusion of 3D in drawings.

ENVIRONMENTAL DRAWING

FA302STDGE 0.5 Credit - HUMANITIES Grades 9-12

This .5 credit course is designed for the students who wish to explore observational drawing and many drawing media such as pencil, charcoal, ink and colored pencil. Units will be Plants and Trees, Perspective, Landscapes and Structures. The student will be focused on developing her/his observational skills and skills at using the elements of art to create the illusion of 3D in drawings.

ADVANCED DRAWING

FA303YTDGE 1 Credit - HUMANITIES Grades 10-12

This course is designed for the serious art students who wish to explore in depth observational drawing and many drawing media such as charcoal, ink, pastel and paint. Units will be Surroundings, Still Life, the Human Figure, Illustration Styles, History and Social aspects of two dimensional art forms. The student will be focused on developing her/his individual drawing style and media preferences.

Prerequisites: Life and Environmental Drawing, Foundations in Studio Art, or Introduction to Art

COMMERCIAL ART

FA317YTDGE 1 Credit - HUMANITIES Grades 10-12

This course will explore the practical applications of art and design such as illustration techniques, 2D graphic design, color theory, advertising print ads, 3D package design and sculptural prototypes for a variety of purposes (toys, installations, statues, etc.) **Prerequisite: One of the following courses must be completed before taking this class: Life Drawing, Environmental Drawing, Foundations in Studio Art, or Introduction to Art**

FOUNDATIONS IN STUDIO ART

FA310YTDGE 1 Credit - HUMANITIES Grades 9-12

Course offers students a broad range of experiences in a variety of media as well as an introduction to the elements and principals of design. Students will create and interpret visual images and will explore significant historical and cultural achievements and trends in the visual arts.

STUDIO ARTS- ADVANCED PLACEMENT

FA314YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

The Advanced Placement Studio Art course is intended for highly motivated students who are seriously interested in continuing their art education in college. This course requirement is significantly more rigorous and students should demonstrate commitment and accomplishment while enrolled. This course strives for quality of production and experience in the investigation of drawing styles, techniques and reflection of historical influences in drawing as well as design elements. Students will be submitting a digital portfolio to the College Board in May, in replacement of a final exam for college credits. **Prerequisite: Students who have successfully completed foundations in studio arts, advanced studio arts and/or environmental drawing/life drawing, and/or advanced drawing with teacher permission**.

ADVANCED STUDIO ARTS

FA314YTDGE **1 Credit - HUMANITIES** **Grades 10-12**

Offers students a more in-depth and hands on learning experience in the 2 dimensional and 3 dimensional areas of studio arts. Students will learn a variety of concepts and approaches in drawing, 2D and 3D design

Prerequisite- Foundations in Studio Art or Drawing

DRAWING 1 – ADSN 105 ECE- UB

FA304YDECL **1 Credit- HUMANITIES** **Grades 11-12**

This course focuses on the fundamental principles of drawing including balance, proportion, emphasis, variety, movement, rhythm and harmony. Students are required to present sample portfolios of their work. Prerequisite: Students must have permission from the teacher in order to take the course. ***ECE students must successfully complete the course with a grade of "C" or above in order to receive UB credit. College credits are transferable to most colleges.***

FINE ART INDEPENDENT STUDY

FA315STDGE **0.5 Credit - HUMANITIES** **Grades 11-12**

Course is open to advanced visual and musical performing art students who express a desire to specialize beyond course offerings. The student meets with the teacher in a regularly scheduled class. Research in the area of specialization is tentatively planned for the year, marking period by marking period. There is a one-person presentation/performance of the student's work at the end of the year. **Course can also be taken for a full year**. **Prerequisite: Teacher Recommendation.**

SCULPTURE 1

FA321YTDGE **1 Credit - HUMANITIES** **Grades 10-12**

This course is designed for students who wish to explore three dimensional arts in depth. This course will include Realistic and Abstract projects using Modeling, Carving and Assemblage or Additive techniques in a variety of media including Metal, Wood, Clay, Soapstone, Styrofoam and Man-made and/or Natural Found Objects.

Prerequisite: One of the following courses must be completed before taking this class: Environmental Drawing, Foundations in Studio Art, or Introduction to Art

CERAMICS ECE through Housatonic Community College

FA421YTDGE **1 Credit – HUMANITIES** **Grades 11-12**

An introductory study in ceramics. Students will learn basic clay skills for the construction of ceramic pieces. The course focuses on processes involved in creating aesthetic and utilitarian works through established techniques and through experimentation with materials. Students will learn the essentials of surface decoration, working with clay, glaze application, and kiln firing. Successful completion will result in 3 college credits through Housatonic Community College

SCIENCE

PHYSICAL SCIENCE

SC101YTDGE **1 Credit - STEM** **Grade 9**

A full year course introducing the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

PHYSICAL SCIENCE- HONORS

SC101YTDHO **1 Credit - STEM** **Grade 9**

Course is a full-year course introducing the basic principles and applications of matter, its properties and reactions, interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. There will be one lab period per week.

PHYSICAL SCIENCE- MAGNET

SC101YMAMA **1 Credit - STEM** **Grade 9**

A full-year course introducing the basic principles and applications of matter, its properties and reactions, interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. There will be one lab period per week. This course must be passed for entrance into Magnet Biology.

PHYSICAL SCIENCE- MAGNET HONORS

SC101YMAMH **1 Credit - STEM** **Grade 9**

A full-year course introducing the basic principles and applications of matter, its properties and reactions, interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. There will be one lab period per week. This course must be passed for entrance into Magnet Biology.

BIOLOGY

SC110YTDGE **1 Credit - STEM** **Grades 10**

This introductory course of Biology is a yearlong survey of such topics as cellular biology, biochemistry, taxonomy, evolution, human body systems, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas. CAPT preparation is incorporated into the design of this course.

BIOLOGY – HONORS

SC110YTDHO **1 Credit - STEM** **Grade 10**

This introductory honors course of Biology is a yearlong survey of such topics as cellular biology, biochemistry, taxonomy, evolution, human body systems, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas. CAPT preparation is incorporated into the design of this course.

BIOLOGY – MAGNET

SC110YMAMA 1 Credit - STEM Grades 9-11

This introductory course of Biology is a yearlong in depth study of such topics as cellular biology, biochemistry, taxonomy, evolution, human body systems, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas. Emphasis is placed on analytical and critical thinking skills, data interpretation and other CAPT preparatory skills.

BIOLOGY – MAGNET HONORS

SC110YMAMH 1 Credit - STEM Grade 10

This course fosters a higher level of student independence. Concepts introduced will be studied in great detail. The course will focus on such topics as cellular biology, biochemistry, evolution, taxonomy, human body systems, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas. Lab work will be extensive and will require independent research. CAPT preparation is also integrated into the course.

BIOLOGY – AP

SC110YTDAP 1 Credit- STEM Grades 11-12

Course is equivalent to a college-level introductory Biology course and follows the College Board's A.P. Biology Curriculum. Students will be expected to do considerable independent learning because the breadth and depth of the content, the kind of laboratory work, and the sophistication of the technology mirrors a college-level course. It is expected that students will take the A.P. exam in May, which may lead to college credit. The class meets for a double period two days a week and a single period once a week. **Prerequisites: Successful completion of one year of Biology and one year of Chemistry.**

CHEMISTRY

SC201YTDGE 1 Credit - STEM Grades 11-12

A full year course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course stresses chemical reactions, their occurrences, and the energy transfers associated with these reactions. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite: Must pass one tier I non-life science and one year of Algebra I.**

CHEMISTRY – MAGNET

SC201YMAMA 1 Credit - STEM Grades 11-12

A full year course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course emphasizes the foundation topics in Measurement & Uncertainty within the laboratory skills developed in the topics of Atomic Structure, Stoichiometry, Periodicity, Bonding, Gas Laws, Energetics, Acid-Base Theory and Organic Chemistry as related. It is accompanied by the appropriate laboratory work to prepare a student for further studies in science as a career or in college. Students WILL be prepared to continue into AP Chemistry if a C or better is earned in the course. **Prerequisite: Must pass one other tier I non-life science and one year of Algebra I.**

CHEMISTRY – MAGNET HONORS/ GENERAL CHEMISTRY I: CHEM 103 UB ECE

SC201YMAMH/SC505YDECL 1 Credit - STEM Grades 11-12

A full year Magnet Honors course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course emphasizes the foundation topics in Measurement & Uncertainty within the laboratory skills developed in the topics of Atomic Structure, Stoichiometry, Periodicity, Bonding, Gas Laws, Energetics, Acid-Base Theory and Organic Chemistry as related. It is accompanied by the appropriate laboratory work to prepare a student for further studies in science as a career or in college. The mathematical applications are in greater depth than Magnet

Chemistry. Students WILL be prepared to continue into AP Chemistry if a C or better is earned. **Prerequisite: Must pass two years of science and one year of Algebra I. (4 college credits possible)**

CHEMISTRY – AP /GENERAL CHEMISTRY CHEM 1127Q UCONN ECE

SC201YTDAP/SC504YDECL 1 Credit - STEM Grades 11-12

Course is the equivalent of the first year chemistry course generally taken in college. It follows the A.P. Chemistry curriculum outlined by the College Board and is intended to prepare the student for success on the A.P. exam. Topics will build from the previous year of chemistry and introduce new topics in Acid-Base applications, Equilibrium and Electrochemistry as well as more complex applications of Bonding, Atomic Structure and Periodic Trends. Critical thinking, analytical skills and problem solving are emphasized. Students should be prepared to do a minimum of five hours a week of independent study. A strong math background is helpful, and algebra skills are essential. **Prerequisite: Algebra I and chemistry. UCONN *ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to most colleges.* (4 college credits possible)**

ENVIRONMENTAL SCIENCE

SC102YTDGE 1 Credit - STEM Grades 11-12

In Environmental Science, students will be introduced to basic concepts in environmental science, including scientific methodologies, and the composition and structure of the biosphere, geosphere, atmosphere and hydrosphere. A study of how life is organized, the role of evolution, and the structure and requirements of ecosystems follows and then moves on to the study of population (both human and non-human), biodiversity (its importance and the dangers to it), and a study of water, air and land. Students will end the year with the Earth's energy resources.

ENVIRONMENTAL SCIENCE – AP / ENVIRONMENTAL SCIENCE NRE 1000 UCONN ECE

SC102YTDAP/SC102YDECL 1 Credit - STEM Grades 10-12

The AP Environmental Science course is designed to provide students with the scientific theories, models, and techniques that will allow them to analyze local, regional and global environmental issues. A strong emphasis is placed on science, stewardship and sustainability. Students will utilize critical, creative, logical and reflective thinking to study and evaluate natural and human induced environmental problems. The course requires an interdisciplinary view that ranges across the social sciences, ethics, politics, mathematics, and many other scientific fields. Labs, field trips and special assignments are important aspects of the environmental science curriculum. ***Prerequisites:*** **Successful completion of two years of high school science.**

PHYSICS – MAGNET

SC301YMAMA 1 Credit - STEM Grades 11-12

Course is the study of the fundamental laws and concepts of our physical world. Areas of emphasis are mechanics, thermal physics, waves, electricity and magnetism, and particle physics. The laboratory is an integral part of the course. **Prerequisites: Two science courses and Algebra II.**

PHYSICS – AP

SC301YTDAP 1 Credit - STEM Grades 11-12

Course is a full year intense and comprehensive lab science course that follows the AP Physics Curriculum as outlined by the College Board. The course covers all aspects of mechanics including advanced rotation, simple harmonic motion, waves, electric circuits and extensive field theory. This class is the equivalent of a college level physics course for science and engineering majors and will be conducted as such. **Prerequisite: Algebra II AND be concurrently enrolled in a higher levels of mathematic. There is a short summer math-data application worksheet.**

ANATOMY & PHYSIOLOGY

SC310YTDGE **1 Credit - STEM** **Grades 11-12**

Course is a rigorous, full-year in-depth study of human anatomy and physiology. It includes a systematic review of the integumentary, skeletal, muscular, nervous, reproductive, endocrine, digestive, immune, and circulatory systems. Labs involving comparative study of cells, tissues, and organs are incorporated into the curriculum to supplement and enhance learning.
Prerequisites: Biology.

ANATOMY & PHYSIOLOGY - MAGNET

SC310YMAMA **1 Credit - STEM** **Grades 11-12**

Course is a rigorous, full-year in-depth study of human anatomy and physiology. It includes a systematic review of the integumentary, skeletal, muscular, nervous, reproductive, endocrine, digestive, immune, and circulatory systems. Labs involving comparative study of cells, tissues, and organs are incorporated into the curriculum to supplement and enhance learning.
Prerequisites: Biology.

ADVANCED ANATOMY & PHYSIOLOGY

SC317YTDHO **1 Credit - STEM __** **Grades 11-12**

Advanced Anatomy & Physiology is designed to be an extension of Magnet Anatomy and Physiology. The course is an advanced study of the human body for students with a possible interest in pursuing a career in a health-related field. Topics include anatomical structures, physiological systems, and body functions. Students will acquire skills used in the classification of data, experience in oral and written communication of data, and skills in drawing logical inferences and predicting outcomes. Students will apply the principle of physiology to human health and well-being and evaluate the applications and career implications of physiology and anatomy principles. A focus on case-studies, disease, and current events in health sciences will be employed.
Prerequisites: Anatomy & Physiology

ASTRONOMY

SC305YTDGE **1 Credit - STEM** **Grades 11-12**

Course is a full year course designed to introduce students to concepts related to ancient astronomers, cosmology, the life in space and the tools of the astronomer. In addition, asteroids, comets and meteorites will be studied, along with stars, galaxies, constellations, and the current NASA space program. **Prerequisite: Must pass one tier I non-life science course.**

FORENSIC SCIENCE

SC203YTDGE **1 Credit - STEM** **Grades 11-12**

An interdisciplinary course which includes the application of scientific knowledge to solve crimes and legal problems. Students will have an opportunity to delve into the history of forensic science and possible career opportunities. This course is taught in a multidisciplinary approach, which includes the sciences (life science, chemistry, physics, and earth science), mathematics, technology, language arts and social studies.
Prerequisite: Biology

GENETICS

SC410YMAMA 1 Credit - STEM Grade 11-12

Students will explore the fundamental properties of inheritance in eukaryotic organisms, with an emphasis on man. Examples throughout other vertebrate taxa will also be encountered. Students will develop a working understanding and application of various concepts in the study of genetics. These concepts include the nature, organization, transmission, expression, recombination, and function of genetic materials. An in depth understanding of the genetic characterization of populations is the primary goal of this course. Fundamental knowledge of biological concepts including classification, speciation, and adaptations will assure student success in the study of genetics. This course will prepare students for advanced study in the Biotechnology and Genetics Laboratory courses. **Prerequisites: Successful completion of Biology and/or Anatomy and Physiology**

GEOLOGY AND METEOROLOGY

SC103YTDGE 1 Credit - STEM Grades 11-12

In Geology and Meteorology, students will be introduced earth systems and physical characteristics of the earth, including the composition and structure of the biosphere, geosphere, atmosphere and hydrosphere. The study of constructive and destructive forces on land follows, specifically with rocks and minerals, weathering and erosion, and plate tectonics, before moving on to feedback systems (including erosion and deposition, energy flows in climate), weather and climate (composition & structure, origin and evolution of weather events, and climate change's impact on society). Students will end the year with an exploration of human sustainability in terms of resources, resource management, and conservation. **Prerequisite: Must pass one non-life tier I science course**

SOCIAL STUDIES

WORLD CIVILIZATION

SS101YTDGE 1 Credit - HUMANITIES Grade 9

This course explores major themes in the development and expansion of civilization such as survival, rebirth, revolution, and globalization. Assured experiences and performance tasks focus on the analysis of primary and secondary sources as well as writing argumentative and informational essays.

WORLD CIVILIZATION – HONORS

SS101YTDHO 1 Credit - HUMANITIES Grade 9

This honors level course explores major themes in the development and expansion of civilization such as survival, rebirth, revolution, and globalization. Assured experiences and performance tasks focus on the analysis of primary and secondary sources as well as writing argumentative and informational essays.

WORLD CIVILIZATION – MAGNET

SS101YMAMA 1 Credit - HUMANITIES Grade 9

Course is a comprehensive survey of World Civilization designed to prepare ninth grade students to achieve national and state standards. Course content includes the beginning of civilization, medieval times, the Renaissance and the 20th Century. Emphasis is placed on analysis of primary and secondary sources especially those related to classical civilizations in Europe, the role of imperialism and conflict in the world.

WORLD CIVILIZATION – MAGNET HONORS

SS101YMAMH 1 Credit - HUMANITIES Grade 9

Course is a comprehensive survey of World Civilization designed to prepare ninth grade students to achieve national and state standards. Course content includes the beginning of civilization, medieval times, the Renaissance and the 20th Century. Emphasis is placed on analysis of primary and secondary sources especially those related to classical civilizations in Europe, the role of imperialism and conflict in the world.

Prerequisite: Middle School teacher/counselor recommendation and approval of submitted writing sample.

WORLD HISTORY - AP

SS105YTDAP 1 Credit - HUMANITIES Grade 9

AP World History is designed to be the equivalent of a two-semester introductory college or university world history course. In AP World History students investigate significant events, individuals, developments, and processes in six historical periods from approximately 8000 B.C.E. to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course provides five themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures

CIVICS

SS201YTDGE 0.5 Credit - HUMANITIES Grade 10

The focus of this course is to prepare students to exercise their political responsibilities as thoughtful and informed citizens. Civics provides a basis for understanding the rights and responsibilities for being an American citizen and a framework for competent and responsible participation. Emphasis is placed on the historical development of government and political systems; the United States Constitution; Federal, State and local government structure and the importance of the rule of law; and the rights and responsibilities of citizenship at a local, national and global level. Students will actively investigate local, state and national issues, read and participate in discussions, analyze primary and secondary documents, and develop informed arguments using a variety of writing forms.

CIVICS- HONORS

SS201STDHO 0.5 Credit - HUMANITIES Grade 10

An honors level course that provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

CIVICS (AMERICAN GOVERNMENT AND POLITICS) - MAGNET

SS201SMAMA 0.5 Credit - HUMANITIES Grade 10

Course is a mandatory semester course for tenth grade students that examines civic life, politics, government, and the foundations of the American political system. Students explore the role of the Constitution, roles of citizens and America's relationship to other world nations and world affairs. Special emphasis is placed on developing the participatory skills essential for informed, effective and responsible citizenship.

CIVICS (AMERICAN GOVERNMENT AND POLITICS) - MAGNET HONORS

SS201SMAMH 0.5 Credit - HUMANITIES Grade 10

An honors level, full year course usually taken in tenth grade that examines civic life, citizenship, politics, government, and the foundations of the American political system. Students will explore all aspects of the Constitution, the three branches of

government, and the significant role that all citizens play in our democracy. Heavy emphasis is placed on writing and the role of the Supreme Court and the development of the participatory skills essential for informed, effective and responsible citizenship. Prerequisite: Teacher recommendation

CIVICS (AMERICAN GOVERNMENT AND POLITICS) – AP

SS201YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

This course explores the political theory and everyday practice that direct the daily operation of our government and shape our public policies. The express purpose of this course is to prepare students to take the AP U.S. Government and Politics Exam. (Scheduled in May).The course is taught on a college level, and it requires a substantial amount of reading and preparation for every class. The objectives of this course go beyond a basic analysis of how our government "works." Students will develop a critical understanding of the strengths and weaknesses of the American political system, as well as their rights and responsibilities as citizens. **Prerequisite: teacher recommendation and students are strongly urged to take American Government and Politics and US History.**

COMPARATIVE GOVERNMENT AND POLITICS – AP

SS300YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

The AP course in Comparative Government and Politics introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate to students the importance of global political and economic changes. By comparing the political institutions and practices of wealthy and poor countries, we can begin to understand the political consequences of economic well-being. The six countries that form the core of the AP Comparative Government and Politics course are China, Great Britain, Iran, Mexico, Nigeria, and Russia.

AP CAPSTONE - SEMINAR

ID102YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

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

AP CAPSTONE - RESEARCH

ID103YTDAP **1 Credit - HUMANITIES** **Grades 11-12**

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research-based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.
Prerequisite: Successful completion of AP Seminar

US HISTORY

SS301YTDGE **1 Credit – HUMANITIES** **Grade 11**

Course focuses on the development of America as a modern industrial nation and as a global power. Topics cover events from 1865 to the present. Students are guided in conducting historical research and in developing and defending historical interpretation.

US HISTORY – HONORS

SS301YTDHO **1 Credit - HUMANITIES** **Grade 11**

An honors level focus on the development of America as a modern industrial nation and as a global power. Topics cover events from 1865 to the present. Students are guided in conducting historical research and in developing and defending historical interpretation.

US HISTORY – MAGNET

SS301YMAMA **1 Credit - HUMANITIES** **Grade 11**

A Magnet-level course designed to prepare eleventh grade students with enhanced historical thinking, reading, writing, research and analytical skills in adherence with national and state standards. This course is a comprehensive survey of American history from 1877 to the present. Heavy emphasis is placed on historical document analysis and interpretation through writing, as well as, application of college-level research skills using historical content. **Pre-requisite: World Civilization, American Government and Politics.**

US HISTORY – MAGNET HONORS

SS301YMAMH **1 Credit - HUMANITIES** **Grade 11**

A Magnet honors-level course designed to prepare eleventh grade students with enhanced historical thinking, reading, writing, research and analytical skills in adherence with national and state standards. This course is a comprehensive survey of American history from 1877 to the present. Heavy emphasis is placed on historical secondary source reading, and historical document analysis and interpretation through writing, as well as, application of college-level research skills using historical content. **Prerequisite: World Civilization, American Government and Politics, teacher recommendation.**

HIST-1501: US HISTORY TO 1877 – UCONN ECE

SS311YMAMH **1 Credit - HUMANITIES** **Grade 10-11**

This course is given in cooperation with the Early College Experience Program at the University of Connecticut. The ultimate aim of this year-long course is to provide students with an understanding of the foundations of American society. The student will act as Historian and analyze critical questions of the early republic that include (but is not limited to) our understanding of who was an American and the evolving definitions of freedom and equality over time. The course will follow the major political, economic, social, and cultural developments in the United States from the initial contact of Native Americans, Europeans, and Africans through the end of Reconstruction. **Special note: this is a college-level course, students have the option to enroll in UCONN to receive college credit. This course is required for AP US History/ECE 1502. Prerequisite: teacher recommendation and summer assignments.**

HIST-1502: US HISTORY SINCE 1877 – UCONN ECE (AP US HISTORY)

SS312YTDCL **1 Credit - HUMANITIES** **Grades 11-12**

A full year comprehensive, college-level survey course of United States history that examines the major political, social, economic, diplomatic and military events from 1877 to the present. Students complete a series of sequential units focused around essential questions and evaluated by summative assessments and/or special projects. Students are given frequent practice in document analysis, historical interpretation and expository writing. Multiple-choice tests and quizzes are administered regularly based on the newly designed AP U.S. History exam. Extensive attention is paid to developing college-level

study habits and critical thinking skills. Students independently read both the textbook and supplementary interpretations, define important historical terms and explore key historical themes and ideas. Students have the option to enroll in UCONN which runs concurrently with AP. **Prerequisite: U.S. History to 1877/ECE HIS 1501-833 and teacher recommendation**

INTRO TO PSYCHOLOGY

SS401STDGE 1 Credit - HUMANITIES Grade 12

A one semester comprehensive, college-level survey course 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 within psychology. **Prerequisites: World Civilization and United States History.**

INTRO TO SOCIOLOGY

SS402STDGE 1 Credit - HUMANITIES Grade 12

A one semester elective course for seniors that examines social structure. Concepts, terminology, and the techniques of Sociology are explained so that students can investigate problems that are relevant to young adults and society at large. **Prerequisites: World Civilization and United States History.**

PSYCHOLOGY- MAGNET

SS401YMAMA 1 Credit - HUMANITIES Grade 12

A full year comprehensive, college-level survey course 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 within psychology.

PSYCHOLOGY - AP

SS401YTDAP 1 Credit - HUMANITIES Grades 11-12

A full year comprehensive, college level survey course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are introduced to psychological facts, principles and phenomena associated with each of the major sub-fields within psychology. Students will apply psychological theories to real-life scenarios. Students will be expected to take the AP exam in May, which may lead to college credit. **Prerequisite: Teacher recommendation and mandatory summer assignment.**

PERSPECTIVES ON RACE

SS451STDGE 0.5 Credit - HUMANITIES Grade 10, 11, 12

The Perspectives on Race course is an introductory anthology that examines the history, current issues, and dynamics of select minority groups in the United States. While other books on these topics usually confine their coverage to African-Americans, Hispanics, Asians, Pacific Islanders, and American Indians, this work also looks at Jewish and Muslim Americans. Another unique feature of this book is that it puts the study of diversity and identify politics in a larger context, thus providing students with a broader perspective on these issues.

PERSPECTIVES ON RACE - MAGNET

SS451SMAMA 0.5 Credit - HUMANITIES Grade 10, 11, 12

The Perspectives on Race course is an introductory anthology that examines the history, current issues, and dynamics of select minority groups in the United States. While other books on these topics usually confine their coverage to African-Americans, Hispanics, Asians, Pacific Islanders, and American Indians, this work also looks at Jewish and Muslim Americans. Another unique feature of this book is that it puts the study of diversity and identify politics in a larger context, thus providing students with a

broader perspective on these issues. Magnet students will require written reports addressing one or more significant issues addressed in the course.

PERSPECTIVES ON RACE – MAGNET HONORS

SS451SMAMH 0.5 Credit - HUMANITIES Grade 10, 11, 12

This honors level Perspectives on Race course is an introductory anthology that examines the history, current issues, and dynamics of select minority groups in the United States. While other books on these topics usually confine their coverage to African-Americans, Hispanics, Asians, Pacific Islanders, and American Indians, this work also looks at Jewish and Muslim Americans. Another unique feature of this book is that it puts the study of diversity and identify politics in a larger context, thus providing students with a broader perspective on these issues. Magnet students will require written reports addressing one or more significant issues addressed in the course

LATIN AMERICAN STUDIES

SS424STDGE 0.5 Credit - HUMANITIES Grade 10, 11, 12

The Latin American Studies course is designed to explore the Latin American experience from the pre-colonial period to contemporary 21st Century America. Developing an understanding of historical, geographical, social, political, economic, and cultural of the Central and South American continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the Latin American experiences.

LATIN AMERICAN STUDIES - MAGNET

SS424SMAMA 0.5 Credit - HUMANITIES Grade 10, 11, 12

The Latin American Studies course is designed to explore the Latin American experience from the pre-colonial period to contemporary 21st Century America. Developing an understanding of historical, geographical, social, political, economic, and cultural of the Central and South American continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the Latin American experiences. Magnet students will require written reports addressing one or more significant issues addressed in the course.

LATIN AMERICAN STUDIES - MAGNET HONORS

SS424SMAMH 0.5 Credit - HUMANITIES Grade 10-12

This honors level Latin American Studies course is designed to explore the Latin American experience from the pre-colonial period to contemporary 21st Century America. Developing an understanding of historical, geographical, social, political, economic, and cultural of the Central and South American continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the Latin American experiences. Magnet students will require written reports addressing one or more significant issues addressed in the course.

AFRICAN STUDIES

SS421STDGE 0.5 Credit - HUMANITIES Grade 12

This semester course traces the development of Africa from its ancient origins and includes a survey of the economic, political, and social structures of 20th Century Africa. Modern history, government, and public policy issues of various nations, including Nigeria, Zimbabwe, and The Republic of South Africa will be studied.

AFRICAN AMERICAN STUDIES

SS422STDGE 0.5 Credit - HUMANITIES Grade 10-12

The African American Studies course is designed to develop an understanding of the causes, character, and consequences of the African American experience and its influence on the world, the United States, and the African American community. Beginning with a historical, geographical, social, political, economic, and cultural understanding of the African continent, the course will

provide a descriptive and corrective overview which will introduce the student to the study of the African and African American experiences.

AFRICAN AMERICAN STUDIES - MAGNET

SS422SMAMA 0.5 Credit - HUMANITIES Grade 10-12

The African American Studies course is designed to develop an understanding of the causes, character, and consequences of the African American experience and its influence on the world, the United States, and the African American community. Beginning with a historical, geographical, social, political, economic, and cultural understanding of the African continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the African and African American experiences. Magnet students will require written reports addressing one or more significant issues addressed in the course.

AFRICAN AMERICAN STUDIES - MAGNET HONORS

SS422SMAMH 0.5 Credit - HUMANITIES Grade 10-12

The honors level African American Studies course is designed to develop an understanding of the causes, character, and consequences of the African American experience and its influence on the world, the United States, and the African American community. Beginning with a historical, geographical, social, political, economic, and cultural understanding of the African continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the African and African American experiences. Magnet students will require written reports addressing one or more significant issues addressed in the course.

AMERICAN MILITARY HISTORY

SS305STDGE 0.5 Credit - HUMANITIES Grade 11-12

This course will examine America's military history beginning with the Indian wars of the early 17th century colonial period, through the major wars and conflicts during the 18th, 19th and 20th century to the current escalating military interventions and peace enforcement of the early 21st century. Students will analyze the evolution of the American view of war and the American way of waging war. Special emphasis will be on the "citizen" soldier and the senior members of the military community that helped shape American military theory. Additionally, the course will explore the major technological advances in weapons, communications and medical treatment over time. (Students recommended for this course should be able to succeed at a high academic level.)

INTRODUCTION TO LAW

SS440STDGE 0.5 credit - HUMANITIES Grade 11-12

This is a semester course about the criminal justice process is examined in detail, focusing on the structure of the court system and how it responds to crime. Students will develop an understanding of the core elements of the criminal justice system including law enforcement, the courts, and corrections.

CRIMINAL JUSTICE

SS443STDGE 0.5 credit - HUMANITIES Grade 11-12

Criminal Justice is an introduction to the inner workings of the three significant criminal justice functions in the United Sates, Law Enforcement, Courts and Corrections. The course will give the students and overview of policing in America, the historical development of policing internationally and locally and the implementation of community based policing and criminal investigations. The course will also focus on the realities of enforcement and the apprehension of criminals at the federal, state and local level. The course will also discuss and explain the prosecution, disposition and incarceration of those suspected of committing criminal offenses

WORLD LANGUAGES

FRENCH 1

WL201YTDGE **1 Credit - HUMANITIES** **Grades 9-11**

This is an introductory course that will provide students with foundational knowledge of French culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a French-speaking country. The goal of this course is to communicate about basic topics in French. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

FRENCH 2

WL202YTDGE **1 Credit - HUMANITIES** **Grades 9-12**

This course is a continuation of French 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and French culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in French. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a French-speaking country. **Prerequisite: Successful completion of French 1 or placement approval by the World Language Coordinator.**

FRENCH 3

WL203YTDGE **1 Credit - HUMANITIES** **Grades 10-11**

This course is a continuation of French 2 and increases the student's knowledge of French culture throughout the world. Students will understand more complex syntax in reading and writing in French. The goal of this course is to prepare students for advanced study of the language and provide them with authentic French contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. **Prerequisite: Successful completion of French 2 or placement approval by the World Language Coordinator.**

FRENCH 4

WL204YTDGE **1 Credit - HUMANITIES** **Grades 11-12**

This is a rigorous course designed to provide students the opportunity to achieve French proficiency in the areas of speaking, reading, writing and listening. Students will begin to analyze a variety of French literature and explore perspectives of Francophone cultures. The goal of this course is to prepare students for proficiency of the language and provide them with authentic French contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. **Prerequisite: Successful completion of French 3 or placement approval by the World Language Coordinator.**

SPANISH 1

WL101YTDGE **1 Credit - HUMANITIES** **Grades 9-11**

This is an introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish-speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

SPANISH 2

WL102YTDGE **1 Credit - HUMANITIES** **Grades 9-12**

This course is a continuation of Spanish 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal of this course is prepare students for advanced study of the

language and give them practical skills for travel to a Spanish-speaking country. **Prerequisite: Successful completion of Spanish 1 or placement approval by the World Language Coordinator.**

SPANISH 3

WL103YTDGE 1 Credit - HUMANITIES Grades 10-12

This course is a continuation of Spanish 2 and increases the student's knowledge of Spanish culture throughout the world. Students will understand more complex syntax in reading and writing in Spanish. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. **Prerequisite: Successful completion of Spanish 2 or placement approval by the World Language Coordinator.**

SPANISH 4

WL104YTDGE 1 Credit - HUMANITIES Grades 11-12

This is a rigorous course designed to provide students the opportunity to achieve Spanish proficiency in the areas of: speaking, reading, writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures. The goal of this course is to prepare students for proficiency of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentations, and interpersonal skills. **Prerequisite: Successful completion of Spanish 3 or placement approval by the World Language Coordinator.**

SPANISH 5 - AP

WL105YTDAP 1 Credit - HUMANITIES Grades 11-12

This is a college-level course designed to provide students the opportunity to achieve Spanish proficiency in the areas of: speaking, reading, writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures in critical ways. The goal of this course is to prepare students to achieve proficiency of native Spanish language speakers and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. It is expected that students will take the A.P. exam in May, which may lead to college credit. **Prerequisite: Successful completion of Spanish 4 or placement approval by the World Language Coordinator.**

SPANISH 1 – MAGNET

WL101YMAMA 1 Credit - HUMANITIES Grades 10- 12

This is an introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish-speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

SPANISH 2 – MAGNET

WL102YMAMA 1 Credit - HUMANITIES Grades 10- 12

This course is a continuation of Spanish 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a Spanish-speaking country. **Prerequisite: Successful completion of Spanish 1 or placement approval by the World Language Coordinator.**

SPANISH 3 – MAGNET

WL103YMAMA 1 Credit - HUMANITIES Grades 10-12

This course is a continuation of Spanish 2 and continues to increase the student's knowledge of Spanish culture throughout the world. Students will understand more complex syntax in reading and writing in Spanish. The goal of this course is to prepare

students for advanced study of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. **Prerequisite: Successful completion of Spanish 2 or placement approval by the World Language Coordinator.**

PORTUGUESE 1

WL501YTDGE 1 Credit - HUMANITIES Grades 9- 12

This is an introductory course that will provide students with a foundational knowledge of Portuguese culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Portuguese-speaking country. The goal of this course is to communicate about basic topics in Portuguese. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

PORTUGUESE 2

WL502YTDGE 1 Credit - HUMANITIES Grades 10-12

This course is a continuation of Portuguese 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and Portuguese culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Portuguese. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a Portuguese-speaking country. **Prerequisite: Successful completion of Portuguese 1 or placement approval by the World Language Coordinator.**

PORTUGUESE 3

WL503YTDGE 1 Credit - HUMANITIES Grades 10- 12

This course is a continuation of Portuguese 2 and continues to increase the student's knowledge of Portuguese culture throughout the world. Students will understand more complex syntax in reading and writing in Portuguese. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Portuguese contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills.
Prerequisite: Successful completion of Portuguese 2 or placement approval by the World Language Coordinator.

PORTUGUESE 4

WL504YTDGE 1 Credit - HUMANITIES Grades 10- 12

This is a rigorous course designed to provide students the opportunity to achieve Portuguese proficiency in the areas of: speaking, reading, writing and listening. Students will begin to analyze a variety of Portuguese literature and explore perspectives of
Portuguese cultures. The goal of this course is to prepare students for proficiency of the language and provide them with authentic Portuguese contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills.
Prerequisite: Successful completion of Portuguese 3 or placement approval by the World Language Coordinator.

BILINGUAL SERVICES

ESOL BEGINNER Part 1 and 2

EN010YBLGE 2 Credits - HUMANITIES Grades 9-12

This course is for students who are in the beginning stage of English Language acquisition. Students will focus on developing Basic English vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will begin to

use English in both social and academic settings and in culturally appropriate ways. Students will be placed in this program according to their Proficiency level in English. This class meets for a double period daily and awards twenty points of credit in English towards graduation.

ESOL INTERMEDIATE Part 1 and 2

EN011YBLGE 2 Credits - HUMANITIES Grades 9-12

This course is for students in the intermediate stage of English Language acquisition. Students will focus on developing content-based academic English language skills through vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will be able to use English in both social and academic settings and in culturally appropriate ways. Students will be placed in this program according to their Proficiency level in English. This class meets for a double period daily and awards twenty points of credit in English towards graduation.

ESOL ADVANCED

EN012YBLGE 1 Credit - HUMANITIES Grades 9-12

This course is for students in the advanced stage of English Language acquisition. Students will focus on developing proficient content-based academic English language skills through critical speaking, reading, writing, and listening skills. By developing these skills, students will be able to fluently use English in academic settings. Students will be placed in this program according to their Proficiency level in English. This class meets for a single period daily and awards ten points of credit in English towards graduation.

ESOL-LTSS (LANGUAGE TRANSITION SUPPORT SERVICES)

EN013YBLGE 1 Credit - HUMANITIES Grades 9-12

This course is for students who have completed Beginning, Intermediate, and Advanced ESOL yet require additional English Language instructional support. Students will receive Sheltered English instructional strategies to address all academic content area concepts. By developing these skills, students will use effective academic strategies in English content area courses to achieve success. This class meets for a single period daily and awards ten points of credit in English towards graduation.

ADDITIONAL HIGH SCHOOL PROGRAMS AND COURSES

COMMUNITY SERVICE

AD100STDGE 0.5 Credit - Grades 11-12

Course is designed to encourage students to become contributing community members who recognize the importance of voluntary activity to help other members of the community. Credit may be earned only upon successful completion of 50 hours of unpaid, voluntary work in not-for-profit companies or governmental agencies, and 10 hours of classroom instruction.

CREDIT RECOVERY- Transition Activities Experience

AD099YTDGE 0.5 or 1 credit awarded upon course completion Grades 9-12

Credit recovery is for students who have previously failed a high school course and need to recover credit. Students will work independently on the computer and take the courses through the APEX program. Students will also need to stay after school two days a week to complete the requirements of the course. **Students should discuss all credit recovery options directly with their counselor.**

Mission Statement

To create a culture for passionate investigators to develop solutions for the global community.

Administration

Beth Furnari – Principal, Information Technology and Software Engineering
Joseph (Jay) Lipp – Principal, Aerospace and Hydrospace Engineering
Michael Watson, Ed.D. – Principal, Biotechnology Research and Zoological Sciences
Tanya Bernard - Assistant Principal Fairchild Wheeler Interdistrict Magnet Campus

Guidance Counselors

Ka Man (Mandy) Cheung – School Counselor, Information Technology and Software Engineering
Nadia Pearce – School Counselor, Biotechnology Research and Zoological Sciences
Jacqueline Gardner – School Counselor, Aerospace and Hydrospace Engineering
Victoria Sebourne – School counselor, Fairchild Wheeler Campus (Grades 9 and 10)
Edwin Williams – School Counselor, Fairchild Wheeler Campus (Grades 9 and 10)

Fairchild Wheeler Interdistrict Magnet Campus

The Fairchild Wheeler Interdistrict Magnet Campus - the largest and most ambitious school infrastructure project in Connecticut history - officially opened its doors in August 2013. The visionary interdistrict magnet high school campus is the most environmentally friendly school in the state. Leadership in Energy and Environmental Design (LEED) Gold certified, the building gets close to 120kw of power from wind turbines and solar panels. It has a green roof design and its construction includes eco-friendly building materials with energy-efficient mechanical systems. The completed landscaping will use native vegetation and 76% of the site will be maintained as open space.

This hi-tech campus of three thematically based high schools, which in itself is a teaching and learning tool for students and staff, offers a 21st century STEM (Science, Technology, Engineering and Math) project-based curriculum focusing on three areas: Information Technology/Software Engineering, Biotechnology/Zoological science and Physical Science, Math and Aerospace/Hydrospace Engineering. The Information Technology program will work in conjunction with Sacred Heart University; the Biotechnology Research and Zoological science program will work in conjunction with The University of Connecticut, the Beardsley Zoo and Mystic Aquarium; and the Physical Science, Math and Aerospace/Hydrospace Engineering program will offer learning and internship programs with the University of Bridgeport, the Discovery Museum, Sikorsky, Kongsberg and other area companies. Partnerships with the three universities provide significant opportunities for students to acquire college credits. Seventy percent (70%) of the students come from Bridgeport and the other 30% come from the surrounding communities.

Fairchild Wheeler Interdistrict Magnet Schools

Aerospace and Hydrospace Engineering

This thematic magnet school provides students the practical application of science and math to solve problems. Learning to use software, interacting with regional industry and collaborating with state and local universities, students will research, design and develop creative solutions for exploration and discovery.

Biotechnology Research and Zoological Sciences

This thematic magnet school provides students the practical application of science and math to solve problems in courses such as Genetics, Ecophysiology, and Molecular Biology and will prepare students for an array of careers such as medicine and healthcare, environmental studies, chemical engineering and pharmaceuticals, and veterinary medicine and animal care.

Information Technology and Software Engineering

This thematic magnet school provides students the practical application of science and math to solve problems. Students will be engaged in the application of a systematic, disciplined, quantifiable approach to the design, development, operation and maintenance of software for careers in such fields as science modeling, gaming, animation, simulation and theater arts.

Aerospace / Hydrospace Engineering & Physical Sciences Discreet Magnet Courses

APPLIED FLUIDS MECHANICS AND PROPERTIES - MAGNET

SC320YMAMA 1 Credit - STEM Grade 9

An introduction to the properties, terminology, concepts, and basic laws of fluid statics and dynamics, gas laws, thermodynamics and heat transfer.

Prerequisite: N/A

APPLIED FLUIDS MECHANICS AND PROPERTIES — MAGNET HONORS

SC320YMAMH 1 Credit - STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Honors Contract with Teacher Recommendation

AIRCRAFT STRUCTURE AND DESIGN - MAGNET

SC331YMAMA 1 Credit - STEM Grade 10

Introduction to analysis and design of aircraft structures, including design criteria, structural design concepts, loads and load paths, metallic and composite materials; static strength, durability and damage tolerance; practical design considerations. Analysis exercises and a design project are included to involve students in the learning process. **Prerequisites: Successful completion of Algebra I**

AIRCRAFT STRUCTURE AND DESIGN — MAGNET HONORS

SC331YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Successful completion of Algebra I + Honors Contract with Teacher Recommendation

AIR, SPACE, OCEAN AND EARTH SCIENCE - MAGNET

SC141YMAMA 1 Credit - STEM Grade 9

This course will look at the Natural Science of the Earth's atmosphere, galaxy, oceans and geology. The units will utilize project-based learning to allow the students to become experts in one area of each unit.

AIR, SPACE, OCEAN AND EARTH SCIENCE — MAGNET HONORS

SC3141MAMH 1 Credit - STEM Grade 9

This course will look at the Natural Science of the Earth's atmosphere, galaxy, oceans and geology. The units will utilize project-based learning to allow the students to become experts in one area of each unit.

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

NAVAL ARCHITECTURE - MAGNET

SC332YMAMA 1 Credit - STEM Grade 10

Covers the principles of intact and damaged stability and trim, longitudinal strength of ship structures. Also, introduces ship resistance and ship powering calculations. Covers basic ship stability. **Prerequisites: Successful completion of Algebra I**

NAVAL ARCHITECTURE — MAGNET HONORS

SC332YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Successful completion of Algebra I + Honors Contract with Teacher Recommendation

AEROSPACE APPLIED MECHANICS - MAGNET

SC321YMAMA 1 Credit - STEM Grade 10

Fundamentals of Aircraft statics using vector methods. Students will learn resolution and composition of forces; equilibrium of force systems; analysis of forces acting on structures and machines; centroids; moment of inertia. Analysis exercises and a design project are included to involve students in the learning process. **Prerequisite: Successful completion of Algebra II**

AEROSPACE APPLIED MECHANICS - MAGNET HONORS

SC321YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Successful completion of Algebra II + Honors Contract with Teacher Recommendation

HYDROSPACE APPLIED MECHANICS – MAGNET

SC322YMAMA 1 Credit - STEM Grade 10

Fundamentals of watercraft statics using vector methods. Students will learn resolution and composition of forces; equilibrium of force systems; analysis of forces acting on structures and machines; centroids; moment of inertia. Analysis exercises and a design project are included to involve students in the learning process. **Prerequisite: Successful completion of Algebra II**

HYDROSPACE APPLIED MECHANICS - MAGNET HONORS

SC322YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Successful completion of Algebra II + Honors Contract with Teacher Recommendation

AVIATION METEOROLOGY - MAGNET

SC104YMAMA 1 Credit - STEM Grade 10

Initial course in meteorology for flight students and aviation professionals. Includes meteorological codes, charts and aviation bulletins, and identification of potentially hazardous in-flight weather conditions. Also addresses atmosphere circulation.
Prerequisite: Applied fluids and/or physical science

AVIATION METEOROLOGY- MAGNET HONORS

SC104YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

BUSINESS MATH MAGNET

MA507SMAMA 1 Credit - STEM Grade 10-12

This course develops a strong mathematics foundation focusing on many topics found in business and the real world. Students will learn and apply the following skills to a variety of business-related and everyday real-world tasks: thinking critically, approaches to problem solving, numbers in the real world, managing money, statistical reasoning, modeling with geometry, mathematics and the arts, and mathematics and politics.

Prerequisite Course: N/A

MARINE RESOURCE DEVELOPMENT - MAGNET

SC333YMAMA 1 Credit - STEM Grade 11

Examines trends and issues that impact the world's coastal and ocean resources. Scientific, economic, social and political aspects of issues to evaluate and illustrate the challenge of linking good scientific data with regulatory and management decisions.

Prerequisites: Successful completion Biology

MARINE RESOURCE DEVELOPMENT - MAGNET HONORS

SC333YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Successful completion of Biology + Honors Contract with Teacher Recommendation

HE PROPULSION SYSTEMS & CONTROL SURFACES - MAGNET

SC336YMAMA 1 Credit - STEM Grade 12

Students will study the integration and application of ship systems to include, propulsion systems, power generation, positioning and navigation systems, safety systems and auxiliary systems. Analysis exercises and a design project are included to involve students in the learning process.

Prerequisite: Successful completion of Naval Architecture

HE PROPULSION SYSTEMS & CONTROL SURFACES - MAGNET HONORS

SC336YMAMH 1 Credit - STEM Grade 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Successful completion of Naval Architecture + Honors Contract with Teacher Recommendation

AE PROPULSION SYSTEMS & CONTROL SURFACES - MAGNET

SC335YMAMA **1 Credit - STEM** **Grade 12**

Students will study the integration and application of aircraft and spacecraft systems to include, propulsion systems, power generation, positioning and navigation systems, safety systems and auxiliary systems. Analysis exercises and a design project are included to involve students in the learning process.

Prerequisite: Successful completion of Aircraft Structure and Design

AE PROPULSION SYSTEMS & CONTROL SURFACES - MAGNET HONORS

SC335YMAMH **1 Credit - STEM** **Grade 12**

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Successful completion of
to Aircraft Structure and Design + Honors Contract with Teacher Recommendation

AIRCRAFT STABILITY & CONTROL - MAGNET

SC334YMAMA **1 Credit - STEM** **Grade 12**

This class includes a brief review of applied aerodynamics and modern approaches in aircraft stability and control. Topics covered include static stability and trim; stability derivatives and characteristic longitudinal and lateral-directional motions; and physical effects of the wing, fuselage, and tail on aircraft motion. Control methods and systems are discussed, with emphasis on flight vehicle stabilization by classical and modern control techniques; time and frequency domain analysis of control system performance; and human-pilot models and pilot-in-the-loop controls with applications. Other topics covered include V/STOL stability, dynamics, and control during transition from hover to forward flight; parameter sensitivity; and handling quality analysis of aircraft through variable flight conditions. There will be a brief discussion of motion at high angles-of-attack, roll coupling, and other nonlinear flight regimes.

Prerequisite: Successful completion of Aircraft Structure and Design

AIRCRAFT STABILITY & CONTROL - MAGNET HONORS

SC334YMAMH **1 Credit - STEM** **Grade 12**

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Successful completion of Aircraft Structure and Design + Honors Contract with Teacher Recommendation

OCEAN ENGINEERING - MAGNET

SC337YMAMA **1 Credit - STEM** **Grade 12**

This course is an introduction to the fundamental aspects of ocean engineering necessary for exploring, observing, and utilizing the oceans. Hands-on projects focus on instrumentation in the marine environment and the design of ocean observatories for ocean monitoring and exploration. Topics include acoustics, sound speed and refraction, sounds generated by ships and marine animals, sonar systems and their principles of operation, hydrostatic behavior of floating and submerged bodies geared towards ocean vehicle design, stability of ocean vessels, and the application of instrumentation and electronics in the marine environment. Students work with sensor systems and deploy them in the field to gather and analyze real world data. **Prerequisite: Successful completion of Naval Architecture**

OCEAN ENGINEERING – MAGNET HONORS

SC337YMAMH **1 Credit - STEM** **Grade 12**

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Successful completion of Naval Architecture + Honors Contract with Teacher Recommendation

MATH FOR ENGINEERS - MAGNET

MA502YMAMA **1 Credit - STEM** **Grade 9**

This math course focuses on having students analyze thematic problems and relevant data in the world of engineering. Students will apply statistical analysis focusing around central tendency, distributions, correlation and causality using Algebraic concepts and mathematical technology and software to solve real world application.

MATH FOR ENGINEERS - MAGNET HONORS

MA502YMAMH **1 Credit - STEM** **Grade 9**

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

2nd PROGRAMMING LANGUAGE - PROGRAMMING FOR ENGINEERS - MAGNET

CS140YMAMA **1 Credit - STEM** **Grade 10-12**

The course will introduce students to basic computer programming concepts using the C language. The student will learn to write programs which reads user input or file data, displays resulting data to the computer monitor and/or writing data to a file. Particular emphasis will be stressed on writing clear and concise code with comments, learning programming debugging methods, writing and using functions correctly, and other important programming techniques. **Prerequisite: Algebra 2**

2nd PROGRAMMING LANGUAGE - PROGRAMMING FOR ENGINEERS - MAGNET HONORS

CS1407MAMH **1 Credit - STEM** **Grade 10-12**

In addition to the requirements of the regular course students will be required to complete additional audio based problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Algebra 2 + Honors Contract with Teacher Recommendation**

HISTORY OF AVIATION - MAGNET

SS107YMAMA **1 Credit - HUMANITIES** **Grades 11-12**

From Orville Wright's first flight of 120 feet in 1903 to the 240,000-mile voyage to the moon by Apollo 11, heavier-than-air flying machines like the airplane and the spaceship have captured humankind's collective imagination, our awe, joy, and fear, in a way that few engineering achievements—or any kind of achievement, for that matter—ever have. The history of aviation is a rich, exciting story full of interesting characters, fantastic events, and innovative technologies. This course surveys that history, beginning with the scientific discoveries of the seventeenth, eighteenth, and nineteenth centuries that laid the foundations of aerodynamic theory and ending with the far-reaching goal of NASA to fly humans to Mars in the twenty-first one, with special emphasis on the years between the Wright brothers' first experiments with flight at Kitty Hawk in 1900 and the Apollo 11 mission to the moon in 1969. It also includes the contributions to aviation made by women and people of color, as well as the story of Gustave Whitehead's controversial "first" flight, which is the subject of a memorial fountain and sculpture in a traffic island in Bridgeport.

HISTORY OF AVIATION - MAGNET HONORS

SS107YMAMH 1 Credit - HUMANITIES Grades 11-12

From Orville Wright's first flight of 120 feet in 1903 to the 240,000-mile voyage to the moon by Apollo 11, heavier-than-air flying machines like the airplane and the spaceship have captured humankind's collective imagination, our awe, joy, and fear, in a way that few engineering achievements—or any kind of achievement, for that matter—ever have. The history of aviation is a rich, exciting story full of interesting characters, fantastic events, and innovative technologies. This course surveys that history, beginning with the scientific discoveries of the seventeenth, eighteenth, and nineteenth centuries that laid the foundations of aerodynamic theory and ending with the far-reaching goal of NASA to fly humans to Mars in the twenty-first one, with special emphasis on the years between the Wright brothers' first experiments with flight at Kitty Hawk in 1900 and the Apollo 11 mission to the moon in 1969. It also includes the contributions to aviation made by women and people of color, as well as the story of Gustave Whitehead's controversial "first" flight, which is the subject of a memorial fountain and sculpture in a traffic island in Bridgeport. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

SCIENCE AND TECHNOLOGY OF THE COLD WAR - MAGNET

SS304YMAMA 1 Credit - HUMANITIES Grades 11-12

In this science and technology course of the Cold War, students will investigate, analyze and explore the political ideologies that fueled the battle for technological superiority between the United States and the Soviet Union during the Cold War.

SCIENCE AND TECHNOLOGY OF THE COLD WAR - MAGNET HONORS

SS304YMAMH 1 Credit - HUMANITIES Grades 11-12

In this science and technology course of the Cold War, students will investigate, analyze and explore the political ideologies that fueled the battle for technological superiority between the United States and the Soviet Union during the Cold War. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

CAPSTONE I – MAGNET

ID102YMAMA 1 Credit – MASTRY BASED Grade 11

The Capstone Program is a two course program designed for 11th grade students to apply a concentrated thematic, interdisciplinary approach to STEM education. The Capstone Program will consist of a long-term investigative project that culminates in a final product, presentation, or performance. Successful completion will be determined by their project outcome, a constructed project depicting the conceptual solution and a presentation to a selected audience. AP Seminar is foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances

PROJECT LEAD THE WAY

PLTW – CS ESSENTIALS - MAGNET

CS166YMAMA 1 Credit - STEM Grade 9

In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They will apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals due to create products that address topics and problems important to them.

PLTW – CS ESSENTIALS - MAGNET HONORS

CS166YMAMH 1 Credit - STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

PLTW - INTRODUCTION TO ENGINEERING DESIGN - MAGNET

TE500YMAMA 1 Credit - STEM Grade 9

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software and use an engineering notebook to document their work. **Prerequisite: N/A**

PLTW - INTRODUCTION TO ENGINEERING DESIGN - MAGNET HONORS

TE500YMAMH 1 Credit - STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

PLTW - PRINCIPLES OF ENGINEERING - MAGNET

TE501YMAMA 1 Credit - STEM Grade 10

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. **Prerequisite: Successful completion of PLTW-Introduction to Engineering Design and Algebra 1**

PLTW - PRINCIPLES OF ENGINEERING - MAGNET HONORS

TE501YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of PLTW-Introduction to Engineering Design and Algebra 1+ Honors Contract with Teacher Recommendation**

PLTW - AEROSPACE ENGINEERING - MAGNET

TE503YMAMA 1 Credit - STEM Grade 11

This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles. **Prerequisite: Successful completion of PLTW — Principles of Engineering**

PLTW - AEROSPACE ENGINEERING - MAGNET HONORS

TE503YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Principles of Engineering + Honors Contract with Teacher Recommendation

PLTW - CIVIL ENGINEERING AND ARCHITECTURE - MAGNET

TE504YMAMA 1 Credit - STEM Grade 11

Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architecture design software. Some students have seen these designs come to life through partnerships with local housing organizations
Prerequisite: Successful completion of PLTW — Principles of Engineering

PLTW - CIVIL ENGINEERING AND ARCHITECTURE - MAGNET HONORS

TE504YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Successful completion of PLTW — Principles of Engineering + Honors Contract with Teacher Recommendation

PLTW - ENGINEERING DESIGN AND DEVELOPMENT - MAGNET

TE502YMAMA 1 Credit - STEM Grade 12

The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development (EDD) as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD ready to take on any post-secondary program or career. **Prerequisite: Successful completion PLTW — Principles of Engineering**

PLTW - ENGINEERING DESIGN AND DEVELOPMENT - MAGNET HONORS

TE502YMAMH 1 Credit - STEM Grade 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Successful completion PLTW — Principles of Engineering + Honors Contract with Teacher Recommendation

PLTW - DIGITAL ELECTRONICS - MAGNET

TE505YMAMA 1 Credit - STEM Grades 10-12

From smart phones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

Prerequisite: N/A

PLTW - DIGITAL ELECTRONICS - MAGNET HONORS

TE505YMAMH 1 Credit - STEM Grades 10-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

PLTW - COMPUTER INTEGRATED MANUFACTURING - MAGNET

TE506YMAMA 1 Credit - STEM Grade 12

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

Prerequisite: Successful completion of PLTW-Introduction to Engineering Design

PLTW - COMPUTER INTEGRATED MANUFACTURING - MAGNET HONORS

TE506YMAMH 1 Credit - STEM Grade 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course.
A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of PLTW-Introduction to Engineering Design + Honors Contract with Teacher Recommendation**

Biotechnology Research and Zoological Sciences Discreet Magnet Courses

ECOPHYSIOLOGY - MAGNET

SC313YMAMA 1 Credit - STEM Grade 9

The course will introduce students to basic vertebrate anatomy with an emphasis on function and functional adaptations across animals in different environments. Information will be explored via class discussions, on-line work through course website, note-taking, analysis of peer-reviewed scientific journal articles, excerpts from college-level texts, and hands-on approaches. Each unit will expose students to "case studies" involving different animals. Students will have the chance to observe both live and preserved vertebrate materials and to do simple experiments that demonstrate basic principles such as heat transfer and osmosis. Students will also be engaged in a long-term project wherein they analyze the organisms and ecosystems that exist on the Fairchild Wheeler Campus and create a final project which is intended for public distribution. Final project will be chosen by students and may include a map of the campus, survey of flora/fauna, trail guide, biodiversity analysis, or website creation. This course is the fundamental magnet themed course and is required for both Zoology and Biotechnology Pathways.

ECOPHYSIOLOGY— MAGNET HONORS

SC313YMAMH 1 Credit – STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

EVOLUTION - MAGNET

SC121YMAMA 1 Credit - STEM Grade 10

Students will be introduced to the Theory of Evolution and its history. Further exploration will investigate the evidence for evolution, how it works, and how it impacts our everyday lives (agriculture, conservation, medicine.) The processes and mechanisms of evolution, including population genetics, speciation, patterns of evolution and molecular evolution will be explored. Students will learn through hands on projects, making posters, and doing presentations based on their research, as well as exploring actual case studies.

Prerequisite: Successful completion of Biology

EVOLUTION – MAGNET HONORS

SC121YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of Biology + Honors Contract with Teacher Recommendation**

HUMAN PHYSIOLOGY - MAGNET

SC311YMAMA 1 Credit - STEM Grades 10-11

Human Physiology is a course designed to give students a comprehensive introduction to the scientific concepts and laboratory research techniques currently used in the field of human physiology. It is an extensive and laboratory-based course that integrates the study of the structures and functions of the human body. The study will begin with the basic levels of organization of the human body including cells and tissues and will progress to organs and human systems and their various functions. Furthermore, this course will include the study of clinical terminology, diseases and tests conducted for diagnostic purposes, and the application of these concepts to modern health practices, issues, and their future careers. Finally, emphasis will also be placed on the development of techniques of carrying out laboratory work, how to think critically, and acquire appropriate skills of writing a report of all the physiology activities carried out in the laboratory. **Prerequisite: Successful completion of Biology**

HUMAN PHYSIOLOGY - MAGNET HONORS

SC311YMAMH 1 Credit - STEM Grades 10-11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of Biology + Honors Contract with Teacher Recommendation**

GENERAL PARASITOLOGY/INVASIVE SPECIES - MAGNET

SC123YMAMA 1 Credit - STEM Grades 10-11

This course is a survey of animal parasites, using selected taxa to illustrate concepts and patterns of parasite/host evolution, systematics, physiology, morphology, life history, ecology and behavior. Lectures will concentrate on organizing and interpreting information about parasitic animals to illustrate (1) evolutionary relationships within and among taxa, and (2) adaptations that allow species to pursue parasitic life cycles.

Prerequisite: Successful completion of Biology

GENERAL PARASITOLOGY/INVASIVE SPECIES - MAGNET HONORS

SC123YMAMH 1 Credit - STEM Grades 10-11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of Biology + Honors Contract with Teacher Recommendation**

BIOTECHNOLOGY - MAGNET

SC210YMAMA 1 Credit - STEM Grades 10-11

Biotechnology is a course designed to give students a comprehensive introduction to the scientific concepts and laboratory research techniques currently used in the field of biotechnology. Students attain knowledge about the field of biotechnology and deeper understanding of the biological concepts used. In addition, students develop the laboratory, critical thinking, and communication skills currently used in the biotechnology industry. Furthermore, students will explore and evaluate career opportunities in the field of biotechnology through extensive readings, laboratory experiments, class discussions, and research projects. The objectives covered in this course are both academic and technical in nature and are presented in a progressively rigorous manner.

Prerequisites: Successful completion of Biology, Genetics and/or Human Physiology

BIOTECHNOLOGY - MAGNET HONORS

SC210YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisites: Honors Contract with Teacher Recommendation**

PRINCIPLES OF ANIMAL SCIENCE I - MAGNET

SC134YMAMA 1 Credit - STEM Grade 10-11

This course is designed to introduce students to basic animal classification, including vertebrates and invertebrates, basic animal anatomy and physiology, as well as basic animal husbandry with focus on exotic animals and local species. Students will receive practical training on animal handling and husbandry in this course. Students must demonstrate a solid foundation in biological sciences and have an ability to work independently and collaboratively. **Prerequisites: Completion of Biology**

PRINCIPLES OF ANIMAL SCIENCE I - MAGNET HONORS

SC134YMAMH 1 Credit - STEM Grade 10-11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

PRINCIPLES OF ANIMAL SCIENCE II - MAGNET

SC135YMAMA 1 Credit - STEM Grade 10-11

This course is designed as the second course in the animal science series. The scope of this course includes an in-depth focus on animal nutrition, behavior, reproduction, disease and disease management. Students in this course will be able to provide care plans for managing groups of animals and troubleshoot illness, nutritional problems, and behavioral issues that may arise. Students must be comfortable handling animals. Students must be able to work independently and collaboratively.
Prerequisites: Completion of Principles of Animal Science I

PRINCIPLES OF ANIMAL SCIENCE II - MAGNET HONORS

SC135YMAMH 1 Credit - STEM Grade 10-11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

GENETICS - MAGNET

SC410YMAMA 1 Credit - STEM Grade 11-12

Students will explore the fundamental properties of inheritance in eukaryotic organisms, with an emphasis on man. Examples throughout other vertebrate taxa will also be encountered. Students will develop a working understanding and application of various concepts in the study of genetics. These concepts include the nature, organization, transmission, expression, recombination, and function of genetic materials. An in depth understanding of the genetic characterization of populations is the primary goal of this course. Fundamental knowledge of biological concepts including classification, speciation, and adaptations will assure student success in the study of genetics. This course will prepare students for advanced study in the Biotechnology and Genetics Laboratory courses.
Prerequisites: Successful completion of Biology and/or Human Physiology

GENETICS - MAGNET HONORS

SC410YMAMH 1 Credit - STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisites: Successful completion of Biology and/or Human Physiology + Honors Contract with Teacher Recommendation**

GENETICS LAB - MAGNET

SC411YMAMA 1 Credit - STEM Grade 11

This intensive laboratory course follows Genetics/Molecular Biology in the course sequence. Students are exposed to more technical and lab exercises as they explore historical findings from Mendelian Genetics to the Human Genome Project.
Prerequisite: Successful completion of Genetics

GENETICS LAB - MAGNET HONORS

SC411YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of Genetics + Honors Contract with Teacher Recommendation**

PLANTS IN HUMAN MEDICINE - MAGNET

SC125YMAMA 1 Credit - STEM Grade 11 - 12

This course offers a basic foundation and understanding of the principles of herbal medicine within the context of historical and modern health care; with an emphasis on those botanicals whose uses have been well documented through modern scientific study. It is intended to introduce students to the traditional culturally based use of natural plant medicine, along with an understanding of the vast amount of scientific, evidence based studies and clinical research on the efficacy and safety of plant medicine. In addition, it will expose students to the concept of careers in a number of herbal related occupations within the health food retail, manufacturing and holistic health industries. The student will be well informed about the regulation of herbal products, the primary functions of key botanicals in popular use, herbal product quality control and the basics of herbal safety. **Prerequisite: successful completion of Biology**

PLANTS IN HUMAN MEDICINE - MAGNET HONORS

SC125YMAMH 1 Credit - STEM Grade 11 - 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

ANIMALS IN CAPTIVITY AND ZOOLOGICAL MANAGEMENT - MAGNET

SC317YMAMA 1 Credit - STEM Grade 11-12

This course is designed to introduce students to the history of zoos and the importance that zoos have on the survival of many endangered species through conservation efforts. Students will master the AZA requirements that are put in place to uphold the welfare of all animals, including the exhibit design requirements. The course will be in conjunction with the Beardsley Zoo and student will earn volunteer hours after completion. Students must demonstrate a solid foundation in biological sciences, and an ability to work both independently and collaboratively to take this course. **Prerequisite: Completion of Principles of Animal Science I and II with a B or better. 20 hours of volunteer service at Beardsley Zoo or SeaQuest Trumbull (can be completed concurrently with the course)**

ANIMALS IN CAPTIVITY AND ZOOLOGICAL MANAGEMENT – MAGNET HONORS

SC317YMAMH 1 Credit - STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

DRUGS OF ABUSE AND ADDICTION – MAGNET

SC216YMAMA 1 Credit – STEM Grade 11

This course will focus on selective areas of neuropharmacology. The course will include lectures on areas of basic neurobiology that underlie the actions of important pharmacological and recreational drugs and chemical agents as they relate to current efforts to a.) understand the chemical, physiological and psychological roots of addiction and b) relate knowledge to current efforts for developing novel therapeutic strategies for the assessment, treatment, and prevention of addiction disorders. **Prerequisite: successful completion of Biology, Neurobiology recommended**

DRUGS OF ABUSE AND ADDICTION – MAGNET HONORS

SC216YMAMH 1 Credit – STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

DNA STRUCTURE AND FUNCTION - MAGNET

SC413YMAMA 1 Credit - STEM Grade 11

This course will give students a comprehensive introduction to the DNA molecule — Deoxyribonucleic acid, the molecule of life. The purpose of this course is to promote students' understanding of the relationship between the DNA structure and its function. Molecular biology is a branch of science that focuses on the pathway from DNA to the protein it encodes. The 'central dogma' of molecular biology lies in the pathway: DNA -> messenger RNA -> protein. With this foundation, students will be better equipped to make sense of the modern technological advances in molecular biology and biotechnology, with their implications on medicine and society. In addition, students will be empowered with the skills of critical and logical thinking, which will be a tool they will use both inside and outside of the classroom. Students will explore the fundamental properties of inheritance in eukaryotic organisms, with an emphasis on man. Examples throughout other vertebrate taxa will also be encountered. Students will develop a working understanding and application of various concepts in the study of genetics. This course prepares students for the AMGEN Biotechnology course and other advanced molecular laboratories. **Prerequisite: Successful completion of Genetics + Honors Contract with Teacher Recommendation**

DNA STRUCTURE AND FUNCTION - MAGNET HONORS

SC413YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of Genetics + Honors Contract with Teacher Recommendation**

MICROBIOLOGY - MAGNET

SC213YMAMA 1 Credit - STEM Grade 12

A course covering basic aspects of microbiology including sterilization, disinfection, action of antimicrobial chemotherapeutic agents, concepts of infection and immunity and the study of certain selected infectious agents. **Prerequisite: successful completion of Biology**

MICROBIOLOGY - MAGNET HONORS

SC213YMAMH 1 Credit - STEM Grade 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

MOLECULAR BIOLOGY - MAGNET

SC214YMAMA 1 Credit - STEM Grade 12

The study of biology on a molecular level including the structure, function, and makeup of biologically important molecules such as DNA, RNA, and proteins. The field of molecular biology involves many other areas of biology such as biochemistry and genetics. **Prerequisite: successful completion of Biology and Genetics**

MOLECULAR BIOLOGY - MAGNET HONORS

SC214YMAMH 1 Credit - STEM Grade 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

INTRODUCTION TO PHARMACOLOGY – MAGNET

SC420 MAMA 1 Credit – STEM Grade 10

The course introduces students to the pharmacology pathway. Students will be able to demonstrate and apply the basic principles chemistry and biology and their role in pharmacokinetics and pharmacodynamics. Important topics in chemistry and biology include but are not limited to: acid-base chemistry, molecule polarity, oxidation-reduction reactions, enzymes, cell structure-function, molecular transport across bio-membranes, DNA structure and function and the circulatory system. **Prerequisite: successful completion of Biology and chemistry (or taking concurrently)**

INTRODUCTION TO PHARMACOLOGY – MAGNET HONORS

SC420 YMAMH 1 Credit – STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

BASIC PHARMACOLOGY – MAGNET

SC421YMAMA 1 Credit – STEM Grade 11

This course introduces students to the principles of pharmacology by providing them with an understanding of biophysics, biochemistry, and physiology as they relate to mechanisms of drug actions on the body and the treatment of human patients. Students will be able to describe the basic principles of pharmacokinetics and pharmacodynamics that affect drug effectiveness by highlighting the various routes of drug administration and factors underlying absorption, distribution, metabolism and elimination of drugs in the body. Students will understand how drugs are used to affect and interact with physiologic systems in the treatment of disease and can describe potential side effects including drug toxicity. Topics covered include the pharmacological principles of the nervous system, cardiovascular system and inflammation. Students will understand the pharmacology and clinical use of the most commonly prescribed drugs in use at this time for these 3 systems. Finally, students will have a grasp about the legal process involved in drug discovery and drug evaluation including the different phases of clinical trials.

BASIC PHARMACOLOGY – MAGNET HONORS

SC421YMAMH 1 Credit – STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

PHARMACOLOGY OF INFECTIOUS DISEASES – MAGNET

SC422YMAMA 1 Credit – STEM Grade 12

This course offers a basic understanding of infectious or communicable diseases that are associated with biological agents that include viruses, bacteria, and parasites. Students will also identify mechanisms of diagnosis and potential pharmacological interventions and measures to prevent and treat infection. Select lectures/projects will address: a) the impact of infectious diseases on the human populations locally and globally and the emergence of public health, b) the immune system, its response to pathogens, and consequences of vaccination, and c) the classification and identification of infectious diseases based on symptoms and pathology. **Prerequisite: successful completion of Biology, Genetics recommended**

PHARMACOLOGY OF INFECTIOUS DISEASES – MAGNET HONORS

SC422YMAMH 1 Credit – STEM Grade 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

NEUROBIOLOGY - MAGNET

SC215YMAMA 1 Credit - STEM Grade 12

Neurobiology is a branch of biology that focuses on the structure and function of the nervous system in animals and humans. It is an important field, and one that has proven to be critical for the understanding of animal and human physiology. **Prerequisite: successful completion of Biology and Human Physiology**

NEUROBIOLOGY - MAGNET HONORS

SC215YMAMH 1 Credit - STEM Grade 12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

MATH IN BIOTECHNOLOGY - MAGNET

MA504YMAMA 1 Credit - STEM Grade 9

This math course focuses on having students analyze thematic problems and relevant data in the world of science. The application of the scientific method to real world problems and developing analytical solutions to solve these problems will be an integral part of this course. Students will apply statistical analysis focusing around central tendency, distributions, correlation and causality using Algebraic concepts and mathematical technology and software to real world application.

MATH IN BIOTECHNOLOGY- MAGNET HONORS

MA504YMAMH 1 Credit - STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation

AP PSYCHOLOGY – Animal Behavior/Psychology of Evolution

SS401YTDAP 1 Credit - STEM Grade 11-12

The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence and effectively communicate ideas. This course will also focus on the study of the causes, origins and evolution of animal behavior emphasizing field observations and experiments on the behavior of a variety of animal groups. The course also spans the history of animal/human interaction from domestication to research. Students will be expected to take the A.P. exam in May.

GENERAL PSYCHOLOGY: (PSY E111 HCC ECE)

SS210YDECL 1 Credit - STEM Grade 11-12

An introduction to the basic principles, findings, and methods of study relating to human behavior. Topics include History/research methodology, biological basis of behavior, motivation, learning, memory, states of consciousness, and developmental psychology. The course is designed to provide a foundation for more advanced study in psychology and related fields. **Prerequisite: Biology and Chemistry with grade C or better and teacher recommendation(s) (3 College Credits Possible)**

CAPSTONE I - MAGNET

ID102YMAMA 1 Credit – MASTERY BASED Grade 11

The Capstone Program is a two-course program designed for 11th grade students to apply a concentrated thematic, interdisciplinary approach to STEM education. The Capstone Program will consist of a long-term investigative project that culminates in a final product, presentation, or performance. Successful completion will be determined by their project outcome, a constructed project depicting the conceptual solution and a presentation to a selected audience. AP Seminar is foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances

CAPSTONE II - MAGNET

ID103YMAMA 1 Credit – MASTERY BASED Grade 12

The Capstone Program is a two-course program designed for 12th grade students to apply a concentrated thematic, interdisciplinary approach to STEM education. The Capstone Program will consist of a long-term investigative project that culminates in a final product, presentation, or performance. Successful completion will be determined by their project outcome, a constructed project depicting the conceptual solution and a presentation to a selected audience.

Information Technology
& Software Engineering
AT THE FAIRCHILD WHEELER CAMPUS

Vision

The Information Technology and Software Engineering High School is an institution that fosters an inclusive campus culture that embraces diversity, civility and multiculturalism, will prepare its graduates to solve problems and apply new technologies within an interconnected and evolving global environment.

Core Beliefs

- Our environment values and models character, academics and relationships
- Work to consistently safeguard the safety, dignity and well-being of all its members
- A static curriculum is a dying curriculum. Revision and development with field experts ensures that the education we provide is current and thematic based.
- Provide our teachers with high quality, discrete magnet professional development.
- Diverse backgrounds and ideas are crucial to academic excellence
- All children have the potential to achieve if provided with individualized instruction.
- College and career are by-products of our school and children must have experiences with both
- There is learning in failure

Mission

The mission of The Information Technology and Software Engineering High School is to build an academic community whose members have diverse cultures, backgrounds and life experiences and educate those students in ways that lead to fulfilling careers and to create a culture for passionate investigators to develop solutions for the global community

Information Technology and Software Engineering High School Discrete Magnet Courses:

MATH FOR INFO TECH

MA503YMAMA 1 Credit - STEM Grades 9- 10

In this introductory course students where students will be introduced to applied math skills and concepts in order to be adequately be prepared for the rigor of higher level math and discrete magnet courses.

MATH FOR INFO TECH - HONORS

MA503YMAMAH 1 Credit - STEM Grades 9- 10

In addition to the requirements of the regular course students will be required to complete additional mathematical challenges or projects that delve deeper into the material covered within the class. Independent application of mathematical concepts is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Honors Contract with Teacher Recommendation

INTRODUCTION TO JAVA - MAGNET

CS111YMAMA 1 Credit - STEM Grade 9

This course introduces students to a variety of topics in computer science including creating web pages with Google Sites, using Google Docs and Google Forms, Imaging with GIMP. This course also introduces programming with HTML, Scratch, and Java.

INTRODUCTION TO JAVA— MAGNET HONORS

CS111YMAMH 1 Credit - STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: N/A

DIGITAL DESIGN I - MAGNET

CS131YMAMA 1 Credit - STEM Grade 10

Digital Design is the study of media production, hardware and circuitry that power small and large devices. This course presents the basic to intermediate concepts that offer exposure to design that lead to mobile devices, computer systems, robotics and other high-end electronics and media tools that humans interface with. This course further addresses Interoperability between hardware and software.

Prerequisite: Successful completion of Introduction to Java

DIGITAL DESIGN I — MAGNET HONORS

CS131YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Successful completion of Introduction to Java + Honors Contract with Teacher Recommendation**

DISCOVERING JAVA - MAGNET

CS112YMAMA 1 Credit - STEM Grade 10

Discovering Java will be a project-based course where students will develop programming skills while writing programs. Among the topics that will be covered will be decision structures, looping, strings, nested loops, random numbers and Monte Carlo

approximations, ArrayLists and arrays. A main focus of the course will be an introduction to Objects and Object-Oriented Programming. The course will be consistent with a typical Introduction to Computer Science course on the college level.
Prerequisite: Successful completion of Introduction to Java

DISCOVERING JAVA - MAGNET HONORS

CS112YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Successful completion of Introduction to Java + Honors Contract with Teacher Recommendation

2nd PROGRAMMING LANGUAGE - PROGRAMMING FOR ENGINEERS - MAGNET

CS 140YMAMA 1 Credit - STEM Grade 10-12

The course will introduce students to basic computer programming concepts using the C language. The student will learn to write programs which reads user input or file data, displays resulting data to the computer monitor and/or writing data to a file. Particular emphasis will be stressed on writing clear and concise code with comments, learning programming debugging methods, writing and using functions correctly, and other important programming techniques. **Prerequisite: Algebra 2**

2nd PROGRAMMING LANGUAGE - PROGRAMMING FOR ENGINEERS - MAGNET HONORS

CS 140YMAMH 1 Credit - STEM Grade 10-12

In addition to the requirements of the regular course students will be required to complete additional audio-based problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Algebra 2 + Honors Contract with Teacher Recommendation

WEB DESIGN WITH JAVA SCRIPT - MAGNET

CS121YMAMA 1 Credit - STEM Grade 11

Web Design is the process of collecting ideas, and aesthetically arranging and implementing them, guided by certain principles for a specific purpose. Web design is a similar process of creation, with the intention of presenting the content on electronic web pages, which the end-users can access through the internet with the help of a web browser. This course introduces students to basic concepts, technologies, issues, and techniques required for developing and maintaining websites. In this course, students will work collaboratively in teams to create websites. The learning process involves developing a working knowledge of media and design principles as well as an understanding of the primary web design elements.

WEB DESIGN WITH JAVA SCRIPT— MAGNET HONORS

CS121YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

APPS DEVELOPMENT - MAGNET

CS122YMAMA 1 Credit - STEM Grade 11

Students will design and build applications for mobile devices.

APPS DEVELOPMENT — MAGNET HONORS

CS122YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

MOBILE ELECTRONICS - MAGNET

CS133YMAMA 1 Credit - STEM Grade 11

Mobile Electronics is the study of electronic circuits that are used to process and control digital signals. In contrast to analog electronics, where information is represented by a continuously varying voltage, digital signals are represented by two discreet voltages or logic levels. This distinction allows for greater signal speed and storage capabilities and has revolutionized the world electronics. Mobile Electronics is the foundation of all modern electronic devices such as cellular phones, tablets, MP3 players, laptop computers, digital cameras, high definition televisions, etc. The major focus of the Mobile Electronics course is to study and evaluate digital electronics as seen in mobile devices, such as smart phones and tablets.

MOBILE ELECTRONICS — MAGNET HONORS

CS133YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation

ARTIFICIAL INTELLIGENCE I – MAGNET

CS151YMAMA 1 Credit - STEM Grade 11

The goal of artificial intelligence is to build software systems that behave "intelligently". The ultimate goal of artificial intelligence is to make a computer that can learn, plan, and solve problems autonomously. This course introduces students to the basic knowledge representation, problem solving, and learning methods of artificial intelligence. The main purpose of this course is to provide the most fundamental knowledge to the students so that they can understand what artificial intelligence is. Topics in this course include introduction to problem solving, reasoning, planning, natural language understanding, computer vision, automatic programming, and machine learning.

ARTIFICIAL INTELLIGENCE I – MAGNET HONORS

CS151YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

ARTIFICIAL INTELLIGENCE II - MAGNET

CS151YMAMA 1 Credit - STEM Grade 11-12

The ultimate goal of artificial intelligence is to make a computer that can learn, plan, and solve problems autonomously. This course introduces students to the basic knowledge representation, problem solving, and learning methods of artificial intelligence. The main purpose of this course is to provide the most fundamental knowledge to the students so that they can understand what artificial intelligence is. Topics in this course include advanced problem solving, reasoning, planning, natural language understanding, computer vision, automatic programming, and machine learning. **Prerequisite: Artificial Intelligence I**

ARTIFICIAL INTELLIGENCE II - MAGNET HONORS

CS151YMAMH 1 Credit - STEM Grade 11-12

The goal of artificial intelligence is to build software systems that behave "intelligently". The ultimate goal of artificial intelligence is to make a computer that can learn, plan, and solve problems autonomously. This course introduces students to the basic knowledge representation, problem solving, and learning methods of artificial intelligence. The main purpose of this course is to provide the most fundamental knowledge to the students so that they can understand what artificial intelligence is. Topics in this course include problem solving, reasoning, planning, natural language understanding, computer vision, automatic programming, and machine learning. In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Artificial Intelligence 1+ Honors Contract with Teacher Recommendation

ROBOTICS AND BIONICS I - MAGNET

CS141YMAMA 1 Credit - STEM Grade 11

This course is a study of fundamental aspects of robotic/bionic design, operation, and implications for human advancement.

ROBOTICS AND BIONICS I - MAGNET HONORS

CS141YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

COMPUTER SCIENCE - AP

CS102YTDAP 1 Credit - STEM Grade 11

APCS is equivalent to a two-semester computer science course taught at the college level in the Java programming language. Topics include arrays, Array Lists, classes, sorting, searching, and recursion. Students who are successful in the course will take an Advanced Placement exam in May for which they may receive three college credits.

Prerequisite: Successful completion of Geometry

COMPUTER SCIENCE PRINCIPLES – AP

CS104YTDAP ___ 1 Credit- STEM _____ Grade 10

AP Computer Science Principles introduces students to the foundational concepts of the field and challenges them to explore how computing and technology can impact the world.

Prerequisite: Successful completion of Geometry/ Algebra 1

COMPUTER SCIENCE ESSENTIALS (PLTW) – MAGNET

CS ########## 1 CREDIT – STEM Grade 9

In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

COMPUTER SCIENCE EESSENTIALS (PLTW) – HONORS

CS 116YMAMH 1 Credit – STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Honors Contract with Teacher Recommendation

CYBERSECURITY (PLTW) – MAGNET

CS ########## 1 CREDIT– STEM Grade 11-12

Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.

CYBERSECURITY (PLTW) – MAGNET HONORS

CS ########## 1 CREDIT– STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Honors Contract with Teacher Recommendation

DIGITAL DESIGN II - MAGNET

CS132YMAMA 1 Credit – STEM Grade 11

As a follow-up to Digital Design I this course builds on to provide intermediate to advanced concepts in developing/designing/improving mobile devices, computer systems, robotics and higher end electronics.

Prerequisite: Successful completion of Digital Design I

DIGITAL DESIGN II - MAGNET HONORS

CS132YMAMH 1 Credit - STEM Grade 11

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Successful completion of Digital Design I + Honors Contract with Teacher Recommendation

FUNDAMENTALS OF INFORMATION TECHNOLOGY – MAGNET

CS########## 1 credit – STEM Grade 10-11

Students will learn the basics of hardware design through a variety of student projects and by operating a student and faculty helpdesk and print shop within the school. This course introduces students to the basics of hardware and troubleshooting interoperability between hardware and software. Students will engage in course projects to gain an understanding of basic circuitry and assist in trouble shooting real world problems at the student run helpdesk and print shop.

Prerequisite: Successful completion of Intro to Java

FUNDAMENTALS OF INFORMATION TECHNOLOGY –MAGNET HONORS

CS ########## 1 CREDIT– STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation

ADVANCED INFORMATION TECHNOLOGY PROBLEM SOLVING – MAGNET

CS########## 1 Credit – STEM Grades 11-12

Advanced IT problem solving runs concurrently with fundamentals of IT problem solving to give students interested in working in IT an opportunity to take on more advanced technical issues and learn some core business management skills. Students in this course will take on help desk issues of a more complex nature that are elevated to a tier 2 support level. Students will also engage in some of the hands on supervisory aspects of the helpdesk and print shop under the guidance of the teacher**.**
Prerequisite: Successful completion of Fundamentals of Information Technology

ADVANCED INFORMATION TECHNOLOGY PROBLEM SOLVING –MAGNET HONORS

CS ########## 1 CREDIT– STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation

INTRODUCTION TO MULTIMEDIA PRODUCTION - MAGNET

FA216YMAMA 1 Credit - STEM Grades 11-12

Course includes a survey of digital media applications, fundamentals, and issues relating to the use of digital media. A passing grade may earn college credit for this course.

INTRODUCTION TO MULTIMEDIA PRODUCTION - MAGNET HONORS

FA216YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

ADVANCED MULTIMEDIA PRODUCTION - MAGNET

FA217YMAMA 1 Credit - STEM Grades 11-12

This course presents an advanced survey experience in digital communication technologies and methods of producing and disseminating media content. Coupled with the active and engaged method of "learning while doing" are the underlying ethical, historical and legal lessons for each type of production. This course seeks to improve students' critical thinking and media

technology production skills. The overall objective for this course is not only to make students better users and consumers of communication technologies, but also to allow students to explore what it means to be critical thinkers in an increasingly technology-driven consumer society. **Prerequisite: Introduction to Multimedia Production**

ADVANCED MULTIMEDIA PRODUCTION - MAGNET HONORS

FA217YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Introduction to Multimedia Production + Honors Contract with Teacher Recommendation**

DIGITAL IMAGE/PROCESS - MAGNET

CS134YMAMA 1 Credit - STEM Grades 11-12

This course offers an introduction to the theory of multidimensional signal processing and digital image processing, including key applications in multimedia products and services, and telecommunications.

DIGITAL IMAGE/PROCESS - MAGNET HONORS

CS134YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

HUMAN COMPUTER INTERACTION - MAGNET

CS143YMAMA 1 Credit - STEM Grades 11-12

This course focuses on the design, evaluation, and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them.

HUMAN COMPUTER INTERACTION - MAGNET HONORS

CS143YMAMH 1 Credit - STEM Grades 11-12

This course focuses on the design, evaluation, and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them. In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Honors Contract with Teacher Recommendation

GAMING ANIMATION- MAGNET

CS123YMAMA 1 Credit - STEM Grades 11-12

Students will design and develop their own games in small groups utilizing the Agile Development Cycle. Students will utilize the Unity Game Engine and C# to design the levels, code for the underlying functionality, and test for and debug possible errors of their game.

Prerequisite: AP CS Principles

GAMING ANIMATION - MAGNET HONORS

CS123YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation

DEMOCRATIC TECHNOLOGIES - MAGNET

CS137YMAMA 1 Credit - STEM Grades 11-12

Ethical use of technology in the 21st century and review of the structures related to social media. In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the technical material covered within the class relative to ethical hacking and technical security awareness. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

DEMOCRATIC TECHNOLOGIES - MAGNET HONORS

CS137YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

MULTIMEDIA FIELD PRODUCTION - MAGNET

FA215YMAMA 1 Credit - STEM Grades 11-12

A hands-on course immersing students in live event production and location shooting.
Prerequisite: Advanced Multimedia

MULTIMEDIA FIELD PRODUCTION - MAGNET HONORS

FA215YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Advanced Multimedia + Honors Contract with Teacher Recommendation**

DA ENGINEERING - MAGNET

VA206YMAMA 1 Credit - STEM Grade 11-12

This class is an introductory level overview of audio equipment, applications, programs and techniques. Students taking this course need no previous audio recording or engineering experience but the class is best suited for those interested in exploring media production career paths with specific emphasis on strengthening one's understanding of audio's critical role in creating visual content. This course covers the basics of the physics of audio, general explanations of how to select and properly use recording devices. There will be a variety of learning sessions followed by hands-on engineering sessions with experts in the field. All work produced for the class will be mixed and mastered by the student and collected for a multimedia portfolio reel. There will also be several sessions dedicated to the study of the business aspects of multimedia production such as establishing your own company and making connections for work.

DA ENGINEERING – MAGNET HONORS

VA ########## 1 CREDIT– STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation

MOTION CAPTURE - MAGNET

CS127YMAMA 1 Credit - STEM Grade 11-12

This course exposes students to our open stage motion capture system. Students will be able to capture their movements and project this data collection in film, sports or other applications. This course is project driven with critical analysis of the purposes relative to the next steps in motion data collection. Students are engaged in the creation of their own real-time 3D motion data in a natural and intuitive way.
Prerequisite: Advanced Multimedia Production

MOTION CAPTURE - MAGNET HONORS

CS127YMAMH 1 Credit - STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional audio-based problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Advanced Multimedia Production + Honors Contract with Teacher Recommendation

INTERNET OF THINGS - MAGNET

CS203YMAMA 1 Credit - STEM Grade 11-12

This course is the interconnection via the internet of computing devices embedded in everyday objects, enabling them to send and receive data. This interdisciplinary course will challenge students to develop hardware, software and firmware systems that collect data from physical processes and transport it to the cloud. Students will code applications for systems using Python JavaScript and HTML/CSS, and connect their systems to the internet and mobile apps. The systems will acquire, analyze, and visualize sensor data in real-time, and control outputs through displays, lights, motion, and sound. Students will also address the cybersecurity issues raised by connecting devices like smart appliances to the internet.

INTERNET OF THINGS - MAGNET HONORS

CS203YMAMH 1 Credit - STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional audio-based problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation

COMPUTER ETHICS - MAGNET

CS202YMAMA 1 Credit - HUMANITIES Grade 10-12

This course exposes is intended to give students a chance to reflect on the humanitarian, social, and professional impact of computer technology by focusing on ethical issues faced by and brought about by computing professionals, including those

related to networking and the internet, intellectual property, privacy, security, reliability, and liability. It will also focus on issues raised by the possible emergence in the future of highly intelligent machines.

COMPUTER ETHICS - MAGNET

CS#######__ 1 Credit - HUMANITIES Grade 10-12

In addition to the requirements of the regular course students will be required to complete additional audio-based problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Honors Contract with Teacher Recommendation

CAPSTONE I - MAGNET

ID102YMAMA 1 Credit – MASTERY BASED Grade 11

The Capstone Program is a two course program designed for 11th grade students to apply a concentrated thematic, interdisciplinary approach to STEM education. The Capstone Program will consist of a long-term investigative project that culminates in a final product, presentation, or performance. Successful completion will be determined by their project outcome, a constructed project depicting the conceptual solution and a presentation to a selected audience. AP Seminar is foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances

SATELLITE DESIGN AND TECHNOLOGY - MAGNET

SC133YMAMA 1 Credit-STEM Grade 11 - 12

This course teachers the entire process of small satellite design, fabrication, integration and testing. The course covers the following topics: history of satellite design, satellite mission design; environment and hazards of space flight; orbits and astrodynamics (including spacecraft orbital elements and satellite tracking software); thermal control, materials and structures, power (including solar panels), propulsion, overview of payloads (communication and observation) data acquisition systems; ground station operation; NASA small satellite testing specifications and thermal, vacuum and vibration testing

SATELLITE DESIGN AND TECHNOLOGY - MAGNET

CS#########_ 1 Credit - STEM Grade 11-12

In addition to the requirements of the regular course students will be required to complete additional audio-based problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Honors Contract with Teacher Recommendation

CAPSTONE II - MAGNET

ID103YMAMA ___1 Credit – MASTERY BASED Grade 12

The Capstone Program is a two course program designed for 12th grade students to apply a concentrated thematic, interdisciplinary approach to STEM education. The Capstone Program will consist of a long-term investigative project that culminates in a final product, presentation, or performance. Successful completion will be determined by their project outcome, a constructed project depicting the conceptual solution and a presentation to a selected audience.

FAIRCHILD WHEELER CORE COURSES

ENGLISH

ENGLISH 9 - MAGNET

EN101YMAMA 1 Credit - HUMANITIES Grade 9

This course fosters an integrated, process approach to the language arts. The course focuses on frequent, authentic reading and writing experiences that address increasingly challenging, sophisticated texts and concepts. Students are required to publish pieces, including reader responses, expository essays, interdisciplinary reports, and self-reflections. Oral language, media, and computer literacy are also integral components of the program. The essential question, "Who am I? How does my life relate to what I read?" is explored through the literature and while all literary genres are included, the emphasis is on short fiction and non-fiction.

ENGLISH 9 - MAGNET HONORS

EN101YMAMH 1 Credit - HUMANITIES Grade 9

In addition to the requirements of the regular course students will be required to complete additional literary challenges or projects that delve deeper into the material covered within the class and may include additional material. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Honors Contract with Teacher Recommendation

ENGLISH 10 - MAGNET

EN201YMAMA 1 Credit - HUMANITIES Grade 10

This course fosters an integrated, process approach to the language arts. The course focuses on frequent, authentic reading and writing experiences that address increasingly challenging, sophisticated texts and concepts. Students are required to publish pieces including reader responses, persuasive essays, research papers, business letters, and self-reflections. Oral language, media, and computer literacy are also integral components of the program. The essential questions, "How does my community affect my life? How can I impact the world around me?" are explored through the literature and while all literary genre are included, the emphasis is on non-fiction, the short story and drama.

ENGLISH 10 - MAGNET HONORS

EN201YMAMH 1 Credit – HUMANITIES Grade 10

In addition to the requirements of the regular course students will be required to complete additional literary challenges or projects that delve deeper into the material covered within the class and may include additional material. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Honors Contract with Teacher Recommendation

ENGLISH 11- MAGNET

EN301YMAMA 1 Credit - HUMANITIES Grade 11

This course provides students a rigorous junior English program that serves as preparation for the English Literature and Composition Advanced Placement course or other alternatives. This course encompasses the objectives and requirements of the regular English 11 curriculum but requires students both to work with even more challenging materials and also to demonstrate more advanced levels of literacy.

ENGISH 11- MAGNET HONORS

EN301YMAMH 1 Credit - HUMANITIES Grade 11

In addition to the requirements of the regular course students will be required to complete additional literary challenges or projects that delve deeper into the material covered within the class and may include additional material. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Honors Contract with Teacher Recommendation

ENGLISH 12 - MAGNET

EN401YMAMA 1 Credit - HUMANITIES Grade 11

English 12 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Composition at the beginning of the course includes the college essay, applications, and resumes. Additionally, students will compose essays, poems, a formal speech, a formal research paper, editorials, letters to editor, critiques, media projects using a variety of text types (i.e., narrative, informative/explanatory, and argumentative) and for a variety of purposes. Students will analyze, evaluate, and integrate information from multiple sources to support their composition and students will also write for shorter time frames such as a single sitting or over a day or two. Students will read literary nonfiction,, plays, short stories, novels, and other works. This course focuses on literary traditions among African-Americans and places those traditions in their historical and world context as well as other pieces of literature from around the world, most noted for literary merit (e.g., Letter from Birmingham Jail, Don Quixote, Shakespeare). The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills to further education, college, or career. Oral language and computer skills are an integral component of English 12 and an oral research presentation with media is required.

ENGLISH 12 - MAGNET HONORS

EN401YMAMH 1 Credit – HUMANITIES Grade 12

In addition to the requirements of the regular course students will be required to complete additional literary challenges or projects that delve deeper into the material covered within the class and may include additional material. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Honors Contract with Teacher Recommendation

HISTORY & LITERATURE THROUGH THE LENS OF FILM

EN312YTDGE 1 Credit – HUMANITIES Grades 11-12

This semester-long elective will have two key objectives. The first will center on reading a visual text for characterization, plot, pacing, inferencing and finding thematic connections to ideas outside of the film. The second crucial element will be the technology behind the making of each film and the effect it has on the aesthetic aspect of the film. These are the two major components that will drive Socratic Seminars, Reflective Writing and projects that illustrate acquired concepts. This course will prepare students for the Filmmaking Pathway offered at Fairchild Wheeler in the way that their realm of creative ideas will grow and as a result, the probability of quality student films will increase.

JOURNALISM

EN311YTDGE 1 Credit – HUMANITIES Grades 11-12

Introduces the student to basic journalistic skills. Students learn to develop a respect for truth in written work. They also evaluate and organize facts using a variety of news writing techniques. Students use these basic journalistic skills to produce a school newspaper.

Prerequisite: A grade of "B" or better in prior year English.

MATHEMATICS

ALGEBRA 1— MAGNET

MA101YMAMA 1 Credit - STEM Grades 9- 10

Makes connections between Algebra, Geometry, and Probability and Statistics. Computations include: applying rules of Algebra; solving, graphing, and writing linear equations; solving and graphing linear inequalities; solving systems of linear equations; exploring and applying the laws of exponents; solving and graphing quadratic equations; solving rational equations; and exploring functions and relations. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections, and communicating mathematically.

ALGEBRA 1— MAGNET HONORS

MA101YMAMH 1 Credit - STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional mathematical challenges or projects that delve deeper into the material covered within the class. Independent application of mathematical concepts is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Honors Contract with Teacher Recommendation

ALGEBRA 2 — MAGNET

MA202YMAMA 1 Credit - STEM Grades 10-12

seeks to develop a higher degree of skill and accuracy in algebraic techniques, and understanding of the structure of mathematical systems and the application to science. Topics include a review and an extension of concepts developed in algebra and extends to graphing quadratic equations, conic sections, the study of relations and functions, power roots, irrational numbers, series, binomial theorem, matrices, and the complex number system. Emphasis is placed on problem solving using calculator and computer activities, mathematical reasoning and connections. **Prerequisites: Algebra I**

ALGEBRA 2 — MAGNET HONORS

MA202YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional mathematical challenges or projects that delve deeper into the material covered within the class. Independent application of mathematical concepts is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Algebra 1+ Honors Contract with Teacher Recommendation

GEOMETRY— MAGNET

MA201YMAMA 1 Credit - STEM Grades 9-11

This course includes the concepts of geometric figures, parallelism, congruence, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area, and volume. Special emphasis is placed on problem solving using the scientific

calculator, graphing calculator, and the computer; mathematical connections; critical thinking skills; reasoning; and communicating mathematics. **Prerequisite: Algebra I**

GEOMETRY - MAGNET HONORS

MA201YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional mathematical challenges or projects that delve deeper into the material covered within the class. Independent application of mathematical concepts is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Honors Contract with Teacher Recommendation

PROBABILITY & STATISTICS - MAGNET

MA301YMAMA 1 Credit - STEM Grades 11-12

This course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will work with statistical measures of central tendency and spread and methods of sampling and experimentation. Students will use multiple representations to present data, including written descriptions, numerical statistics, formulas and graphs.

Prerequisite: Algebra I.

PROBABILITY & STATISTICS - MAGNET HONORS

MA301YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional mathematical challenges or projects that delve deeper into the material covered within the class. Independent application of mathematical concepts is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Algebra I + Honors Contract with Teacher Recommendation

MATH FOR COLLEGE READINESS – MAGNET

MA020YTDMA 1 Credit – STEM Grades 11-12

This course is designed to refresh algebraic and geometrical concepts, increase comprehension of SAT word problems by exercising varied comprehension strategies and learn and utilize various test-taking strategies to prepare for college entrance and placement exams. Students will then apply that knowledge to various SAT tasks, and project – based, theme embedded outcomes. **Prerequisite: Algebra I**

PRE-CALCULUS - MAGNET

MA400YMAMA 1 Credit - STEM Grades 11-12

This course is designed to provide students with an intensive, accelerated, and rigorous program in trigonometry, problem solving with mathematical modeling to real world situations, and applications of analytical concepts. A special emphasis will include higher algebraic techniques and graphical representations using technology. This course is a requirement for Advanced Placement Calculus.

Prerequisites: Algebra 2

PRE-CALCULUS - MAGNET HONORS

MA400YMAMH 1 Credit - STEM Grades 10-12

In addition to the requirements of the regular course students will be required to complete additional mathematical challenges or projects that delve deeper into the material covered within the class. Independent application of mathematical concepts is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Algebra 2 + Honors Contract with Teacher Recommendation

CALCULUS I - MAGNET

MA401YMAMA 1 Credit - STEM Grades 11-12

This course is intended for students who have a thorough knowledge of college preparatory mathematics: Algebra, Geometry, Trigonometry and Analytical Geometry or Pre-Calculus. Topics include polynomial functions, trigonometric functions, exponential and logarithmic functions, the derivative and its applications, integration and its applications and methods, and the definite integral and its applications.

Prerequisite: Pre-Calculus

CALCULUS I - MAGNET HONORS

MA401YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional mathematical challenges or projects that delve deeper into the material covered within the class. Independent application of mathematical concepts is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisites: Pre-calculus + Honors Contract with Teacher Recommendation

BUSINESS MATH

MA507SMAMA 0.5 Credit - STEM Grades 11-12

This course develops a strong mathematics foundation focusing on many topics found in business and the real world. Students will learn and apply the following skills to a variety of business-related and everyday real-world tasks: thinking critically, approaches to problem solving, numbers in the real world, managing money, statistical reasoning, modeling with geometry, mathematics and the arts, and mathematics and politics.

SCIENCE

SCIENCE AND SOCIETY

SC601SAQMA 0.5 Credit - STEM Grades 9-12

Features an exploration of the mutual impact of science and society, using print and visual media of the most recent discoveries and innovations across the science disciplines, including medicine, genetics, ecology and the physical sciences. This course emphasizes readings, research and class discussions, and is open to Bridgeport afternoon session students only.

SCIENTIFIC LITERACY

SC100STDGE 0.5 Credit - STEM Grades 9 – 10

This elective course strengthens common core literacy skills used in science. Skills and topics such as the knowledge of root words, reading and creating graphs, writing scientific articles and lab reports using MLA format will be addressed.

PHYSICAL SCIENCE - MAGNET

SC101YMAMA 1 Credit - STEM Grade 9

A course introducing the basic principles and applications of matter, its properties and reactions, interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. There will be one lab period per week. This course must be passed for entrance into Biology.

PHYSICAL SCIENCE - MAGNET HONORS

SC101YMAMH 1 Credit - STEM Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisites: Honors Contract with Teacher Recommendation**

BIOLOGY - MAGNET

SC110YMAMA 1 Credit - STEM Grades 9-11

is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. **Required for all students, also there will be one lab period per week.**

BIOLOGY - MAGNET HONORS

SC110YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisites: Honors Contract with Teacher Recommendation**

NATURAL SCIENCE - MAGNET

SC140YMAMA 1 Credit - STEM Grades 9-11

This course will look at the Natural Science of the Earth's atmosphere, galaxy, oceans and geology. The units will utilize Project Based Learning to allow the students to become experts in one area of each unit.

NATURAL SCIENCE - MAGNET HONORS

SC140YMAMH 1 Credit - STEM Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisites: Honors Contract with Teacher Recommendation**

CHEMISTRY - MAGNET

SC201YMAMA 1 Credit - STEM Grades 11-12

is a full year course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course stresses chemical reactions, their occurrences, and the energy transfers associated with these reactions. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite: Two tier I sciences and one year of Algebra I**

CHEMISTRY - MAGNET HONORS

SC201YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisites: Honors Contract with Teacher Recommendation**

PHYSICS - MAGNET

SC301YMAMA 1 Credit - STEM Grades 11-12

is the study of the fundamental laws and concepts of our physical world. Areas of emphasis are mechanics, heat, light, sound, electricity and magnetism, and nuclear physics. The laboratory is an integral part of the course. **Prerequisites: Algebra, Algebra II, and two years of science.**

PHYSICS - MAGNET HONORS

SC301YMAMA 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisites: Honors Contract with Teacher Recommendation**

CONCEPTUAL PHYSICS - MAGNET

SC302YMAMA 1 Credit - STEM Grades 11-12

Conceptual Physics engages students with analogies and imagery from real-world situations to build a strong conceptual understanding of physical principles ranging from classical mechanics to modern physics. With this strong conceptual foundation, students are better equipped to understand the equations and formulas of physics, and to make connections between the concepts of physics and their everyday world. Students will be exposed to various physical dilemmas and will be asked to use scientific reasoning and evidence to showcase realistic solutions to a audience. The class focus is on teaching foundational physics theory, concepts, terminology, and equations through laboratory activities, performance assessment tasks, and unit projects. A vital component to our learning in Conceptual Physics is to be a resilient learner: be open to tackling difficult problems, concepts, and creating innovative solutions. Students will use technology to design projects that illustrate concepts taught in class and use related information to the Software and Hardware Informational Technology fields.

CONCEPTUAL PHYSICS - MAGNET HONORS

SC302YMAMH 1 Credit - STEM Grades 11-12

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

SOCIAL STUDIES

AFRICAN AMERICAN STUDIES- MAGNET

SS422SMMMA 0.5 Credit – HUMANITIES Grade 9

The African American Studies course in the Bridgeport Public School System is designed to develop an understanding f the causes, character, and consequences of the African American experience and its influence on the world, the United States, and the African American community. Beginning with a historical, geographical, social, political, economic, and cultural understanding of the African continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the African and African American experiences. Magnet programs will require written reports addressing one or more significant issues addressed in the course.

AFRICAN AMERICAN STUDIES MAGNET HONORS

SS422SMAMH 0.5 Credit - HUMANITIES Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

EARLY AMERICAN REPUBLIC - MAGNET

554125MAMA 0.5 Credit – HUMANITIES Grade 10

covers American history from 1800-1865. Topics include Westward Expansion, Early Industrialization, Sectionalism, and the Civil War. Assured experiences address analysis, evaluation and synthesis of historical documents and the use of evidence to support an argument.

EARLY AMERICAN REPUBLIC - MAGNET HONORS

554125MAMH 0.5 Credit - HUMANITIES Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. Prerequisite: Honors Contract with Teacher Recommendation

LATIN AMERICAN STUDIES- MAGNET

SS424SMAMA 0.5 Credit – HUMANITIES Grade 9

The Latin American Studies course in the Bridgeport Public School System is designed to explore the Latin American experience from the pre-colonial period to contemporary 21st Century America. Developing an understanding of historical, geographical, social, political, economic, and cultural of the Central and South American continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the Latin America experiences. Magnet programs will require written reports addressing one or more significant issues addressed in the course.

LATIN AMERICAN STUDIES- MAGNET HONORS

SS424SMAMH 0.5 Credit - HUMANITIES Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product **Prerequisite: Honors Contract with Teacher Recommendation**

PERSPECTIVES ON RACE- MAGNET

SS451SMAMA 0.5 Credit - HUMANITIES Grade 9

The Perspectives on Race, Ethnicity, and Religion, in the Bridgeport Public School System is an introductory anthology that examines the history, current issues, and dynamics of select minority groups in the United States. This will African Americans, Hispanics, Asians, Pacific Islanders, and American Indians, and also looks at Jewish and Muslim Americans. Another unique feature of this course is that it puts the study of diversity and identity politics in a larger context, thus providing students with a broader perspective on these issues.

PERSPECTIVES ON RACE- MAGNET HONORS

SS451SMAMH 0.5 Credit - HUMANITIES Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

CIVICS - MAGNET

552015MAMA 0.5 Credit - HUMANITIES Grade 10

This course is a mandatory semester course for tenth grade students that examines civic life, politics, government, and the foundations of the American political system. Students explore the role of the Constitution, roles of citizens and America's relationship to other world nations and world affairs. Special emphasis is placed on developing the participatory skills essential for informed, effective and responsible citizenship.

CIVICS - MAGNET HONORS

552015MAMH 0.5 Credit - HUMANITIES Grade 10

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

WORLD HISTORY - AP

SS105YTDAP 1 Credit - HUMANITIES Grade 10

AP World History is designed to be the equivalent of a two-semester introductory college or university world history course. In AP World History students investigate significant events, individuals, developments, and processes in six historical periods from approximately 8000 B.C.E. to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course provides five themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. Students will be expected to take the A.P. exam in May, which may lead to college credit.

WORLD CULTURES - MAGNET

55102YMAMA 1 Credit - HUMANITIES Grade 9

World Cultures at the ninth grade level is a survey course that gives students the opportunity to explore recurring themes of human experience common to civilizations around the globe from ancient to contemporary times. As students examine the historical roots of significant events, ideas, movements, and phenomena, they encounter the contributions and patterns of living in civilizations around the world.

Students broaden their historical perspectives as they explore ways societies have dealt with continuity and change, exemplified by issues such as war and peace, internal stability and strife, and the development of institutions. This course in the Aerospace/Hydrospace and Physical Sciences Magnet will be taught through thematic units aimed at the exploration and hands-on application of advances in civil, mechanical, aerospace and hydrospace engineering throughout human history.

WORLD CULTURES - MAGNET HONORS

55102YMAMH 1 Credit - HUMANITIES Grade 9

In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product. **Prerequisite: Honors Contract with Teacher Recommendation**

US HISTORY- MAGNET

55301YMAMA 1 Credit - HUMANITIES Grade 11

This course is designed to prepare eleventh grade students to achieve national and state standards and become knowledgeable citizens. Course content includes a comprehensive survey of American history from the Jamestown settlement through the Clinton Administration. Students will apply standards of historical thinking (e.g. chronological thinking, historical comprehension, and historical issues analysis), and decision-making and research and writing skills to their study of American history.

US HISTORY - MAGNET HONORS

55301YMAMH 1 Credit - HUMANITIES Grade 11

A Magnet honors level course designed to prepare eleventh grade students to achieve national and state standards and become knowledgeable citizens. Course content includes a comprehensive survey of American history from the Jamestown settlement through the Clinton Administration. Students will apply standards of historical thinking (e.g. chronological thinking, historical comprehension, and historical issues analysis), and decision-making and research and writing skills to their study of American history.

Prerequisite: Honors Contract with Teacher Recommendation

US HISTORY - AP

SS301YTDAP 1 Credit - HUMANITIES Grades 11-12

is a, comprehensive, college level survey of United States history in which students gain a solid foundation in the social, political, economic, and intellectual forces that impact our culture. Each marking period, students are required to complete a long-term assignment involving extensive research, reading and writing. Students will be expected to take the AP exam in May, which may lead to college credit.

Prerequisite: Recommendation of a Previous Social Studies Teacher

Visual Arts

COMPUTER VISUAL ARTS- MAGNET

FA221YMAMA 1 Credit - HUMANITIES Grades 11-12

Computer Visual Arts is a study of the computer as a visual arts medium. Current computer art technology and its applications to fine art, commercial/industrial design, animation and multimedia presentation are areas of study.

COMPUTER VISUAL ARTS- MAGNET-HONORS

FA221YMAMAH 1 Credit – HUMANITIES Grades 11-12

Computer Visual Arts is a study of the computer as a visual arts medium. Current computer art technology and its applications to fine art, commercial/industrial design, animation and multimedia presentation are areas of study. In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

DIGITAL PHOTOGRAPHY- MAGNET

FA204YMAMA 1 Credit - HUMANITIES Grades 11-12

DIGITAL PHOTOGRAPHY emphasizes technology, using digital cameras and computer imaging software. This course centers around artistic perception, photographic composition, computer image development, enhancement, and manipulation. Students need to have their own digital camera.

DIGITAL PHOTOGRAPHY- MAGNET-HONORS

FA204YMAMAH 1 Credit - HUMANITIES Grades 11-12

DIGITAL PHOTOGRAPHY emphasizes technology, using digital cameras and computer imaging software. This course centers around artistic perception, photographic composition, computer image development, enhancement, and manipulation. Students need to have their own digital camera. In addition to the requirements of the regular course students will be required to complete additional problems and/or projects that delve deeper into the material covered within the class. Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.

Prerequisite: Honors Contract with Teacher Recommendation

STUDIO ARTS I

VA311YTDGE 1 Credit - HUMANITIES Grades 11-12

Course offers students a broad range of experiences in a variety of media as well as an introduction to the elements and principals of design. Students will create and interpret visual images and will explore significant historical and cultural achievements and trends in the visual arts.

STUDIO ARTS II

VA312YTDGE 1 Credit - HUMANITIES Grades 11-12

Is a continuation of the study of the topics listed in Studio Arts 1. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge. The acquisition of the analytical and problem-solving skills needed to create and appreciate fine art will be stressed.

Prerequisite: Studio Arts 1

WORLD LANGUAGES

SPANISH 1- MAGNET

WL101YMAMA 1 Credit - HUMANITIES Grades 10-12

This is a magnet level introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures. Students will develop a higher level of proficiency through extensive rigorous coursework.

SPANISH 1- MAGNET - HONORS

WL101YMAMH 1 Credit - HUMANITIES Grades 10-12

This is an intensive introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish-speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures. Students will be introduced to Spanish literature.
Students will be required to complete additional projects that delve deeper into material covered within the class.
Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product.
Prerequisite: Honors Contract with Teacher Recommendation, and an overall B+ average

SPANISH 2 - MAGNET

WL102YMAMA 1 Credit - HUMANITIES Grades 10- 12

This magnet level course is a continuation of Spanish land builds on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a Spanish-speaking country. Students will develop a higher level of proficiency through extensive rigorous coursework. **Prerequisites: Successful completion of Spanish I**

SPANISH 2 - MAGNET- HONORS

WL102YMAMH 1 Credit - HUMANITIES Grades 10- 12

StThis course is a continuation of Spanish 1 and builds on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop additional and more advanced grammatical concepts to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. Culturally authentic contemporary situations will motivate proficient oral production. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a Spanish-speaking country. Students will begin to respond to literature and authentic materials in written and spoken forms. Students will acquire communicative competency to conduct basic conversations and express ideas more in depth.
Students will be required to complete additional projects that delve deeper into material covered within the class.
Independent research is a major aspect of this course. A minimum of three progress meetings with the teacher are required prior to the submission of the student's final product
Prerequisites: Successful completion of Spanish I + Honors Contract with Teacher Recommendation

SPANISH 3 - MAGNET

WL103YMAMA 1 Credit - HUMANITIES Grades 10-12

This magnet level course is a continuation of Spanish 2 and increases the student's knowledge of Spanish culture throughout the world. Students will understand more complex syntax in reading and writing in Spanish. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. Students will develop a higher level of proficiency through extensive rigorous coursework.
Prerequisite: Successful completion of Spanish 2

SPANISH 3 - MAGNET- HONORS

WL103YMAMH 1 Credit - HUMANITIES Grades 10- 12

This course is a continuation of Spanish 2 and increases the student's knowledge of Spanish culture throughout the world. Students will understand more complex syntax in reading and writing in Spanish. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. Students will critically analyze and respond to authentic materials in spoken and written forms. Students will be able to conduct conversations.

Prerequisites: Successful completion of Spanish 2 + Honors Contract with Teacher Recommendation

SPANISH 4 - MAGNET

WL104YMAMA 1 Credit - HUMANITIES Grades 10-12

This is a rigorous magnet level course designed to provide students the opportunity to achieve Spanish proficiency orally, reading and writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures. The goal of this course is to prepare students for proficiency of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. Students will develop a higher level of proficiency through extensive rigorous coursework.

Prerequisite: Successful completion of Spanish 3

MANDARIN CHINESE 1- MAGNET

WL401YMAMA 1 Credit - HUMANITIES Grades 10-12

This is a magnet level introductory course that will provide students with a foundational knowledge of Chinese culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Chinese speaking country. The goal of this course is to communicate about basic topics in Chinese. In this course, special emphasis will be placed on communicative competency and basic introduction of phonetics and daily expressions. Students will develop a higher level of proficiency through extensive rigorous coursework.

MANDARIN CHINESE 1- MAGNET HONORS

WL401YMAMH 1 Credit - HUMANITIES Grades 10-12

This is an introductory course that will provide students with a foundational knowledge of Chinese culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Chinese-speaking country. The goal of this course is to communicate about basic topics in Chinese. In this course, special emphasis will be placed on communicative competency and basic introduction of phonetics and daily expressions so that students are able to develop skills to begin to express ideas.

Prerequisite: Honors Contract with Teacher Recommendation, and an overall B+ average

MANDARIN CHINESE 2 - MAGNET

WL402YMAMA 1 Credit - HUMANITIES Grades 10- 12

This magnet level course is a continuation of Mandarin Chinese 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and Chinese culture. Students continue to develop a phonetics foundation to communicate basic ideas through oral, listening, reading and writing activities about a variety of topics in Chinese. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a Chinese-speaking country. Students will develop a higher level of proficiency through extensive rigorous coursework. **Prerequisites: Successful completion of Mandarin Chinese 1**

MANDARIN CHINESE 2 - MAGNET HONORS

WL402YMAMH 1 Credit - HUMANITIES Grades 10-12

This course is a continuation of Mandarin Chinese 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and Chinese culture. Students continue to develop a phonetics foundation to communicate basic ideas through oral, listening, reading and writing activities about a variety of topics in Chinese. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a Chinese-speaking country. Students will acquire communicative competency to conduct basic conversations and express ideas more in depth.
Prerequisites: Successful completion of Mandarin Chinese 1+ Honors Contract with Teacher Recommendation

MANDARIN CHINESE 3 - MAGNET

WL403YMAMA 1 Credit - HUMANITIES Grades 10-12

This magnet level course is a continuation of Mandarin Chinese 2 and increases the student's knowledge of Chinese culture throughout the world. Students will understand more complex syntax in reading and writing in Chinese. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Chinese contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. Students will develop a higher level of proficiency through extensive rigorous coursework.
Prerequisites: Successful completion of Mandarin Chinese 2

MANDARIN CHINESE 3 - MAGNET HONORS

WL403YMAMH 1 Credit - HUMANITIES Grades 10-12

This course is a continuation of Mandarin Chinese 2 and increases the student's knowledge of Chinese culture throughout the world. Students will understand more complex syntax in reading and writing in Chinese. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Chinese contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. Students will critically analyze and respond to authentic materials in spoken and written forms. Students will be able to conduct conversations.
Prerequisites: Successful completion of Mandarin Chinese 2 + Honors Contract with Teacher Recommendation

PHYSICAL /HEALTH EDUCATION

HEALTH

HE1015TDGE 0.5 Credit Grades 9-12

This course provides information to motivate students to protect, maintain and improve their health. Topics include: Substance Abuse, Nutrition, Mental/Emotional Health, Growth and Development, Disease Prevention, First Aid and Safety, Family Life, AIDS, Community Health and Self-Esteem. **Required for graduation.**

FULL YEAR PHYSICAL EDUCATION

PE100YTDGE 1 Credit Grades 9-12

This course introduces a variety of individual and team sports. Instructional emphasis will be on basic skills, rules, strategies and fitness. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION 1

PE1015TDGE 0.5 Credit Grades 9-12

10th-12th grade students will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION 2

PE1025TDGE 0.5 Credit Grades 9-12

10th-12th grade students will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced. **Prerequisite: P.E. 1.**

PHYSICAL EDUCATION 3

PE1035TDGE 0.5 Credit Grades 10-12

10th-12th Grade students will develop their own conditioning program. Individual and team sports will be played at a competitive level. Students will be introduced to strategies and advanced training techniques. Values such as teamwork, sportsmanship and respect for differences will be enforced. **Prerequisite: P.E. 1 and 2.**

BUSINESS CAREER AND TECHNICAL EDUCATION BY ARRANGEMENT

BUSINESS INTERNSHIP-SEMESTER

BE2105TDGE 0.5 Credit Grades 11-12

This is a 5 credit course offering an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions.

BUSINESS INTERNSHIP-YEAR

BE211YTDGE 1 Credit Grades 11-12

is an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions.
Prerequisites: Approval of the Coordinator and Computer Applications teachers and a grade of 75 or better in Computer Courses.

Early College Experience (ECE) Courses

ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to many colleges

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MATHEMATICS

STATISTICS - 1100Q - UCONN ECE

MA301YTDCL 1 Credit - STEM Grade 11-12

A standard approach to statistical analysis primarily for students of business and economics; elementary probability, sampling distributions, normal theory estimation and hypothesis testing, regression and correlation, exploratory data analysis. Learning to do statistical analysis on a personal computer is an integral part of the course. Students who earn a passing grade may earn college credit. **(4 College Credits Possible)**

CALCULUS I - 1131Q - UCONN ECE

MA401YTDCL 1 Credit - STEM Grade 11-12

Students who matriculate to UCONN cannot receive credit for MATH 1131Q and either MATH 1120, 1121, 1126, 120 or1151 for not more than two credits with the permission of the instructor, if students received credits for PHYS 1201. Suitable for students

with some prior calculus experience. Limits, continuity, differentiation, antidifferentiation, definite integrals, with applications to the physical and engineering sciences. Sections with QC credit integrate computer-laboratory activity. Students who earn a passing grade may earn college credit. **Prerequisite: pre-calculus (4 College Credits Possible)**

CALCULUS II - 1132Q - UCONN ECE

MA402YTDCL 1 Credit - STEM Grade 11-12

Transcendental functions, formal integration, polar coordinates, infinite sequences and series, vector algebra and geometry, with applications to the physical sciences and engineering. Sections with QC credit integrate computer-laboratory activity. Students who earn a passing grade may earn college credit. **Prerequisite: MATH 1131Q (4 College Credits Possible)**

INTRO TO ALGEBRA & STATISTICS HCC MATH 103

MA103YTDCL 1 Credit - STEM Grade 11-12

This introductory course to College Algebra and statistical procedures. This course is intended for students primarily in health and social sciences, liberal arts, and TEM. This course emphasizes the use of tables, graphs and elementary descriptive statistical applications. The course also introduces the student to the sampling and surveying done in many everyday life experiences. **Prerequisite: Algebra I**

CRYPTOLOGY HCC MATH 298

MA204YTDCL 1 Credit - STEM Grade 11-12

This course will explore Cryptology, the study of coding and decoding secret messages. Methods of cryptology and cryptanalysis, using steganography, modular arithmetic, algebra, geometry, number theory, statistical analysis, and problem-solving will be discussed. The history of cryptology and its ties to major historical events will be presented. Technology will be utilized to encrypt and decrypt more advanced ciphers, which will lead to discussions on ethical considerations and the future of cryptology. (Steganography is the practice of concealing a file, message, image or video within another file, message, image or video.) Students will learn how to interpret and create ciphers, explore the historical importance of codes in warfare and codebreaking in the 20th century, and how to utilize previous knowledge of mathematics and computer science to uncover, explain and develop their own ciphers.

COMPTIA A+ CERTIFICATION HCC

CS167YTDCL 1 Credit - STEM Grade 11-12

The CompTIA A+ certification is the starting point for a career in IT. This course prepares students for the industry-recognized certification and covers all topics related to the CompTIA A+ 200-1001 and CompTIA A+ 220-1002. The CompTIA A+ 220-1001 covers PC hardware and peripherals, mobile device hardware, networking and troubleshooting hardware and network connectivity issues. CompTIA A+ 220-1002 covers installing and configuring operating systems including Windows, iOS, Android, Apple OS X and Linux. It also addresses security, the fundamentals of cloud computing and operational procedures.

ECE PRECALCULUS - MATH 109 UB

MA524YDECL 1 Credit - STEM Grades 10-12

A rigorous course for those intending to study calculus at the university level that is heavily focused on all topics trigonometry, as well as analytic geometry, conic sections, limits, introduction to derivatives, and the applications of these mathematical skills in modeling of real life situation. **Prerequisites: B or higher in Algebra 2 with Teacher Recommendation (4 College Credits Possible)**

SCIENCE

GENERAL PHYSICS I - 1201 - UCONN ECE

SC520YTDCL 1 Credit - STEM Grade 11

Basic facts and principles of physics. The laboratory offers fundamental training in precise measurements. Students who earn a passing grade may earn college credit. **(4 College Credits Possible)**

GENERAL PHYSICS II -1202 - UCONN ECE

SC522YTDCL 1 Credit - STEM Grade 12

Basic facts and principles of physics. The laboratory offers fundamental training in precise measurements. Students who earn a passing grade may earn college credit. **Prerequisite: General Physics 1201 (4 College Credits Possible)**

GENERAL PHYSICS W/CALCULUS I - 1401 - UCONN ECE

SC521YTDCL 1 Credit - STEM Grade 11

Students who matriculate to UConn may take PHYS 1401 for not more than two credits, with the permission of the instructor, if students received credits for PHYS 1201. Quantitative study of the basic facts and principles of physics including a lab component. The laboratory offers fundamental training in physical measurements. Recommended for students planning to apply for admission to medical, dental or veterinary schools and also recommended for science majors for whom a one year introductory physics course is adequate. Students who earn a passing grade may earn college credit. **(4 College Credits Possible)**

GENERAL PHYSICS W/CALCULUS II -1402 - UCONN ECE

SC523YTDCL 1 Credit - STEM Grade 12

PHYS 1402: General Physics with Calculus II: Quantitative study of the basic facts and principles of physics including a lab component. The laboratory offers fundamental training in physical measurements. Students who earn a passing grade may earn college credit. **Prerequisite: Physics 1401 (4 College Credits Possible)**

APPLIED MECHANICS I - CE2110 - UCONN ECE

SC524YTDCL 1 Credit - STEM Grade 12

CE 2110: Applied Mechanics I: Fundamentals of statics using vector methods. Resolution and composition of forces; equilibrium of force systems; analysis of forces acting on structures and machines; centroids; moment of inertia. Students who earn a passing grade may earn college credit. **(3 College Credits Possible)**

ENVIRONMENTAL SCIENCE - NRE 1000 - UCONN ECE

SC102YTDCL 1 Credit - STEM Grade 11

An introduction to basic concepts and areas of environmental concern and how these problems can be effectively addressed. Students who earn a passing grade may earn college credit. **(3 College Credits Possible)**

BIOLOGY I - 1107 - UCONN ECE

SC510YTDCL 1 Credit - STEM Grade 11

A course in high school level chemistry or concurrent enrollment in CHEM 1127 are recommended for students enrolling in 1107. Designed to provide a foundation for more advanced courses in Biology and related sciences. Topics covered include molecular and cell biology, animal anatomy and physiology. Laboratory exercises in BIOL 1107 include dissection of preserved animals. Students who earn a passing grade may earn college credit. **(4 College Credits Possible)**

BIOLOGY II -1108 - UCONN ECE

SC511YTDCL 1 Credit - STEM Grade 11

Designed to provide a foundation for more advanced courses in Biology and related sciences. Topics covered include ecology, evolution, genetics, and plant biology. Students who earn a passing grade may earn college credit. **(4 College Credits Possible)**

BIOTECHNOLOGY - SPSS3230 - UCONN ECE

SC512YTDCL 1 Credit - STEM Grades 11-12

PLSC 3230: Biotechnology-Science, Application, Impact, Perception: Scientific, legal and ethical aspects of Biotechnology, application in agriculture, health medicine, forensics, and the environment. Students who earn a passing grade may earn college credit. **(2 College Credits Possible)**

CHEMISTRY 127 - UCONN ECE

SC502YTDCL 1 Credit - STEM Grades 11-12

provides a foundation for advanced courses in chemistry, including atomic theory, laws and theories concerning the physical and chemical behavior of gases, liquids, solids and solutions. Quantitative measurements illustrating the laws of chemical combination, as well as equilibrium in solutions and qualitative reactions of the common cat ions and anions are explored within the laboratory component of this course. Students who earn a passing grade may earn college credit. **Prerequisites: Successful completion of Chemistry 1 & Algebra 1 courses. Algebra 2 concurrent or completed. (4 College Credits Possible)**

CHEMISTRY 128 - UCONN ECE

SC503YTDCL 1 Credit - STEM Grades 11-12

continues the ECE Chemistry 127 course. Topics include: acid-based chemistry, equilibria (gaseous and solution), kinetics, solution theory and electrochemistry. Quantitative and qualitative measurements illustrating key concepts will be performed in the laboratory. Students who earn a passing grade may earn college credit. **Prerequisites: Successful completion of ECE Chemistry 127. (4 College Credits Possible)**

DIGITAL FOUNDATION - DMD1000-UCONN ECE

SC530YTDCL 1 Credit - STEM Grades 11-12

DMD1000: Digital Foundation: Introductory studio experience in designing for the digital arts; concepts, media and strategies for making creative digital work. Students who earn a passing grade may earn college credit. **(3 College Credits Possible)**

ENGR 111: INTRODUCTION TO ENGINEERING 1 - UB

TE500YTDCL 1 Credit - STEM Grade 10-12

Intro to Engineering is a multidisciplinary engineering course that combines systems design, robotics, computer, electronic, mechanical and control engineering. Students study analog and digital electronics, electrical engineering basics, such as sensors, logic gates, op-amps, controllers and microprocessors. Students interested in studying mechatronics can gain hands on experience working with pneumatics, hydraulics, electricity and manufacturing of mechanical parts and machines through degree and certificate programs a colleges and universities. Students who earn a passing grade may earn college credit. **Prerequisite: Principal of Engineering (3 College Credits Possible)**

ENGLISH

ENG 1011: WRITING THROUGH LITERATURE – UCONN ECE

EN501YTDCL 1 Credit - HUMANITIES Grade 12

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while 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.
UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to many colleges and universities. **(4 College Credits Possible)**

ENG 1010: ACADEMIC WRITING — UCONN ECE

EN502YTDCL 1 Credit - HUMANITIES Grade 11

Students apply for acceptance to UConn's Early College Experience Seminar in Academic Writing (the first semester composition course required of all freshmen). Those who earn a C and complete the thirty pages of writing and final examination will receive four hours of college credit, which is transferable to most universities. This year-long workshop introduces students to the type and level of academic writing that will be expected of them in the university and centers around the close reading, interpretation, and re-evaluation of challenging, non-fiction interdisciplinary readings, which become the focus of the various writing assignments. Much of the work of the course is on re-reading and re-vising previous drafts. A dedication to the writing process is expected of all students and part of their learning experience will be in providing peer feedback, which benefits their writing as well. Students who earn a passing grade may earn college credit. **(4 College Credits Possible)**

WORLD LANGUAGE

SPAN 3177: COMP & READ FOR SPANISH SPEAKERS — UCONN ECE

WL122YTDCL 1 Credit - HUMANITIES Grade 12

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while in high school. This challenging courses covers grammar, written composition, and reading for speakers of Spanish with little formal training. Emphasis is on Puerto Rican literature. UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to many colleges and universities. **(3 College Credits possible)**

SPAN 3178: INTERMEDIATE SPANISH COMPOSITION — UCONN ECE

WL123YTDCL 1 Credit - HUMANITIES Grade 11

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while in high school. This course provides a thorough review of grammar and methodical practice in composition leading to command of practical idioms and vocabulary. UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to many colleges and universities. **(3 College Credits possible)**

CHIN 1114: INTERMEDIATE CHINESE II- UCONN ECE

WL404YDECL 1 Credit - HUMANITIES Grade 11

Intermediate Chinese is a continuation of oral, written and reading skills as related to Mandarin Chinese. This course will help students acquire increasingly complex grammatical structures and usage of formal vocabulary; and improve students' accuracy and standardness in speaking including formal presentation. Additionally students will increase their awareness of Chinese culture, history and social norms.

Prerequisite: 3 years of high school Chinese **(4 College Credits possible)**

SOCIAL STUDIES

HISTORY I 1501 - UCONN ECE

SS311YTDCL 1 Credit - HUMANITIES Grades 11-12

Surveys political, economic, social, and cultural developments in American history through the Civil War and Reconstruction. Students who earn a passing grade may earn college credit. **(3 College Credits possible)**

HISTORY II 1502 - UCONN ECE

SS312YTDCL 1 Credit - HUMANITIES Grade 11

Surveys political, economic, social, and cultural developments in American history from 1877 to the present. Students who earn a passing grade may earn college credit. **(3 College Credits possible)**

MODERN WESTERN TRADITIONS - 1300 - UCONN ECE

SS104YTDCL 1 Credit - HUMANITIES Grades 11-12

An analysis of the traditions and changes which have shaped Western political institutions, economic systems, social structures and culture in ancient and medieval times. Students who earn a passing grade may earn college credit. **(3 College Credits Possible)**

MODERN WESTERN TRADITIONS - 1400 - UCONN ECE

SS103YTDCL 1 Credit - HUMANITIES Grade 12

History of political institutions, economic systems, social structures, and cultures in the modern Western world. Students who earn a passing grade may earn college credit. **(3 College Credits Possible)**

SEMINAR IN AMERICAN STUDIES - AMST 1201- UCONN ECE

SS107YTDCL 1 Credit - HUMANITIES Grade 12

The Seminar in American Studies introduces methods of study that looks beyond the formal disciplinary bounds that defines university education to see what happens when history, art, literature, popular culture, politics, and law are all used in an exploration of the American experience. The course studies specific American ethnic or racial groups which are considered to be both independent of and included within the course. This includes African American studies, Latin American studies, Asian American studies, American Indian studies, and others. Students who earn a passing grade may earn college credit. **(3 College Credits Possible)**

FINE ART

ADSN-105: Drawing 1-UB

FA304YDECL 1 Credit - HUMANITIES Grades 11-12

Drawing I course is currently offered at the University of Bridgeport. 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 tool for visual thinking will also be introduced. **(3 College Credits Possible)**

HCC ART E111 - DRAWING

VA251YDECL 1 Credit - HUMANITIES Grades 11-12

Housatonic Community College course that provides the examination of the fundamentals of drawing. Students will work on the skillful use of line, value distribution, composition, and perspective systems. Drawing as a tool for visual thinking will also be introduced. **(3 College Credits Possible)**

Harding High School

379 Bond Street
Bridgeport, CT 06610
(203) 275-2751

"Home of the Presidents"

Warren Harding High School Core Values Statement At Warren Harding High School, we are committed to creating a positive learning environment that fosters respect, academic excellence and **PRIDE** by encouraging independent thinking within a culture of team-work and cooperation.

Partnership **R**esponsibility **I**ntegrity **D**etermination **E**xcellence

Administration
Mr. Dane Brown, Principal
Mr. Matthew Corcoran, Assistant Principal: ***Health Careers Magnet Academy***
Mr. Vernon Thompson, Assistant Principal: ***Law and Public Service Academy***
Mrs. Kathryn Silver, Assistant Principal: ***New Scholars Academy***

School Counselors
Ms. Alicia Green
Mr. Gena Fuller
Ms. Melissa Williams

Warren Harding High School Academies

Law and Public Service Academy – LPSA
The Law and Public Service Academy at Warren Harding High School is designed to educate young men and women in careers in the areas of Law, Public Service, Public Policy and Government Service. We educate

the whole person through the offering of a comprehensive academic course of studies, with college credit granting opportunities, as well as increase civic awareness through instruction and service-learning opportunities. All students will be fully prepared for multiple post-secondary options and acquire 21st century job skills.
Administrator: Mr. Vernon Thompson: ***vthompson@bridgeportedu.net***

Health Careers Magnet Academy – HCMA
The Health Careers Academy at Warren Harding High School is committed to providing a high-quality education for all students with a focus on preparation for careers in the health care field. The academy includes The Medical Magnet Program, which is open to all Bridgeport students, includes college level coursework and authentic career experiences through multiple partners including Bridgeport Hospital, Fairfield University, and the University of Bridgeport. HCMA students have the opportunity to graduate with specific job ready skills such as the credentials to work as a Certified Nurse's Assistant.
Administrator: Mr. Matthew Corcoran: ***mcorcoran@bridgeportedu.net***

New Scholars Academy – NSA
The New Scholars Academy at Harding High School is dedicated to help your child experience academic, social, and emotional growth. Our dedicated staff provides 9th grade students a rigorous, relevant, well designed curriculum that affords opportunities to think critically and integrate their ideas while embracing the value of collaborative efforts to cultivate the social and emotional well-being of all students. Students enrolled in the New Scholars Academy can schedule 4 core classes, an elective choice of foreign language, PE or several 1/2 year semester courses to experience the Health Careers Magnet Academy or the LPS Honors Program.
Administrator: Mrs. Kathryn Silver ***ksilver@bridgeportedu.net***

WARREN HARDING HIGH SCHOOL COURSE OFFERINGS

New Scholars Academy – NSA
Health Careers Magnet Academy – HCMA
Law and Public Service Academy - LPSA

ENGLISH

HUMANITIES LAB I

EN001YTDGE **0.5 Credit – HUMANITIES** **Grade 9th**

This is a humanities course taken concurrently with English 9 and/or World Civilization and is designed to extend time and learning opportunities through interventional support or enrichment.

HUMANITIES LAB II

EN002YTDGE **1.0 Credit – HUMANITIES** **Grade 10th**

This is a humanities course taken concurrently with English 10 and/or Civics and is designed to extend time and learning opportunities through interventional support or enrichment.

HUMANITIES LAB III

EN003YTDGE 1.0 Credit – HUMANITIES Grade 11th

This is a humanities course designed for 11th graders who are in need of literacy and reading comprehension support.

ENGLISH 9

EN101YTDGE 1.0 Credit – HUMANITIES Grade 9th

English 9 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. Students study literature, literary nonfiction, and composition. The major focus is on engaging students in a close, critical analysis of the qualitative features of complex texts ranging from short stories, essays, biographies, autobiographies, memoirs, novel, poetry, speeches, and plays. While all literary genres are included, emphasis is on the short story and engaging in discussion and written response to text dependent questions. The composition portion of this course concentrates on three forms of writing: narrative, informative/explanatory, and argumentative that includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with emphasis on writing over shorter time frames such as a single sitting or over a day or two from sources. In conjunction with reading and writing, students develop academic vocabulary, conventions of writing and speaking and listening skills. A short research project and an oral presentation with media are required.

ENGLISH 9 HONORS

EN101YTDHO 1.0 Credit – HUMANITIES Grade 9th

This English 9 honors course encompasses the objectives and requirements of the regular English 9 curriculum but requires students to work more with complete pieces of literature and literary nonfiction texts and fewer short stories with engagement in discussion and written responses to text dependent questions. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts across longer pieces of texts. Students will compose narrative, informative/explanatory, and argumentative texts that emphasize writing routinely over extended timeframes for research, reflection, and revision and writing over shorter time frames such as a single sitting or over a day or two. In conjunction with reading and writing, students develop academic and domain-specific vocabulary, develop knowledge of figurative language, conventions of writing and speaking and listening skills. A research project and an oral presentation with media are required.

ENGLISH 10

EN201YTDGE 1.0 Credit – HUMANITIES Grade 10th

English 10 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. This course introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with a balance between writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required.

ENGLISH 1004 UCONN ECE HONORS

EN503YDECL 1.0 Credit – HUMANITIES Grade 10th

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while 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. UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to many colleges and universities. This course emphasizes academic writing through interdisciplinary reading. **Prerequisites**: **Successful completion of two years of high school English and teacher recommendation**. (4 credits possible)

ENGLISH 11

EN301YTDGE 1.0 Credit – HUMANITIES Grade 11th

English 11 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Students will compose narrative, informative/explanatory, and argumentative texts and will analyze, evaluate, and integrate information from sources to support their composition. Composition includes writing routinely over extended timeframes for research, reflection, and revision from three or more sources with a balance between writing over shorter time frames such as a single sitting or over a day or two. Students will publish essays, book reviews, an interdisciplinary American literature project, resume, application, and cover letter; college essay, formal research paper, an autobiographical sketch, and a media project. Students read literary nonfiction, autobiographies, biographies, and novels, most selected for literary merit and their applicability to self-discovery and personal responsibility. The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills. Oral language and computer skills are an integral component of English 11 and an oral research presentation with media is required.

ENG 1010: ENGLISH - UCONN ECE

EN502YTDCL 1.0 Credit – HUMANITIES Grade 11th

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while 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. UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to many colleges and universities. This course emphasizes academic writing through interdisciplinary reading. **Prerequisites**: **Successful completion of two years of high school English and teacher recommendation (4 college credits possible)**

ENGLISH 12

EN401YTDGE 1.0 Credit – HUMANITIES Grade 12th

English 12 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Composition at the beginning of the course includes the college essay, applications, and resumes. Additionally, students will compose essays, poems, a formal speech, a formal research paper, editorials, letters to editor, critiques, media projects using a variety of text types (i.e., narrative, informative/explanatory, and argumentative) and for a variety of purposes. Students will analyze, evaluate, and integrate information from multiple sources to support their composition and students will also write for shorter time frames such as a single sitting or over a day or two. Students will read literary nonfiction, plays, short stories, novels, and other works. This course focuses on literary traditions among African-Americans and places those traditions in their historical and world context as well as other pieces of literature from around the world, most noted for literary merit (e.g., Letter from Birmingham Jail, Don Quixote, and Shakespeare). The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills to further education, college, or career. Oral language and computer skills are an integral component of English 12 and an oral research presentation with media is required.

ENG 1011: ENGLISH - UCONN ECE

EN501YTDCL 1.0 Credit – HUMANITIES Grade 12th

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while 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. UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive university credit. College credits are transferable to many colleges and universities. This course emphasizes academic writing through literary reading.
Prerequisites: **Successful completion of two years of high school English and teacher recommendation (4 College credits possible)**

AFRICAN AMERICAN LITERATURE

EN411YTDGE 1.0 Credit – HUMANITIES Grade 12th

African American Literature (Full Year Course) This course surveys traditional African literature with an emphasis on the pervasive influence of myths, folktales, and proverbs upon the critical, dramatic, fictional, and poetic literature written by African Americans. Special emphasis is given to the chronological development from the slave narrative to the Harlem Renaissance and mid-twentieth century and contemporary works. This class will make clear the presence of a strong black intellectual tradition, which values learning in itself and for the range of freedoms that it can bring. Students write in various formats (both formal and informal) and speak—mostly informally in discussions, but formally in the expository paper that they research, prepare, and deliver. Additionally, intensive summer reading is mandatory; refer to course instructor for specific assignments.

JUSTICE THROUGH LITERATURE

EN313YTDGE 1.0 Credit – HUMANITIES Grade 11th & 12th

This elective analyses the concept and themes of justice found in selected fiction and non-fiction literary texts. Literature studied allows students to critique legal and social justice issues. Texts such as "To Kill a Mockingbird" provide a lens through which to study justice and judgment.

WRITERS WORKSHOP

EN404YTDGE 1.0 Credit – HUMANITIES Grade 11th & 12th

Course is an introduction the student to creative writing skills. Students learn to develop their creative expression through a variety of genres and modes including poetry, narrative short fiction, memoir, and literary essay.

MATHEMATICS

STEM LAB I

MA001YTDGE 1.0 Credit – STEM Grades 9th

This course is a STEM (Science Technology Engineering and Math) course taken concurrently with Algebra I or Physical Science and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

STEM LAB II

MA002YTDGE 1.0 Credit – STEM Grade 10th

This course is a STEM (Science Technology Engineering and Math) course taken concurrently with Geometry or Biology and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

STEM LAB III

MA0032YTDGE 1.0 Credit – STEM Grade 11th

This course is a STEM (Science Technology Engineering and Math) for 11th grade students who are in need of additional numeracy support in Science and Math.

ALGEBRA 1

MA101YTDGE 1.0 Credit – STEM Grades 9th

Algebra 1 involves applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents and performing operations with polynomials. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections and communicating mathematically.

ALGEBRA 1 HONORS

MA101YTDHO 1.0 Credit – STEM Grade 9th

This honors course is designed for students who have exhibited a high degree of skill in both mathematical manipulation and logical thinking. Topics include applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents, performing operations with polynomials, solving and graphing quadratic equations, and solving and graphing linear inequalities. Considerable emphasis is placed on the applications of concepts through the use of open-ended word problems, performance assessments, technology, multiple representations, making mathematical connections and communicating mathematically. **Prerequisite**: (Middle School Students) Grade 8 Math with minimum of ”B+”, Teacher Recommendation, and Grade 8 end-of-year test score of 75 or higher.

GEOMETRY

MA201YTDGE 1.0 Credit – STEM Grades 9th -12th

Geometry includes the concepts of geometric figures, parallelism, congruency, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and computer software; mathematical connections; critical thinking skills; reasoning; and communicating mathematically. Hands-on activities will also be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts.

Prerequisite: **Algebra I**

GEOMETRY HONORS

MA201YTDHO 1.0 Credit – STEM Grades 9th –11th

This honors course emphasizes the further development of skills, techniques and connections of geometric concepts. Topics include in-depth study of the properties and classification of triangles and polygons, similarity and congruency, transformations, properties of circles including arcs, chords and tangents, trigonometry and deductive reasoning and proof. Hands-on activities will be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts.

Prerequisite: **Algebra I and teacher recommendation**

ALGEBRA 2

MA202YTDGE 1.0 Credit – STEM Grades 11th & 12th

Algebra 2 seeks to develop a higher degree of skill and accuracy in algebraic techniques and understanding of the structure of mathematical systems. Topics include a review and an extension of many concepts developed in Algebra 1, such as solving and graphing linear and quadratic equations. Other topics incorporated in this course include: solving and graphing exponential, logarithmic and rational functions and writing and identifying properties of conic sections. Emphasis is placed on problem solving using graphing calculator and computer activities, mathematical reasoning and connections. **Prerequisites**: **Algebra I and Geometry**

ALGEBRA 2 HONORS

MA202YTDHO 1.0 Credit – STEM Grades 11th & 12th

This honors course expands on the topics of Algebra 1 Honors and provides further development of the concept of nonlinear functions. The expanded topics include quadratic, exponential, rational, and polynomial functions, sequences and series and the complex numbers system. Emphasis will be placed on the theory and practical applications of Algebra through the use of graphing calculators and related computer software.

Prerequisite: **Algebra I, Geometry, and Teacher Recommendation**.

PROBABILITY & STATISTICS

MA301YTDGE 1.0 Credit – STEM Grades 11th & 12th

Probability & Statistics introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will work with statistical measures of central tendency and spread and methods of sampling and experimentation. Students will use multiple representations to present data, including written descriptions, numerical statistics, formulas and graphs.

Prerequisite: Algebra I.

PRE-CALCULUS

MA400YTDGE 1.0 Credit – STEM Grades 11th & 12th

Pre-Calculus provides students with an intensive, accelerated, and rigorous program in trigonometry, problem solving with mathematical modeling to real world situations, and applications of analytical concepts. A special emphasis will include higher algebraic techniques and graphical representations using technology. This course is a requirement for AP Calculus. **Prerequisites**: **Algebra II or Trigonometry**

CALCULUS I

MA401YTDGE 1.0 Credit – STEM Grades 11th & 12th

Calculus is intended for students who have a thorough knowledge of college preparatory mathematics: Algebra, Geometry, Trigonometry and Analytical Geometry or Pre-Calculus. Topics include polynomial functions, trigonometric functions, exponential and logarithmic functions, the derivative and its applications, integration and its applications and methods, and the definite integral and its applications. **Prerequisite**: **Pre-Calculus**.

SAT PREP: MATH

MA304STDGE 0.5 Credit – STEM Grades 11th & 12th

SAT Prep Math is a semester course designed to provide students with extensive training in the areas of algebra and geometry that are required on the Scholastic Aptitude Test. Various methods of solving SAT-type problems will be covered. This course is paired with SAT Prep-English. All college-bound juniors are encouraged to enroll in this course. **Prerequisite**: **Algebra I**

SCIENCE

PHYSICAL SCIENCE

SC101YTDGE 1.0 Credit – STEM Grade 9th

Physical Science is a full year course introducing the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the

structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. This course must be passed for entrance into Biology.

PHYSICAL SCIENCE- HONORS

SC101YTDHO 1.0 Credit – STEM Grade 9th

This course is a full-year course introducing the basic principles and applications of matter, its properties and reactions, interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. There will be one lab period per week.

BIOLOGY

SC110YTDGE 1.0 Credit – STEM Grades 10th

Biology is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. Required of all Grade 10 students. There will be one lab period per week.

BIOLOGY – HONORS

SC110YTDHO 1.0 Credit – STEM Grade 9th

This introductory honors course of Biology is a yearlong survey of such topics as cellular biology, biochemistry, taxonomy, evolution, human body systems, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas. CAPT preparation is incorporated into the design of this course. Runs concurrently with Physical Science Honors.

CHEMISTRY

SC201YTDGE 1.0 Credit – STEM Grades 11th & 12th

is a full year course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course stresses chemical reactions, their occurrences, and the energy transfers associated with these reactions. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite**: **Must pass one tier I non-life science course and one year of Algebra I.**

CHEMISTRY – HONORS

SC201YMAMH 1.0 Credit – STEM Grades 10th -11th

A full year Honors course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course emphasizes the foundation topics in Measurement & Uncertainty within the laboratory skills developed in the topics of Atomic Structure, Stoichiometry, Periodicity, Bonding, Gas Laws, Energetics, Acid-Base Theory and Organic Chemistry as related. It is accompanied by the appropriate laboratory work to prepare a student for further studies in science as a career or in college. The mathematical applications are in greater depth than Chemistry. **Prerequisite**: **Must pass one tier I non-life science course and one year of Algebra I.**

ENVIRONMENTAL SCIENCE

SC102YTDGE 1.0 Credit – STEM Grades 11th & 12th

Environmental Science is a full year course which combines basic concepts from earth and environmental science. Topics include a history of our planet through fossils, mineralogy, plate tectonics, and oceanography. Environmental studies includes investigating the quality of our air, water, soil and examining the biotic and abiotic influences on ecosystems and the various factors which aide in determining the quality of life on earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

FORENSIC SCIENCE

SC203YTDGE 1.0 Credit – STEM Grades 11th & 12th

Forensic Science is a full-year interdisciplinary course which includes the application of scientific knowledge to solve crimes and legal problems. Students will have an opportunity to delve into the history of forensic science and possible career opportunities. This course is taught in a multidisciplinary approach, which includes the sciences (life science, chemistry, physics, and earth science), mathematics, technology, language arts and social studies. **Prerequisite: Biology**

MEDICAL CONNECTIONS 1

SC404STDGE 0.5 Credit – STEM Grade 9th

A half year course for freshmen interested in the medical magnet program. This course provides a history and overview of medicine its developments, early exploits and innovations.

MEDICAL CONNECTIONS 2

SC405STDGE 0.5 Credit – STEM Grade 9th

A half year course for freshmen that covers all types of infections (bacterial/viral) and diseases, their cures/medical treatments as well as the development and use of universal precautions and personal hygiene.

MEDICAL CONNECTIONS 3

SC406STDGE 0.5 Credit – STEM Grade 10th

A half year course where students will begin job shadowing as well as discuss disease states and the career tracks that are aligned with the specific disease states.

MEDICAL CONNECTIONS 4

SC407STDGE 0.5 Credit – STEM Grade 10th

A half year course that will allow students to choose between a medical based career or a lab science career.

ANATOMY & PHYSIOLOGY – HEALTH MAGNET

SC310YTDMA 2.0 Credits – STEM Grade 11th

Anatomy & Physiology is an academically challenging course of college lectures, labs, and clinical applications on the organization of the body, biochemistry, basic structure and function of cells, tissues and the skeletal, muscular and nervous systems. This course is equivalent to first semester anatomy and physiology courses taken in college. Students are required to take all college lab practical and written exams.

Prerequisites: **Biology and Chemistry**.

ANATOMY & PHYSIOLOGY

SC310YTDGE 1.0 Credit – STEM Grade 11th

Anatomy & Physiology is an academically challenging course of college lectures, labs, and clinical applications on the organization of the body, biochemistry, basic structure and function of cells, tissues and the skeletal, muscular and nervous systems. This course is equivalent to first semester anatomy and physiology courses taken in college. Students are required to take all college lab practical and written exams.

Prerequisites: **Biology and Chemistry**.

CERTIFIED NURSE ASSISTANT (C.N.A)

SC409YTDGE 2.0 Credits – STEM Grade 12th

This course prepares the scholar as a nurse's aide with immediate marketable skills. The classroom phase includes the study and application of the various methods, procedures, skills and medical terminology required for the needs and comforts of the patient. The clinical phase includes the application of the skills learned in the classroom and during clinical phases. To be eligible for state certification, the scholar must complete 67 hours of clinical experience and 120 hours of classroom experience.
Prerequisites: **Medical Career Magnet Scholars with Department Permission.**

AH 2001: MEDICAL TERMINOLOGY

SC514YTDCL 0.5 Credits – STEM Grade 12th

This course prepares the scholar as a nurse's aide with immediate marketable skills. The classroom phase includes the study and application of the various methods, procedures, skills and medical terminology required for the needs and comforts of the patient. The clinical phase includes the application of the skills learned in the classroom and during clinical phases. To be eligible for state certification, the scholar must complete 67 hours of clinical experience and 120 hours of classroom experience.
Prerequisites: **Medical Career Magnet Scholars with Department Permission.**

SOCIAL STUDIES

WORLD CIVILIZATION

SS101YTDGE 1.0 Credit - HUMANITIES Grade 9th

This course explores the spectrum of World History from Neolithic times through World War I. Assured experiences focuses on the development of critical thinking skills, historical habits of mind, historical writing and reading historical texts.

WORLD CIVILIZATION – HONORS

SS101YTDHO 1.0 Credit - HUMANITIES Grade 9th

An honors level exploration of World History from Neolithic times through World War I. Assured experiences focuses on the development of critical thinking skills, historical habits of mind, historical writing and reading historical texts.

CIVICS

SS201STDGE 0.5 Credit - HUMANITIES Grade 10th

This course provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

CIVICS- HONORS

SS201STDHO 0.5 Credit - HUMANITIES Grade 10th

An honors level course that provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

CIVICS- LPS HONORS

SS201YTDHO 1.0 Credit - HUMANITIES Grade 10th

An honors level course that provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.
Civics is the study of the rights, responsibilities and duties of citizens in the United States. The program of study includes an investigation of the origin of American government, the Bill of Rights, branches of government, the voting process, state and local government, community issues and how the American economy works.

EARLY AMERICAN REPUBLIC

SS412STDGE 0.5 Credit - HUMANITIES Grade 10th

This course covers American history from 1800-1865. Topics include Westward Expansion, Early Industrialization, Sectionalism, and the Civil War. Assured experiences address analysis, evaluation and synthesis of historical documents and the use of evidence to support an argument.

US HISTORY

SS301YTDGE 1.0 Credit - HUMANITIES Grade 11th

This course focuses on the development of America as a modern industrial nation and as a global power. Topics cover events from
1865 to the present. Students are guided in conducting historical research and in developing and defending historical interpretation.

US HISTORY – AP

SS301YTDAP 1.0 Credit - HUMANITIES Grades 11th & 12th

This course is a, comprehensive, college level survey of United States history in which students gain a solid foundation in the social, political, economic, and intellectual forces that impact our culture. Each marking period, students are required to complete a longterm assignment involving extensive research, reading and writing. Students will be expected to take the AP exam in May, which may lead to college credit.
Prerequisites: World Civilization, Civics and recommendation of the previous social studies teacher.

INTRO TO PSYCHOLOGY

SS401STDGE 0.5 Credit - HUMANITIES Grade 12th

This course is a one semester comprehensive, college-level survey course 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 within psychology.

INTRO TO SOCIOLOGY

SS402STDGE 0.5 Credit - HUMANITIES Grade 12th

This course is an elective course for seniors that examines social structure. Concepts, terminology, and the techniques of Sociology are explained so that students can investigate problems that are relevant to young adults and society at large.
Prerequisites: World Civilization and United States History.

PSYCHOLOGY – AP

SS401YTDAP 1.0 Credit - HUMANITIES Grades 11-12th

This course is a one-year comprehensive, college level survey course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are introduced to psychological facts, principles, and phenomena associated with each of the major sub-fields within psychology. Students will be expected to take the A.P. exam in May, which may lead to college credit.

AFRICAN AMERICAN STUDIES

SS422YTDGE 1 Credit - HUMANITIES Grade 11th & 12th

This semester course examines the culture and history of African-Americans throughout the history of our country and fosters an appreciation and understanding of the major struggles and triumphs of the African-American experience.

LPS LAW

SS441YTDGE 01 Credit - HUMANITIES Grades 10th

This course will introduce students to the essentials of law and the legal system. The course is divided between criminal and civil law. Criminal law and the changing juvenile justice system is an inherent part of the course. Emphasis is placed on the development of the student's critical thinking and problem solving skills in relationship to legal issues. This elective course is open LPSFA sophomores.

THE ETHICS OF NON-VIOLENCE

SS452YTDGE 1.0 Credit - HUMANITIES Grades 11th & 12th

Ethics introduces students to various issues facing the world today. Students will explore global economic systems, human rights, health, environmental issues, political systems, gender roles and minority group relations in a changing world. This class is designed to eliminate much of the confusion surrounding these issues and allow students to form their own opinions on matters that affect their world. Students will evaluate the issues and propose solutions from a variety of perspectives.

HRTS 1007: INTRODUCTION TO HUMAN RIGHTS

SS503YDECL 1.0 Credit - HUMANITIES Grades 11th & 12th

This course is designed as an introduction to the field of Human Development and Family. The class will provide students with an understanding of individual and family development over the life span. In particular, the course will focus on the developing individual within the context of the family system and the changes that occur in family systems over time. **(3 College Credits Possible)**

IMAGE OF AMERICA – AMERICAN CULTURE REFLECTED IN FILM

SS416STDGE 0.5 Credit - HUMANITIES Grades 11th -12th

A semester course that will consider the "image of America" as presented in the movies. Students will be able to understand how movies reflect the concerns and events of the times in which they were made. A focus will be on the social and political forces that shape American society. Major themes such as Racism in America, McCarthyism, and the Anti-Hero will be covered.

PERSPECTIVES ON RACE

SS451STDGE 0.5 Credit - HUMANITIES Grades 10th

Exploration of historical & contemporary issues surrounding race relations in the U.S.; from the American slave trade through current events. Partnership with Oxford High School includes cultural exchange component in order to broaden students' perspectives on race. (partnered with Civics 10th grade)

PHYSICAL/HEALTH EDUCATION

HEALTH

HE101STDGE 0.5 Credit Grades 10th- 12th

This course provides information to motivate students to protect, maintain and improve their health. Topics include: Substance Abuse, Nutrition, Mental/Emotional Health, Growth and Development, Disease Prevention, First Aid and Safety, Family Life, AIDS, Community Health and Self-Esteem. Required for graduation.

PHYSICAL EDUCATION 1

PE101STDGE 0.5 Credit Grades 10th- 12th

10th-12th grade students will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION 2

PE102STDGE 0.5 Credit Grades 10th- 12th

10th-12th grade students will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced.

PHYSICAL EDUCATION 3

PE103STDGE 0.5 Credit Grades 10th- 12th

10th-12th Grade students will develop their own conditioning program. Individual and team sports will be played at a competitive level. Students will be introduced to strategies and advanced training techniques. Values such as teamwork, sportsmanship and respect for differences will be enforced.

MUSIC/PERFORMING ARTS

BEGINNERS BAND

FA114YTDGE 1.0 Credit Grades 9th -12th

This course is an introduction to woodwind, brass and percussion instruments. Students will choose their focus instrument during the first week of school. Group and individual practice will be expected. There is a performance requirement for this class. This is a year-long course worth 10 points towards graduation. There also is a $30 a year maintenance fee. (Please note: Completion of 1st half of Book 1 for 8th Grade Placement)

INTERMEDIATE BAND

FA115YTDGE 1.0 Credit Grades 9th -12th

This course allows interested students grades 9-11 to continue their development of techniques learned in the elementary school instrumental program or in the Beginners Band class available at the secondary level. The successful completion of this course will enable the student instrumentalist to become a member of the Advanced Band. This is a year-long course worth 10 points towards graduation. There is a $30 a year maintenance fee. Prerequisite: Teacher Recommendation. (Please note: 1st Half of Book 2 for 8th

Gr. Placement-Band Lit. to 2 ½)

ADVANCED BAND

FA116YTDGE 1.0 Credit Grades 9th -12th

This course is designed for students grades 9-12 who are members of the high school performing band. This organization functions as a concert and marching band. Membership is by teacher recommendation only and requires participation in all school, community, and festival events. This is a year-long course worth 10 points towards graduation. There is a $30 a year maintenance fee. Prerequisite: Teacher Recommendation. PLEASE NOTE THIS COURSE MAY BE TAKEN MORE THAN ONCE FOR CREDIT.

CHOIR

FA132YTDGE 1.0 Credit Grades 9th -12th

This course is open to all students on a selective basis. This course explores a wide variety of choral music. The core curriculum emphasizes the basics of vocal technique, sight-reading, and music theory. There is a performance requirement for this class. This is a year-long course worth 10 points towards graduation.

INTERMEDIATE CHOIR

FA133YTDGE 1.0 Credit Grades 9th -12th

This course allows interested students to continue their development of techniques learned in the elementary school choral program or in the Beginners Choir class available at the secondary level. The successful completion of this course will enable the student to become a member of the Advanced Choir. There is a performance requirement for this class. Prerequisite: Introductory Choir or Teacher Recommendation. This is a year-long course worth 10 points towards graduation.

ADVANCED CHOIR

FA133YTDGE 1 Credit Grades 9th -12th

This course is a performance course offered to experienced music students grades 9-12 who are accomplished in vocal performance. Students will continue to develop vocal technique and musicianship. This group functions as a concert choir. Membership is by teacher recommendation only and requires participation in all school, community, and festival events. Prerequisite: Intermediate Choir or Teacher Recommendation. This is a year-long course worth 10 points towards graduation. PLEASE NOTE THIS COURSE CAN BE TAKEN MORE THAN ONCE FOR CREDIT.

INTRO TO MODERN BAND

FA117YTDGE 1.0 Credit Grades 9th -12th

Intro to Modern Band is an introductory course that utilizes popular music to introduce students to the guitar, bass, piano, and drums, (among other instruments.) Students learn to perform music they know, to compose and to improvise. Group and individual practice will be expected. There is a performance requirement for this class. This is a year-long course worth 10 points towards graduation. There is a $30 maintenance fee for this class.

MODERN BAND

FA118YTDGE 1.0 Credit Grades 9th-12th

Modern Band is open to students who have completed Modern Band-Intro and who are recommended by the instructor. It allows students to continue the development of their skills while advancing to more challenging and complex pieces of music, level 1. Students will be expected to perform individually and as an ensemble. There is a performance requirement for this class. This is a year-long course worth 10 points towards graduation. There is a $30 maintenance fee for this class. PLEASE NOTE THIS COURSE CAN BE TAKEN MORE THAN ONCE FOR CREDIT.

PIANO

FA125YTDGE 1.0 Credit Grades 9th -12th

This course is an introductory course for students who want to learn how to play the keyboard. Students will learn how to interpret basic notation, identify musical terms and symbols and play both alone and together in a group. This is a year-long course worth 10 points towards graduation.

PIANO 2

FA126YTDGE 1.0 Credit Grades 9th -12th

This course is a continuation of Class Piano I and will build upon the skills learned in that class. Students will continue to play both individually (intermediate level music) and as a group on more challenging and complex pieces of music. Prerequisite: Successful completion of Piano I class (or grade 8 Piano) and permission of the instructor. This is a year-long course worth 10 points towards graduation. PLEASE NOTE THIS COURSE CAN BE TAKEN MORE THAN ONCE FOR CREDIT.

REGIONAL CENTER FOR THE ARTS (RCA)

FA410YTDGE 2.0 Credits Grades 9th 12th

This course is a state-funded performing arts magnet program located at 23 Oakview Drive, Trumbull that provides Students with professional training in dance, music, and theatre. The program is open to students in grades 9-12 in the public schools of Bridgeport, Trumbull, Fairfield, Monroe, and Stratford. Classes meet Tuesday-Friday from 2:00-5:00 p.m. and transportation is provided by participating school districts. RCA looks for potential as well as developed talent; therefore, any interested student is encouraged to apply.

TECHNOLOGY EDUCATION

MEDIA TECHNOLOGY I

TE211YTDGE **1.0 Credit - STEM** **Grades 9th 12th**

During this course students will gain basic skills in planning, capturing, editing, and creating video and digital photography for personal and professional use. Responsible use of technology, digital ethics, digital citizenship and safe computer use will be an underlying theme in the course. Students will explore careers pathways in video production and photography. After learning the basic of photography, camera functions, video editing, media analysis, and filmmaking students will deliver a digital photo book and short video production.

MEDIA TECHNOLOGY II

TE212YTDGE **1.0 Credit - STEM** **Grades 9th 12th**

This project based advanced course has students working as school reporters athletic video representatives, and year book photographers along with other multimedia school based activities. Students apply techniques learned in Media Technology I with greater skill.

Prerequisite: Media Technology I and teacher recommendation.

BUSINESS CAREER AND TECHNICAL EDUCATION

COMPUTER APLICATIONS

CS100YTDGE **1 Credit - STEM** **Grades 9th 12th**

This course introduces students to hardware, software, computer careers and guest speakers, and the history of computers. This course is designed to engage the students using Word, Excel, PowerPoint, and Internet searching for research MLA Reports, memos, stock value/graphing through hands-on activities. Emphasis will also be placed on personal finance reading and concepts, writing skills, and personality/career identification.

ACCOUNTING I

BE101YTDGE **1.0 Credit** **Grades 9th 12th**

This course is designed to provide students with the fundamental concepts, principles, skills and attitudes common to the fields of accounting including the nature of the accounting cycle, the control of cash flow, recording transactions, and preparing payroll. Class work will be designed around project based learning, especially the simulation of businesses.

ACCOUNTING II

BE102YTDGE **1.0 Credit** **Grades 10th 12th**

This course is designed to provide students with the fundamental concepts, principles, skills and attitudes common to the fields of accounting including calculating business ratios, tax accounting, business profits and losses, and managerial accounting. Class work will be designed around project based learning, especially the simulation of businesses.

PERSONAL FINANCE

BE111YTDGE 1.0 Credit Grades 10th 12th

This course is designed to provide students with the fundamental concepts, principles, skills to successfully manage one's finances. Topics include savings, banking, taxes, credit, and investments. Students will build a model investment portfolio and test various investment strategies including log and short-term stock marked investment, mutual funds, and cryptocurrency.

WORLD LANGUAGE

SPANISH 1

WL101YTDGE 1.0 Credit - HUMANITIES Grades 9th 12th

This is an introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish-speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

SPANISH 1 Honors

WL101YTDHO 1.0 Credit - HUMANITIES Grades 9th 12th

Spanish I Honors and Spanish II Honors are the foundational language acquisition courses that prepare students to pursue higher level language studies at the IB, AP and UCONN SPANISH level during the 11th and 12th grades. Spanish I Honors introduces students to the study of the Spanish language and culture. Spanish I Honors covers 2 broad themes consisting of 10 prescribed topics which will enable students to acquire vocabulary and grammar concepts in context. The themes and topics are: The individual and society: personal details, daily routines, relationships, education, food and drink, shopping and physical health. Urban and rural environments: neighborhood, town and services, and weather. Performance tasks are required for each topic demonstrating receptive, productive and interactive skills. Students will be exposed to a variety of authentic texts ranging from written material such as articles, brochures, etc. through oral materials such as films, interviews, etc.

SPANISH 2

WL102YTDGE 1.0 Credit - HUMANITIES Grades 9th 12th

This course is a continuation of Spanish 1 and builds on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a Spanish-speaking country.

SPANISH 2 Honors

WL102YTDHO 1.0 Credit - HUMANITIES Grades 9th 12th

Spanish II Honors continues to develop students' productive, receptive and interactive language skills, and intercultural understanding. Spanish II Honors covers 2 broad themes consisting of 10 prescribed topics which will enable students to continue to acquire vocabulary and grammar concepts in context. The themes and topics are: Leisure and work: employment, entertainment, holiday celebrations, media, sports, technology and transportation. Urban and rural environments: Physical geography, environmental concerns, global issues performance tasks are required for each topic demonstrating receptive, productive and interactive skills. The capstone assignment for this course is a 200-300 word written assignment demonstrating receptive and productive skill, intercultural understanding and reflection based on one of the prescribed topics studied during the year. Students will be exposed to a variety of authentic texts ranging from written material such as articles, brochures, etc. through oral materials such as films, interviews, etc.

SPANISH 3

WL103YTDGE 1.0 Credit - HUMANITIES Grades 10th-12th

This course is a continuation of Spanish 2 and increases the student's knowledge of Spanish culture throughout the world. Students will understand more complex syntax in reading and writing in Spanish. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills.

SPANISH 4

WL104YTDGE 1.0 Credit - HUMANITIES Grades 11th 12th

This is a rigorous course designed to provide students the opportunity to achieve Spanish proficiency orally, reading and writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures. The goal of this course is to prepare students for proficiency of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills.

SPANISH 5 – AP

WL105YTDAP 1.0 Credit - HUMANITIES Grades 11th - 12th

This is a college-level course designed to provide students the opportunity to achieve Spanish proficiency orally, reading and writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures. The goal of this course is to prepare students to achieve proficiency of native Spanish language speakers and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. It is expected that students will take the A.P. exam in May, which may lead to college credit.

SPANISH – UCONN ECE

WL121YTDCL 1.0 Credit - HUMANITIES Grade 12th

UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while 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. UConn ECE students must successfully complete the course with a grade of "C" or above in order to receive University credit. College credits are transferable to many colleges and universities.

SPANISH 6 – AP

WL106YTDAP 1.0 Credit - HUMANITIES Grades 10th - 12th

This college-level course is designed to provide students with an intellectual challenge through the advanced study of literature and language of the Hispanic world. This course requires students to read critically and discuss in depth authentic and original texts. Students must have passed A.P. Spanish 5 and have completed rigorous studies comparable in content and difficulty to a fullyear course in Spanish literature at the third-year college level.

SPANISH FOR SPANISH SPEAKERS 1

WL111YTDGE 1.0 Credit – HUMANITIES Grades 9th -12th

This course is designed to meet the needs of students of Spanish-American heritage who were born in the United States or who came to the United States at an early age and possess little or no proficiency in reading and writing in the Spanish language. The goal of the course is to study the correct oral and written Spanish. Students are also given a general perspective of geography and Hispanic culture through selected readings from Spanish and Spanish-American literary works.

SPANISH FOR SPANISH SPEAKERS 2

WL112YTDGE **1.0 Credit - HUMANITIES** **Grades 9th - 12th**

This course is a continuation of Spanish for Spanish Speakers 1 and builds on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal of this course is prepare students for advanced study of the language and give them practical skills of Spanish and Spanish-American literature, culture, history, and geography.

SPANISH FOR SPANISH SPEAKERS 3

WL113YTDGE **1.0 Credit - HUMANITIES** **Grades 10th - 12th**

This course is a continuation of Spanish for Spanish Speakers 2 and builds on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students develop proficient skills to communicate ideas through oral, listening, reading and writing activities in Spanish. The goal of this course is prepare students for proficiency of Spanish and Spanish- American literature, culture, history, and geography.

Note: Students who are proficient in written and spoken Spanish may be placed in Spanish 3 or Spanish 4 with the written approval of the Bilingual coordinator after consultation with the director.

VISUAL ARTS

CERAMICS 1

FA331YTDGE **1.0 Credit** **Grades 9th -12th**

This course explores the uses of clay as a creative medium. Emphasis is placed on construction technique, the ceramic process and the elements and principles of design as related to clay. In addition, students are introduced to the potter's wheel and discover the role of ceramic art in various cultures and historical periods.

CERAMICS 2

FA332YTDGE **1.0 Credit** **Grades 10th - 12th**

This course is a continuation of clay exploration initiated in Ceramics 1. Emphasis is placed on developing advanced technical skills. Students develop their individual problem-solving skills and continue their exploration of clay in the cultural environment.
Prerequisite: Ceramics 1

3D ART AND DESIGN AP

FA316YTDAP **1.0 Credit** **Grades 11th - 12th**

AP 3D Art and Design: is an introductory college-level three-dimensional design course. Students refine and apply skills and ideas they develop throughout the course to produce two-dimensional art and design. Emphasis is placed on developing advanced technical skills in media and techniques. Students will create a portfolio and will develop a focused body of work to develop, practice and apply these skills in a variety of contexts

INTRODUCTION TO STUDIO ART

FA310STDGE **0.5 Credit** **Grades 9th - 10th**

This course is for students who may be interested in the artist's processes of creating art and possibly entering a career pathway in the arts. It is an introduction to the elements of art such as Line, Value, Color, Space, Shape and Texture. In addition to this, the student will gain knowledge in art history. The ability to discuss artwork in an educated manner will also be taught during this course. Upon the successful completion of 27 this course, students will be able to create hands-on projects in order to understand the sensory, formal, technical, and expressive qualities of the arts and identify the processes, techniques, and tools required to produce visual art.

STUDIO ARTS 1

FA311YTDGE **1.0 Credit** **Grades 9th -12th**

This course is an overview of the scope and sequence of the visual arts. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge. The acquisition of the analytical and problem-solving skills needed to create and appreciate art will be stressed.

STUDIO ARTS 2

FA312YTDGE **1.0 Credit** **Grades 10th -12th**

This is a continuation of the study of the topics listed in Studio Arts 1. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge. The acquisition of the analytical and problem-solving skills needed to create and appreciate fine art will be stressed. **Prerequisite**: Studio Arts 1

2D ART AND DESIGN AP

FA315YTDAP **1.0 Credit** **Grades 11th - 12th**

AP 2-D Art and Design: is an introductory college-level two-dimensional design course. Students refine and apply skills and ideas they develop throughout the course to produce two-dimensional art and design. Emphasis is placed on developing advanced technical skills in media and techniques. Students will create a portfolio and will develop a focused body of work to develop, practice and apply these skills in a variety of contexts

FAMILY/CONSUMER SCIENCES

CHILD DEVELOPMENT

FS302YTDGE **1 Credit** **Grades 9th -12th**

Child Development students study the physical, social, emotional, and intellectual growth of a child from prenatal development to adolescence. Students develop a foundational understanding of the way the mind learns and the impact of social, environmental, and genetic factors on the individual. Students will learn from scientifically based research and direct observation of developing children

EARLY CHILDHOOD EDUCATION

FS301YTDGE **1 Credit** **Grades 9th -12th**

Early Childhood Education students first learn the rules, regulations, and code of ethics of preschool teachers as a prerequisite of working directly with children. Students develop the skills and competencies to become effective early childhood educators. Coursework is structured as project based learning of designing and implementing lessons for young children

BILINGUAL SCIENCE

PHYSICAL SCIENCE - BILINGUAL

SC101YBLGE 1.0 Credit - STEM Grade 9th

Este curso es un año completo, donde se introducen los principios básicos y la aplicación de los estados de la materia, sus propiedades, sus relaciones, interelaciones, se cubren ciertos temas de química. Se introducen los principios de las leyes de movimiento, los principios básicos de ciencias relacionadas con física. Se incluyen los temas de trabajo y energía, maquínas simples, luz y sonido, astronomía, y el proceso y la estructura del planeta Tierra. Este curso tiene laboratorios relacionados con el tema.

(This is a full year course introducing the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.)

BIOLOGY - BILINGUAL

SC110YBLGE 1.0 Credit - STEM Grade 10th

El estudio de los seres vivos y sus procesos. Los estudiantes desarrollaran la apreciación hacia los organismos vivos en el mundo del cual ellos forman parte. En este curso se incluyen conceptos básicos de botánica, zoología, ecología, genética, y herencia, microbiología, y las funciones de la célula. Este curso es requisito de graduación. Este curso tiene laboratorios relacionados con el tema.

(This is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. This course is required for all Grade 10 students. There will be one lab period per week.)

CHEMISTRY/LAB - BILINGUAL

SC201YBLGE 1.0 Credit - STEM Grade 11th

Este curso esta diseñado en proveer a los estudiantes con el conocimiento básico y fundamental de las leyes y conceptos de los cambios químicos en nuestro mundo. Aquí se enfoca en las reacciones químicos, y los conceptos básicos que se aplicaran a las mismas, se enfoca en las estructuras moleculares y átomica. Este curso tiene laboratorios relacionados con el tema. Prerequisito: Algebra 1.

(This is a full year course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course stresses chemical reactions, their occurrences, and the energy transfers associated with these reactions. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

***Prerequisite**:* **Must pass one tier I science and one year of Algebra I**

BILINGUAL SOCIAL STUDIES

WORLD CIVILIZATION - BILINGUAL

SS101YBLGE 1.0 Credit - HUMANITIES Grade 9th

En este curso se provee un recuento del principio de las diferentes civilizaciones hasta el tiempo medieval. Se le da un enfasis particular a las civilizaciones en Asia, Africa, Europa, y América Latina. Se incluyen los períodos de renacimiento hasta el siglo XX. Poniendole un enfasis al imperialismo y los problemas y conflictos que surgen en el mundo.

(This course explores the spectrum of World History from Neolithic times through World War I. Assured experiences focus on the development of critical thinking skills, historical habits of mind, historical writing and reading historical texts.)

US HISTORY - BILINGUAL

SS301YBLGE 1.0 Credit - HUMANITIES Grade 11th

Este curso esta diseñado para preparar al estudiante de undécimo grado para adquirir los conocimientos requeridos por el estado y la nación sobre la historia de los Estados Unidos. El contenido de este curso es muy riguroso comienza desde las primeras colonias en Jamestown hasta la administración de Bush. Los estudiantes hará proyectos de investigación donde tendrán que defender sus puntos de vista por escrito.

(This course focuses on the development of America as a modern industrial nation and as a global power. Topics cover events from
1865 to the present. Students are guided in conducting historical research and in developing and defending historical interpretation.)

CIVICS - BILINGUAL

SS201SBLGE 0.5 Credit - HUMANITIES Grade 10th

Este curso de medio semestre es mandatorio para los estudiantes de décimo año donde se les enseña apreciar la forma del gobierno Americano; donde examirán la vida cívica, política, la forma de gobierno, y los fundamentos del sístema politico. Los estudiantes utilizarán métodos históricos, sus destrezas de investigación para evaluar el desempeño del gobierno Americano y las relaciones con los ciudadanos. Las destrezas de investigación serán enfatizadas para poder ayudar a crear un ciudadano responsible y bien informado.

(This is a half-year course that provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized)

LATIN AMERICAN STUDIES - BILINGUAL

SS424SBLGE 0.5 Credit - HUMANITIES Grade 10th

Este curso de medio semestre es mandatorio para los estudiantes de décimo año donde se les enseña apreciar la forma del gobierno Americano; donde examirán la vida cívica, política, la forma de gobierno, y los fundamentos del sístema politico. Los estudiantes utilizarán métodos históricos, sus destrezas de investigación para evaluar el desempeño del gobierno Americano y las relaciones con los ciudadanos. Las destrezas de investigación serán enfatizadas para poder ayudar a crear un ciudadano responsible y bien informado.

(This is a half-year course that traces the history of Latin America from its origins and includes a survey of the economic, political, and social structures of modern Latin America. Regional and global issues will be examined through the study of Brazil, Cuba, Nicaragua, and other Latin American nations.)

BILINGUAL MATHEMATICS

ALGEBRA 1 - BILINGUAL

MA101YBLGE 1.0 Credit - STEM Grade 9th

En este curso harán las conecciones entre algebra, geométria, probabilidades y estadisticas. También envolvera la aplicación de las reglas de algebra; resolviendo diferentes tipos de ecuaciones con gráficas, aplicaran las leyes de exponentes y se enfatizará en problemas verbales.
Prerequisto: Los resultados del CMT y recomendación del maestro.

(This course involves applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents and performing operations with polynomials. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections and communicating mathematically.)

GEOMETRY - BILINGUAL

MA201YBLGE 1.0 Credit - STEM Grade 10th

Incluye los conceptos de figuras geométricas, ángulos, polígonos, cuadrilateros especiales, diferente tipos de triángulos, círculos, área y volumen. Se enfocará especialmente en resolver problemas verbales utilizando las calculadoras gráficas y computadoras.
Prerequisito: Algebra 1

(This course includes the concepts of geometric figures, parallelism, congruency, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and computer software; mathematical connections; critical thinking skills; reasoning; and communicating mathematically. Hands-on activities will also be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts.
***Prerequisite**:* **Algebra I**

ALGEBRA 2 - BILINGUAL

MA202YBLGE 1.0 Credit - STEM Grade 11th

En este curso se destacará el desarrollo de las destrezas aprendidas en Algebra 1 y Geometría. Se estudiaran con más detalle; las ecuaciones cuadráticas, las relaciones entre los diferentes tipos de funciones, raíces cuadradas, números irracionales, teoremas binomiales, y mátrices. Se enfatizará en resolver problemas verbales utilizando calculadoras, razonamiento y actividades en computadora. **Prerequisite: Algebra 1 and Geometry.**

(This course seeks to develop a higher degree of skill and accuracy in algebraic techniques and understanding of the structure of mathematical systems. Topics include a review and an extension of many concepts developed in Algebra 1, such as solving and graphing linear and quadratic equations. Other topics incorporated in this course include: solving and graphing exponential, logarithmic and rational functions and writing and identifying properties of conic sections. Emphasis is placed on problem solving using graphing calculator and computer activities, mathematical reasoning and connections. ***Prerequisites**: **Algebra I and Geometry**.)*

ESOL

ESOL BEGINNER (Parts 1 & 2)

EN010YBLGE EN008YBLGE 2.0 Credits Grades 9th - 12th

This course is for students who are in the beginning stage of English Language acquisition. Students will focus on developing Basic English vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will begin to use English in both social and academic settings and in culturally appropriate ways. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a double period daily and awards twenty points of credit in English towards graduation. The curriculum will align to English 9 and there will be staff collaboration.

ESOL INTERMEDIATE (Parts 1 & 2)

EN011YBLGE EN009YBLGE 2.0 Credits Grades 9th - 12th

This course is for students in the intermediate stage of English Language acquisition. Students will focus on developing contentbased academic English language skills through vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will be able to use English in both social and academic settings and in culturally appropriate ways. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a double period daily and awards twenty points of credit in English towards graduation. The curriculum will align to English 10 and there will be staff collaboration.

ESOL ADVANCED

EN012YBLGE 1.0 Credit Grades 9th - 12th

This course is for students in the advanced stage of English Language acquisition. Students will focus on developing proficient content-based academic English language skills through critical speaking, reading, writing, and listening skills. By developing these skills, students will be able to fluently use English in academic settings. Students will be placed in this program according to their Proficiency level in English. This class meets for a single period daily and awards ten points of credit in English towards graduation.

ESOL-LTSS (LANGUAGE TRANSITION SUPPORT SERVICES)

EN013YBLGE 1.0 Credit Grades 9th - 12th

This course is for students who have completed Beginning, Intermediate, and Advanced ESOL yet require additional English Language instructional support. Students will receive Sheltered English instructional strategies to address all academic content area concepts. By developing these skills, students will use effective academic strategies in English content area courses to achieve success. This class meets for a single period daily and awards ten points of credit in English towards graduation.

ADDITIONAL COURSES BY ARRANGEMENT

COMMUNITY SERVICE

AD100STDGE 0.5 Credit Grades 11th - 12th

This course is designed to encourage students to become contributing community members who recognize the importance of voluntary activity to help other members of the community. Credit may be earned only upon successful completion of 50 hours of unpaid, voluntary work in not-for-profit companies or governmental agencies, and 10 hours of classroom instruction.

SENIOR CAPSTONE

EN431YTDGE 1.0 Credit Grade 12th

The Senior Capstone Experience/Senior Project involves student selected exploration of a topic which results in a project and presentation. This project moves students away from departmentalized learning toward a more interdisciplinary approach. This approach is one which allows students to use a variety of skills in the areas of writing, researching and documentation, and speaking. Upon completion, students will have learned more about their topics, their community, and most importantly about themselves.

SUCCESS ACADEMY

AD003YPLGE **No Credit** **Grade 12th**

The Success Academy provides an opportunity for students to get back on a successful track towards graduation. While enrolled in the Success Academy students will receive individualized curricula designed to meet the academic needs for each student. Through the use of technology students will be able to work at their own pace at school and at home with the support and guidance of a classroom teacher and pupil support staff member.
This virtual learning tool will allows students to recover lost credit and make progress towards graduation. Regular communication will take place between staff and parents regarding the progress of the student.

HCC FRESHMAN SEMINAR

ID501SDECL **0.5 Credit** **Grade 12th**

Freshman Seminar introduces students to diverse academic content, emphasizing the acquisition and application of learning strategies in preparation for rigorous college study. The content is designed to prepare students to develop their own individual, academic, and career success through self-evaluation, application of specific strategies, discussion, and classroom exercises and assignments. Students earn 3 Credits through Housatonic Community College.

COLLEGE AND CAREER READINESS

BE207STDGE **0.5 Credit** **Grade 12th**

This course is designed to increase post-secondary awareness and preparedness for 11th grade students through an in-depth focus on foundational college-skills including test-taking strategies, essay writing, note-taking strategies, research skills, college knowledge, and college writing. Preparation for the SAT will also be a major component of the course. A guidance counselor will also work closely with the teacher to assist the students in improving college readiness