

**DRAFT**

Norwalk Public Schools

# Program of Studies

**2021 – 2022**

Brien McMahon High School

Center for Global Studies

Norwalk High School

P-TECH Norwalk



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### **Vision Statement of Norwalk Public Schools**

Norwalk is the most successful City school system in Connecticut. Norwalk students will exceed State average achievement while high-need students have the smallest achievement gap. Student needs and interests are met through a wide range of school and program choices that promote diversity and broaden achievement. All students are taught by exemplary educators in nurturing, safe, and attractive schools. Students read on grade level by the end of grade three, leave eighth grade equipped to do rigorous high school work, and graduate from high school ready for college.

### **Goals of the Norwalk Public Schools**

- Close the gaps between Norwalk student achievement and State average student achievement in Reading (ELA), Math, Science, and the graduation rate (4 and 5 years) during the life of the Strategic Operating Plan.
- Reduce the achievement gap of Norwalk's high-need students – Special Education, Multilingual Learners, and low-income students - relative to high-need students in the State. Norwalk will have the smallest achievement gap of any City in the State.
- Create more educationally robust parental choices that meet diverse student needs and interests.
- Develop exemplary teachers and school leaders; fill the majority of school and district leadership positions through succession planning and development of staff within the district.
- Ensure safe and attractive schools that support educational programs of the Plan and a nurturing, inclusive learning environment with positive behavior interventions and supports at every school.
- Develop external partnerships and district operating systems necessary to achieve equity and support the District's strategic priorities in the most cost-effective manner.

### **Wellness**

The Norwalk Public Schools recommends that students give strong consideration in taking a well-rounded and holistic course of study keeping in mind the importance of one's social-emotional well-being. School counselors and teachers assist students and families in the subject selection process and postsecondary planning.

## Course Selection Process

The course selection process is a significant component of the school-home partnership and while course selection is the primary responsibility of the student and his or her parents/guardians, there will be numerous opportunities to consult with, make use of the broad experience and professional background of our faculty, and school counseling staff.

Students have the opportunity to explore the diverse course offerings through our **Program of Studies**, which will enable them to be best prepared for college or employment upon completion of their senior year.

Prerequisite work, feedback, and recommendations are always considered in supporting course selection to maximize our students' learning goals. Below, is a suggested timeline that high schools and middle school will follow while completing this exciting planning phase. Please check with your own school for specific dates.

- **Program of Studies Booklet Released – February-** Students and parents have an opportunity to review course offerings and prerequisites and visit high school for evening information sessions.
- **Middle School Visits- February/ March**
- **Teacher Recommendation – Late February/Early March**
- Recommendations are based on current performance.
- Teachers confer with students during class and input their recommendations into Power School for the upcoming year.
- **Student Course Request Window – March** Students will submit course requests through the Power School Portal.
- **Individual School Counselor Meetings – February/March** Students will have scheduled meetings with their school counselors to review course requests for all core academic and elective courses.
- **Scheduling Process- April/May**
- **Counselors will finalize course requests** in April. Parents can view course requests through the Power School Portal.
- Inquiries from students and parents regarding course selections can be directed via email or phone calls to the classroom teacher, department chair, vice principal or school counselor by email.
- **Placement and Prerequisites**
  - a. Prerequisites are indicated by department and/or course where necessary.
  - b. Placement into grade nine academic courses is based on criteria published on the Norwalk Public Schools website, under the Teaching and Learning tab.

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# Norwalk Public School's High Schools:

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***Brien McMahon High School***

***Norwalk High School***

***Center for Global Studies***

***P-TECH Norwalk***

## CHOICES WITH IN SCHOOLS

Norwalk has two comprehensive and two specialized high schools. Each of the comprehensive high schools has academies with in the school. Each academy is a smaller learning community within a school with multiple pathways within it. These academies have cohorts of students that travel together in a special sequence of courses and share a group of teachers. The academies may include integrated curriculum including counseling, partnerships with an industry and secondary education, as well as an advisory group consisting of various stakeholders to guide the overall program.

Each specialized high school and academy is open to a specific number of students each year. Students seeking enrollment in a specialized high school or academy outside of their home district need to apply during the regular course selection process – slots are limited. These continue to be developed as the district grows and establishes new partnerships. As a result, students and families are presented with the opportunity for choices of programs that promote diversity and will broaden achievement.

**Students must submit an application by the published deadline to be eligible for the following Schools and Academies.**

<p><b>Center for Global Studies Magnet</b>  <a href="https://cgs.norwalkps.org/">https://cgs.norwalkps.org/</a></p> <p><b>P-TECH Norwalk Magnet</b>  <a href="https://ptechnorwalk.com/">https://ptechnorwalk.com/</a></p>	<p><b>Medical Healthcare (BMHS Academy)</b>  <a href="https://sites.google.com/norwalkps.org/bmhshealthcare/application?authuser=0">https://sites.google.com/norwalkps.org/bmhshealthcare/application?authuser=0</a></p> <p><b>Marine Science (BMHS Academy)</b>  <a href="https://docs.google.com/forms/d/e/1FAIpQLSeqC6Q_FtgYscRswaaHqQKN-6Q_P4nRNp7TyUR2Ti46DZCbQ/viewform">https://docs.google.com/forms/d/e/1FAIpQLSeqC6Q_FtgYscRswaaHqQKN-6Q_P4nRNp7TyUR2Ti46DZCbQ/viewform</a></p>	<p><b>DMCA (NHS)</b>  <a href="https://nhs.norwalkps.org/cms/One.aspx?portalId=72147&amp;pageId=31543511">https://nhs.norwalkps.org/cms/One.aspx?portalId=72147&amp;pageId=31543511</a></p> <p><b>International Baccalaureate 11 &amp;12 (BMHS)</b>  <a href="https://bmhs.norwalkps.org/our_school/i_b_diploma_program_application_for_n_h_s_students">https://bmhs.norwalkps.org/our_school/i_b_diploma_program_application_for_n_h_s_students</a></p>
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## COLLEGE EXPERIENCE COURSEWORK

Advanced Placement (AP), ECE UCONN, International Baccalaureate Programs (IB), Project Lead the Way (PLTW), P-Tech  
 The courses listed are **some** of the rigorous academic classes available to students who are interested in the opportunity to pursue challenging college-level work in high school. These courses offer exciting and stimulating course work through a college experience while at the four Norwalk Public High Schools. Through these college-level courses, students can earn college credit and/or advanced standing while also distinguishing themselves in the college admission process. The courses can help students acquire the skills and habits necessary to be successful in post-secondary education.

<p><b>ENGLISH</b>                  AP Lang &amp; Comp                  AP Literature &amp; Composition                  ECE Language and Comp</p> <p><b>SOCIAL STUDIES</b>                  AP Comparative Politics                  AP Economics                  AP European History                  AP Psychology                  AP US Government                  AP US History, ECE</p>	<p><b>MATH</b>                  AP Calculus AB                  AP Calculus BC                  AP Statistics                  AP Computer Science A</p> <p><b>SCIENCE</b>                  AP Biology, ECE                  AP Chemistry, ECE                  AP Environmental Science                  AP Physics I &amp; II , ECE</p>	<p><b>WORLD LANGUAGE</b>                  AP Italian                  AP Latin                  AP French IB and ECE                  AP Spanish IB and ECE</p> <p><b>ELECTIVES</b>                  AP Art History                  AP Computer Science Principals                  AP Music Theory                  AP Studio Art 2D, 3D and Drawing                  UB ECE Honors Accounting                  UB ECE Entrepreneurship</p>	<p><b>PLTW</b>                  Honors Computer Science Essentials                  Honors Computer Science Principal                  Honors Intro to Engineering Design                  Honors Principals of Engineering                  Honors Digital Electronics                  Honors Research Methods                  Honors Biotechnical Engineering                  Honors Civil Engineering &amp; Architecture                  Honors Environmental Sustainability                  Honors Human Body Systems                  Honors Medical Interventions                  Honors Biomedical Innovations</p>
<p><b>MHA (BMHS)</b>                  UCONN Medical Terminology                  UCONN Biotechnology                  Honors Principals of Biomedical Science                  Honors Human Body Systems                  Honors Medical Interventions                  Honors Biomedical Innovations                  EMT Certification</p>	<p><b>IB (BMHS)</b>                  IB Literature and Language                  IB Business Management                  IB Environmental Science                  IB Economics                  IB Global Politics                  IB History                  IB Biology                  IB Sports ,Exercise and Health Science                  IB Physics                  IB Marine Science</p>	<p><b>IB (BMHS)</b>                  IB Math Analysis and Approach                  IB Math Applications and Interpretations                  IB Music                  IB Film                  IB Visual Arts                  IB French                  IB Italian                  IB Spanish</p>	<p><b>PTECH</b>                  Web Development                  Intro to Programming                  Object Oriented Programming                  Database Development I                  Operating Systems                  XML for WWW                  Intro to Engineering                  Database Development II                  Mobile Devices I                  Mobile Devices II</p>

**Norwalk Public Schools  
Graduation Requirements and  
Academic Policies  
For High School Students  
[BOE Policy 6146(b)]**

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## **CREDIT REQUIREMENTS FOR GRADUATION**

Norwalk Public Schools requires that students fulfill the following requirements in order to graduate. Students must complete credit requirements.

### **Class of 2021 and 2022 (25-credit requirement)**

#### **Humanities (English, Social Studies, Fine Arts, World Language) 11.0 Total**

- 4.0 English
- 1.5 Social Studies (1.0 World History recommended)
- 1.0 US History
- 0.5 Civics (or American Government or Constitution)
- 1.0 Fine Arts (Art, Music, Theatre, Dance)
- 3.0 World Language

#### **STEM (Science, Technology, Engineering, Math) 9.0 Total**

- 4.0 Math (may include Algebra 1, Geometry, Algebra 2, Statistics, or other math courses)
- 1.0 Biology/Life Science (lab)
- 1.0 Chemistry/Physical Science/Earth Science (lab)
- 1.0 Other Science
- 2.0 STEM Related Course (including 0.5 Digital Literacy Requirement)

#### **Physical Education and Wellness; Health and Safety 2.0 Total**

- 1.0 Physical Education
- 1.0 Health and Safety

#### **Pathways Related Courses 3.0 Total**

- 3.0 Pathway Related Courses

### **25.0 Total Credits Required for Graduation [No Capstone Experience Required]**

### **Class of 2023 and Beyond (26-credit requirement)**

Same basic requirements and 1.0 credit is added to fulfill the **Capstone Requirement** (mastery-based diploma assessment).

- + 1.0 Capstone Experience

### **26.0 Total Credits Required for Graduation**

**Digital Literacy is the ability to find, evaluate, utilize, share, and create content using information technologies and the internet.** \*Requirement: Students must complete at least 0.5 credit in one of the following courses to demonstrate proficiency in Digital Literacy prior to graduation.

**Business:** Computer Applications, Web Page Design, Advanced Computer Applications, Computer Construction and Repair, CISCO Networking 1, Honors CISCO Networking 2, Honors Computer Science Essentials (PLTW), Honors Computer Science Principles (PLTW), Video Game Design, Honors Accounting 2.

**Mathematics:** Computer Science 1, Computer Science 2, AP Computer Science Principles, AP Computer Science A;

**Engineering (Science):** All Project Lead the Way (PLTW) Courses *not including those in the MHA*; or another approved course.

## CREDIT SYSTEM

All subjects at the high school level are assigned units of credit values based on the **Carnegie Unit System**. The number of class sessions and the amount of preparation necessary to achieve a satisfactory standard of performance determine these values. They are equivalent to those assigned by other secondary schools. Every course taken in grades 9, 10, 11, and 12 becomes part of the student's official high school record. *This record of credits and grades earned determines a student's average, rank in class, and qualifications for promotion and graduation.*

Starting with the Class of 2020, students successfully completing Algebra 1, Geometry and/or World Language in grade 8, will count towards the high school graduation requirement. However, courses completed in middle school are not included in the high school cumulative grade point average.

## GRADING PROCEDURES

This chart shows the letter grades and the how grade point averages (GPA) are calculated for academic performance in Advanced Placement, IB, and honors classes.

Grade	Value	Unit Weight	Honors	AP/IB
A	(93-100)	4.00	4.50	5.00
A-	(90-92)	3.70	4.20	4.70
B+	(87-89)	3.30	3.80	4.30
B	(83-86)	3.00	3.50	4.00
B-	(80-82)	2.70	3.20	3.70
C+	(77-79)	2.30	2.80	3.30
C	(73-76)	2.00	2.50	3.00
C-	(70-72)	1.70	2.20	2.70
D+	(67-69)	1.30	1.80	2.30
D	(63-66)	1.00	1.50	2.00
D-	(60-62)	0.70	1.20	1.70
F	(0-59)	0.00	0.00	0.00

Example:

Course	Grade	GPA
EN0036GAE5 English 3	B+	3.30
EN0039HAE5 Honors English 3	B+	3.80
EN0040ACE5 AP/IB English Language	B+	4.30

## ATTENDANCE POLICY AND DENIAL OF CREDIT

In high school, a student will lose credit on the 13<sup>th</sup> absence in a **full-year** course, 7<sup>th</sup> absence in a **semester-length** course, and 4<sup>th</sup> absence in a **quarter-length** course. Students with absences (unexcused or excused) totaling 13 in a full-year course, 7 in a semester course, and 4 in a quarter-length course may be denied credit. Parents are notified in writing of the denial of credit, and students have a designated amount of time from the date of the letter to appeal to the attendance committee for restoration of credit. Students are expected to maintain their current academic progress and attend class during the appeals process. **A student that does not appeal for restoration or whose appeal is denied will still receive the appropriate course grade, which will be utilized for honor roll calculation, but will not receive credit toward graduation.** Depending on the course and the student's cumulative credit count, the course may need to be repeated.

Students in grade 12 and any other student eligible for graduation that school year will have their attendance reviewed at the end of the first semester in all courses. If the student has exceeded the allowed number of absences in any of their classes, they will be denied credit. This can include, but is not limited to, denying 0.5 credits in a 1.0 credit course. The purpose is to offer students the opportunity to recover the required credit prior to graduation.

The complete attendance policy is in the Guide for Students and Families or online through the schools' websites.



## **TESTING INFORMATION**

**Northwest Evaluation Association (NWEA) or Measures of Academic Progress (MAP):** This formative assessment is given to grade 9 and 10 students to determine their proficiency in reading, writing, and mathematics. It is an adaptive, computer-based assessment that is proctored in the students' classes. These scores are used to determine instruction, specifically acceleration and remediation

**Scholastic Aptitude Test (SAT) for Grade 11 Students:** The Connecticut State Board of Education adopted the SAT as the statewide assessment for grade 11. The SAT is administered during the school day to all grade 11 students in all public schools in Connecticut in the spring.

### **State of Connecticut Suggested Level of Proficiency on SAT**

#### **2018 State of Connecticut SAT Grade 11 Benchmarks**

- Math: 530 out of 800
- Evidence-based Reading and Writing: 480 out of 800

**Preliminary Scholastic Aptitude Test (PSAT)/National Merit Scholarship Qualifying Test (NMSQT):** This test is administered in the fall to help students prepare for the SAT and is the means for juniors to enter a competition for the National Merit Scholarships and/or the National Achievement Scholarships.

**PSAT 8/9:** This test is administered to all grade 8 and 9 students each fall. It is intended to be used as a baseline of student achievement as they enter high school on topics that matter most to college and career success.

**SAT I Reasoning and SAT II Subject Tests:** These are administered at testing centers throughout the US seven times a year (October, November, December, January, March, May, and June). Students may apply online at [www.collegeboard.com](http://www.collegeboard.com).

**Advanced Placement Tests (AP):** Students are expected to take the AP exam if enrolled in an AP course. Information explaining tests, fees, application dates and more is available online at [www.collegeboard.com](http://www.collegeboard.com).

**International Baccalaureate Tests (IB):** Students are expected to take the IB exam if enrolled in an IB course. Information explaining tests, fees, application dates and more is available online at [www.ibo.org](http://www.ibo.org).

**Language Assessment System (LAS) Links:** English proficiency testing of Multilingual Learners (MLLs) occurs upon registration. The test consists of 4 sections – listening, speaking, reading, and writing. All students designated as MLLs are tested each year on the LAS Links to measure progress towards English language proficiency.

**Connecticut Physical Fitness Assessment (CPFA):** All students must have their CT Physical Fitness Assessment scores reported to the State throughout their High School career. The school is measured by the State according to both participation and passing rates.

**Project Lead the Way Testing (PLTW):** PLTW End-of-Course Assessments. These assessments measure a balance of both subject-matter knowledge and mastery of in-demand, transportable skills, including problem solving, critical and creative thinking, collaboration, communication, and ethical reasoning. Performance on the PLTW Assessment may result in students receiving **dual credit** at various higher education institutions.

## **ABOUT COURSE SELECTION**

During the second semester of each school year, extensive plans and procedures are instituted in preparation for the following year. None is more important than scheduling. It is imperative that both parents and students exercise careful planning prior to making course selections.

School counselors will provide all materials and offer advice prior to the announced deadlines. Please review the Program of Studies carefully and consult with a counselor on questions or concerns in making decisions. When all courses have been selected, the online course request screen must be acknowledged or a paper copy signed by both student and parent must be returned to the counselor. Once submitted, the final requests constitutes the basis for all further planning.

Schedules will only be modified if one of the following occurs:

1. If there is a course conflict or the printed schedule is incorrect.
2. If a schedule is incomplete or there are insufficient credits for graduation.
3. As a result of a course failed in June or successful completion of a course in summer school.

When conflicts arise, students must be prepared to make alternative choices in order to resolve them. Decisions need to be made carefully and thoughtfully.

## **COURSE CHANGES AND THE PERMENANT RECORD**

Course changes are rare and are made only for academic reasons with administrative approval when the struggling student has worked to address the issue with the teacher.

1. An approved change after 10 school days in a semester course will result in a "W" on the student's transcript.  
An approved change or drop after 20 school days in a full-year course will result in a "W" on the student's transcript.
2. Any approved course change or drop after the first quarter of a semester course will be recorded as a "WF" on the student's transcript.  
Any approved course change after the first quarter of a full-year course will be recorded as a "WF" on the student's transcript.
3. When a student transfers to another level (same subject), the current grade transfers with the student. If he or she transfers from an AP or Honors level course, the transferred grade will not be weighted.  
The AP or Honors level course will not be reflected on the transcript.

All credits earned beyond the necessary requirements in each area (Humanities, STEM, PE and Health) count as **Pathway Related Courses**.

**Seniors must take 6.5 credits and must pass a minimum of 5 credits in grade 12 to be eligible for graduation.**

## **NCAA ATHLETES ELIGIBILITY INFORMATION**

If you want to play sports at an NCAA Division I or II school, start by registering for a Certification Account with the NCAA Eligibility Center at [eligibilitycenter.org](http://eligibilitycenter.org). If you want to play Division III sports or you aren't sure where you want to compete, start by creating a Profile Page at [eligibilitycenter.org](http://eligibilitycenter.org).

**ACADEMIC REQUIREMENTS** To play sports at a Division I or II school, you must graduate from high school, complete 16 NCAA-approved core courses, earn a minimum GPA and earn an ACT or SAT score that matches your core-course GPA.

**CORE COURSES** Only courses that appear on your high school's list of NCAA core courses will count toward the 16 core-course requirement; visit [www.eligibilitycenter.org/courselist](http://www.eligibilitycenter.org/courselist) for a full list of your high school's approved core courses.

**Record of Academic Program for the Class of 2020- 2022 (25 Credits) 2023 (26 Credits)**

Student Name \_\_\_\_\_ Email: \_\_\_\_\_ Class of \_\_\_\_\_

COURSE CREDIT REQUIREMENTS	MS	Grade 9	Grade 10	Grade 11	Grade 12	Minimum Credits
<b>Humanities 11 Credits</b>						
English 1:						1
English 2:						1
English 3:						1
English 4:						1
Social Studies Related Course:						1
US History						1
Civics						0.5
Social Studies Related Course:						0.5
Fine Arts:						1
World Language:						3
<b>STEM 9 credits</b>						
Math 1:						1
Math 2:						1
Math 3:						1
Math 4:						1
Science (Lab) Biology/Life						1
Science (Lab) Chemistry/Physical Science						1
Science Related Course:						1
STEM Related Courses (including 0.5 of Digital Literacy):						2.0
<b>Physical Education and Health: 2 credits</b>						
Physical Education and Wellness						1
Health and Safety (Health 1 and 2 required)						1
<b>Pathway and Related Courses: 3 credits</b>						
Pathway Related Courses:						
Pathway Related Courses:						
Pathway Related Courses:						
Pathway Related Courses:						
<b>Total Graduation Credits (Classes of 2022)</b>						<b>25</b>
<b>Minimum Credits Suggested Per Grade</b>		<b>7.5</b>	<b>7.5</b>	<b>7</b>	<b>6.5</b>	
<b>Total Required Credits for Promotion</b>		<b>6.0</b>	<b>12.5</b>	<b>18.5</b>	<b>25</b>	
<b>Capstone: (Class of 2023 and Beyond) 1 credit</b>						
<b>Total Graduation Credits (Class of 2023 and Beyond)</b>						<b>26</b>

**Course Offerings**

**Humanities:**

***English***

***Social Studies***

***Fine Arts and Music***

***World Language***

## English

During the four years of high school, students must earn four credits in English. All students must pass the following required courses: **English 1, English 2, English 3, and two core English grade 12 related courses** (that prepare students for a career pathway or Capstone Experience) or **Advanced Placement English** or **IB course** or **World Literature (CGS only)**. \*Subject offerings can also be found within the Multilingual Learner (MLL) section of this book.

**Honors English** courses are available to students in grades 9, 10, and 11 and **Advanced Placement English** is an option for grades 11 and 12. **For these programs, a required reading and writing assignment must be completed during the summer prior to enrollment.** It is the responsibility of the student to obtain the appropriate list from the English department staff.

In addition to the required **English** course, students in all grades may choose from among several English related courses; any special prerequisite is indicated in the course description.

### Guidelines for high school English Departments concerning student enrollment in required courses:

- No student may be simultaneously enrolled in two courses of required English.

### English Requirement Course Sequence

#### BMHS ONLY

9	10	11	12
English 1 Transition English*	English 2 Transition English*	English 3 Transition English*	Senior Core English Courses Transition English*
Honors English 1	Honors English 2	Honors English 3	AP Language & Composition AP Literature & Composition
	AP Language and Composition	IB Language and Literature (Year 1)	IB Language and Literature (Year 2)

#### NHS ONLY

9	10	11	12
English 1 Transition English*	English 2 Transition English*	English 3 Transition English*	Senior Core English Courses Transition English*
Honors English 1	Honors English 2	Honors English 3	AP Language & Composition AP Literature & Composition
		AP Language & Composition AP Literature & Composition UConn ECE Literature & Composition	

\*See notes for Transition English enrollment and MLLs under Multilingual Learners course description

<b>EN0016GAE</b>	<b>English 1</b>	<b>Grade 9</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

This course is an exploration of the reading-writing connection. Students will study a diverse collection of informational and literary texts and will use the writing process and technology to develop writing proficiency. Students will also work on speaking and listening, vocabulary development, comprehension strategies, and logical thinking and study skills. Emphasis will be placed on close reading strategies that develop critical reading and analytical skills development.

<b>EN0019HAE</b>	<b>Honors English 1</b>	<b>Grade 9</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

This accelerated English course will consist of an in-depth examination of both fiction and nonfiction. An emphasis will be placed on the various forms of discourse (e.g., persuasive, expository, narrative, and descriptive). Students will learn the components and skills associated with critical and rhetorical analysis. Multicultural readings will be ‘studied throughout the course to gain a better understanding of author’s voice and choice. This course will provide an intensive educational opportunity for qualified, highly motivated students. Students may be required to complete a summer reading and writing assignment in advance of taking this course. Prerequisite: Eighth-grade teacher recommendation based on student’s interest and motivation.

<b>EN0026GAE</b>	<b>English 2</b>	<b>Grade 10</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

In this course, students will acquire the skills and develop the vocabulary necessary to read the major genres of literature: the novel, short story, drama, poetry, essay, and biography. A combination of nonfiction and fiction works will be used in the course of study. Students will study the various techniques of developing and researching a topic and will write papers and develop multimedia presentations using these skills. Instruction will focus on response writing, persuasive essay, and reflective personal statements. Grammar, research, vocabulary, and oral communication skills will also be emphasized.

<b>EN0029HAE</b>	<b>Honors English 2</b>	<b>Grade 10</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

This accelerated English course will consist of an in-depth analysis of challenging classical and contemporary short stories, drama, novels, poetry, non-fiction, and biographies. Selections will include a diverse set of authors that reflect the multiculturalism found in our society. In addition, the course will stress the writing process and include an emphasis on expository, research and thesis writing. Other activities will include the acquisition of grammatical skills, the development of vocabulary, the application of literary terminology, and the development of oral communication skills. More emphasis will be placed on understanding rhetoric and the appeals. The course will provide an intensive, educational opportunity for qualified, highly-motivated students. Students may be required to complete a summer reading and writing assignment in advance of taking this course. The responsibility for obtaining and completing the assigned summer reading and writing assignments by the specified due dates rests with the student.

<b>EN0036GAE</b>	<b>English 3</b>	<b>Grade 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

Students in this course will read major writers of American Literature from the early colonial period to the present to become aware of their cultural traditions. Through their reading, discussions, vocabulary work, and writing, students will develop an awareness of their place in society and their value as an individual. Students will develop research skills and use the writing process to develop creative, analytical, and persuasive pieces. Informational and literary texts will be analyzed using close reading strategies as preparation for college entrance exams. Focus will also be given to the personal narrative as a way to best prepare students for college essay admission requirements.

<b>EN0039HAE</b>	<b>Honors English 3</b>	<b>Grade 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

Students in this accelerated English course will develop the ability to examine the growth of American Literature from the colonial to the contemporary period. Through a critical analysis of the works of major American writers, students will achieve knowledge of their cultural traditions, an understanding of the development of American literary thought, and an awareness of their place in society. Students will write papers and produce multimedia presentations to increase their skills in the techniques of expository, narrative, and research writing. Work will be collected and maintained in individual portfolios, which will be reviewed periodically. Students do intensive vocabulary study and will make use of literary terminology in their discussions and written work. Informational and literary texts will be analyzed using close reading strategies as preparation for college entrance exams. Focus will also be given to the personal narrative as a way to best prepare students for college essay admission requirements. This course will provide an in-depth, challenging study of American Literature for the qualified, highly-motivated student. Students may be required to complete a summer reading and writing assignment in advance of taking this course. The responsibility for obtaining and completing the assigned summer reading and writing assignments by the specified due date rests with the student.

<b>BMHS ONLY</b>	<b>IB Group 1: Language and Literature</b>	<b>Grade 11 and 12</b>	<b>1 credit per year</b>
<b>EN0051ICEIB</b>	<b>IB Language and Literature Y1 HL</b>		
<b>EN0052ICEIB</b>	<b>IB Language and Literature Y1 SL</b>		
<b>EN0112ICEIB</b>	<b>IB Language and Literature Y2 HL</b>		
<b>EN0113ICEIB</b>	<b>IB Language and Literature Y2 SL</b>		
<b>*[Graduation Requirement: Core English]</b>			

The English Language and Literature course synthesizes the IB mission through the study of the English language and its linguistic structure. Through challenging, active learning, this two-year college-level course develops students' understanding of both oral and written discourse, with a focus on expanding their analytic and composition skills. The course includes a wide range of literature from various global cultures. Through literary criticism and analysis, students will examine conflict and challenges within a multicultural context, providing students an opportunity to broaden their perspective on literature and humanity. In this course, students respond reflectively, speak with empathy, listen actively, and communicate with a heightened global understanding. Ultimately, the activities and tasks will underscore international awareness and develop qualities outlined in the IB learner profile. Coursework is drawn from IB prescribed list.

<b>EN0040ACE</b>	<b>Advanced Placement: Language and Composition</b>	<b>BMHS Grades 10, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>		<b>NHS Grade 11, 12</b>	

Students will be engaged in becoming skilled readers of prose written in a variety of rhetorical styles and in becoming skilled writers who compose for a variety of purposes. Both their reading and their writing should make students aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effectiveness of writing. Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses may require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time.

<b>EN0050ACE</b>	<b>Advanced Placement: Literature and Composition</b>	<b>BMHS Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>		<b>NHS Grade 11, 12</b>	

In this course, students will analyze poetry, drama, prose, fiction, and expository literature, including as a minimum four core and four ancillary grade 12 titles. They will intensively study a representative sampling from various genres and periods. Students will defend their interpretations of literature and share ideas through class discussions, critical writing, and oral presentations. This college-level course of literature and composition is for mature students who have excelled in English. An extensive summer reading assignment must be completed prior to the start of the school year. Students' writing will be maintained in individual writing portfolios. Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses may require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time.

<b>EN0060CC</b>	<b>UConn ECE Literature and Composition</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Core English]</b>			

This course runs concurrently with Advanced Placement Literature and Composition and it is certified with UConn's Early College Experience (ECE) that grants students the opportunity to earn six college credits over the course of the year.

**BMHS ONLY**

- **Adolescent Literature (EN0100GAC)**

Explores the values and influence of stories designed for young people through an exploration of mythology and fairy tales, works by influential children's authors and poets as well as young adult authors.

- **Crime Studies: *Avengers, Detectives, and Vigilantes in Literature* (EN0101GAC)**

Beginning with 19<sup>th</sup> century predecessors, students will cover modern American crime narratives, emphasizing the noir fiction that flourished between the Jazz Age and the Cold War as the true crime novel.

- **Greece to Gotham: *The Evolution of the Hero* (EN0102GAC)**

This course will examine how real life and fictional heroes have evolved over time, beginning in the ancient Greek world and continuing through the modern era. Students will explore how societies define and portray heroes, as well as how they promote cultural values and morals. Students will study a variety of heroes, including mythological heroes, epic heroes, tragic heroes, antiheroes, and superheroes.

- **Public Speaking (EN0093GAC)**

Students will learn how to create and deliver speeches. Students will focus on both verbal and nonverbal communication, interpersonal and intrapersonal skills, and preparation and delivery of various types of speeches.

- **Sports Literature (EN0104GAC)**

Students will reflect on athletes, their lives and stories, and how sports fit into a global society while honing real-life writing skills that reflect pieces read in class.

- **Advanced Creative Writing (EN0062GAC)**

Various writing options include the development of short fiction pieces, memoir, poetry, and drama. Students will develop independence while assuming responsibility for their own writing, use of class time, and helping each other in all stages of the writing process.

- **The Poetry of Music (EN0105GAC)**

This class focuses primarily on students who may have not yet warmed up to poetry but who readily seek contact with music. The lessons on music may serve as a foundation for finding poetic connections to art, land, or other sources of inspiration.

- **The Immigrant Experience (EN0106GAC)**

In relocating from one country to another, newcomers have had to find a way to make a living, in addition to adjusting to an unfamiliar culture and often a new language. Through expressive novels, short stories, poetry, plays, biographies, and memoirs, students will share the immigrant experience with those who have lived it.

- **The Arts through the Decades (EN0107GAC)**

Arts through the Decades intends to study, analyze, and compare the best "throwbacks" from each era from 1940 to the present. In the class, students will use music, movies, and literature to analyze their context and make connections to the time period.

- **Rethinking Gender in Literature (EN0064GAC)**

This literature and writing course takes a historical approach to exploring the evolution of gender relations within American society. Gender and Literature is a focused survey of women's contributions to American letters, undergirded by historical and theoretical works of non-fiction. Core literary texts include novels, poetry, essays, and multimedia. These selections will reflect questions, arguments, and observations brought to light by women's social equality movements from early suffragists up through our present moment in the technological age. Non-fiction selections will provide context, and additional bases for student argumentation. Course content may incorporate readings from adjacent disciplines, such as anthropology, psychology, political science, economics, linguistics, and/or medicine.

**NHS ONLY**

- **Crime Studies: *Avengers, Detectives, and Vigilantes in Literature* (EN0101GAC)**

Beginning with 19<sup>th</sup> century predecessors, students will cover modern American crime narratives, emphasizing the noir fiction that flourished between the Jazz Age and the Cold War as the true crime novel.

- **Dramatic Experience (*Theater Workshop*) (EN0058GAC5)**

This course is designed to allow students the opportunity to experience drama through reading, discussion and dramatic presentation. Significant works, classical to contemporary, will be examined in the context of dramatic structure, theme, and the evolution of theater.

- **Ghosts, Monsters, Mysteries and Madness: *The Stories, Legends, and Obsessions of the Gothic Age* (EN0109GAC)**



This course uses high-interest genre of horror and murder mystery stories to engage investigating the historical background of Gothic Romanticism during the Victorian Era.

- **Greece to Gotham: *The Evolution of the Hero* (EN0102GAC)**

Examine how real life and fictional heroes have evolved over time, beginning in the ancient Greek world and continuing through the modern era. Students will explore how societies define and portray heroes, as well as how they promote cultural values and morals. Students will study a variety of heroes, including mythological heroes, epic heroes, tragic heroes, antiheroes, and superheroes.

- **Public Speaking (EN0093GAC)**

Students will learn how to create and deliver speeches. Students will focus on both verbal and nonverbal communication, interpersonal and intrapersonal skills, and preparation and delivery of various types of speeches.

- **Stories from the Great Beyond: *Modern Science Fiction Journey through Space, Time, and Culture* (EN0111GAC)**

This course will explore the world of modern science fiction and the role it has played as an influence and reflection of the politics and culture of the 20<sup>th</sup> and 21<sup>st</sup> century as well as mankind’s relationship with each other, technology, and the great unknown.

- **Modern Cultural Identity (EN0108GAC)**

Students will be introduced to multicultural literary perspectives and the course will examine the effects of such issues on modern society such as ethnicity in America, the melting pot theory, separatism, cultural pluralism, legal issues, and bilingual education and instruction.

- **Rethinking Gender in Literature (needs a #)**

This literature and writing course takes a historical approach to exploring the evolution of gender relations within American society. Gender and Literature is a focused survey of women’s contributions to American letters, undergirded by historical and theoretical works of non-fiction. Core literary texts include novels, poetry, essays, and multimedia. These selections will reflect questions, arguments, and observations brought to light by women’s social equality movements from early suffragists up through our present moment in the technological age. Non-fiction selections will provide context, and additional bases for student argumentation. Course content may incorporate readings from adjacent disciplines, such as anthropology, psychology, political science, economics, linguistics, and/or medicine.

- **Rockers, Rebels, and Revolutionaries: *The Counter Culture of the 1960s* (EN0110GAC)**

This course uses literary text and multimedia sources to enable students to get a cultural overview of the events that contributed to the social revolution of the 1960s. They will evaluate lyrics, speeches, and news articles that ignited a generation and fueled a revolution.

- **The Poetry of Music (EN0105GAC)**

This class focuses primarily on students who may have not yet warmed up to poetry but who readily seek contact with music. The lessons on music may serve as a foundation for finding poetic connections to art, land, or other sources of inspiration.

EN0013GAE5	Literacy Workshop 1	Grades 9, 10	1 Credit
*[Graduation Requirement: Pathway Related Course]			

These courses are primarily based on *Read 180*, a research-based reading intervention program that focuses on building reading comprehension for students who are reading below proficiency for their grade level. Instruction will be differentiated and tailored to the individual needs of each student. The model includes a blended learning experience with whole and small group instruction, independent reading, and technology-based learning.

EN0017GAE	Transition English	Grade 9, 10, 11, 12	1 Credit
*[Graduation Requirement: Core English]			

This course follows the English 1 curriculum (described below) but is designed for Multilingual Learners (MLLs) at the intermediate to advanced level on English proficiency. English teachers use instructional strategies that are effective with MLLs to prepare students to take an English course the following year with mainstream peers. **Successful completion gives the student one credit in Core English. Notes about Transition English and MLLs:**

1. MLLs should enroll in Transition English after they successfully complete the English Literature course in the MLL course sequence, unless it is recommended by the MLL teacher that the student take English Literature and Transition English concurrently.
2. MLLs in grade 12 enrolled in English Literature must be concurrently enrolled in Transition English.
3. In order to graduate, MLLs must successfully complete one course in the regular English Department (Transition English fulfills this requirement.)

4. After completing Transition English, it is recommended that MLLs enroll in the English course (2, 3, or 4) that is one below their current grade level. (Exception: they should not enroll in English I since the curriculum is equivalent to Transition English.)
5. If an MLL fulfills the 4 credit English requirement before senior year, he or she must continue to enroll in a Core English class

EN0094GAC	<b>Wilderness: Environmental Justice in the 21<sup>st</sup> Century</b>	<b>Grade 9</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This course will be interactive and collaborative with a hands-on approach that will focus on authentic experiences in nature and will provide you with the opportunity for creating, planning, organizing, and fundraising field trips to test your skills. This course will prepare you to be a strong leader with teamwork and communication skills that will not only prepare you for survival in nature, but also how to survive in school and your community. This course will explore the evolving relationship humans have in nature and will focus on environmental justice and ethics in the 21st century.

EN0061GAC	<b>The Graphic Novel</b>	<b>Grades 9, 10</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This course is a combination of independent reading and collaborative learning experiences that explore the comics medium as a mode of modern storytelling. Students will explore various types of graphic texts to acquire, practice and master traditional and new literacies, including visual and critical media literacy. Students will analyze graphic novels as literature, looking at story structure, theme, character development and literary devices. Additionally, students will look at the pop culture phenomenon of graphic novels and the special effects created in graphic art. Students will practice critical thinking and composition skills through reader responses and collaborative presentations.

EN0057GAC	<b>Creative Writing</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

Students will study many aspects of writing technique and will apply these techniques to the following writing options: short stories, poetry, one act plays, T.V. scripts, and children's stories. Students will be encouraged to write for an audience by sharing their work aloud with classmates and by submitting their writing for publication as appropriate. 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders take this course in addition to the required English 2, 3, or 4 as applicable.

EN0058GAC	<b>Dramatic Experience</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway-Related Course]</b>			

Dramatic Experience is designed to allow students the opportunity to experience drama through reading, discussion and dramatic presentation. Significant works, classical to contemporary, will be examined in the context of dramatic structure, theme, and the evolution of theater. Students will explore different acting techniques and styles with an emphasis on developing the actor's instrument (voice and body), ensemble work, improvisation, monologue, acting for the camera, and scene performance. Students will also experience the art of oratory (speech), which includes crafting individual dramatic pieces. This is an ideal opportunity for students to become immersed in the world of the theater and gain an introductory knowledge of dramatic theory. Students will learn how to analyze the subtext of a play and learn the psychological nature of characterization. Each student will develop a performance project to be staged in front of a live audience. This is a unique opportunity for students to apply the acting and oratory techniques learned during this half-year course

EN0098GAC3	<b>The Art of Storytelling through Narrative</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>BMHS ONLY</b>			
<b>*[Graduation Requirement: Pathway Related Course]</b>			

Nowadays students live in a culture that bombards them with media/ their senses are saturated by visual and auditory stimuli. Increasingly, the effort to discern relevant and truthful information from fabrication, and to distinguish depth of argument from shallow emotionalism has become a challenge. Through a variety of mediums such as podcasts, articles, speeches, nonfiction, and fictional literature, this course will expose students to various types of writing, such as argumentative, informative narrative, and analytical arguments. Students will engage in meaningful discourse about the strengths, weaknesses, and types of verbal and written arguments.

<b>EN0071GAE</b>	<b>Journalism 1</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>BMHS ONLY</b>			
<b>NHS JOURNALISM FOUND IN SOCIAL STUDIES SECTION</b>			
<b>*[Graduation Requirement: Pathway Related Course]</b>			

With information increasingly being presented through various political and social lenses, an overwhelming magnitude of instantaneous information, and the almost certain possibility of being constantly connected to the world, parsing the truth from opinions and half-truths is more important than ever. Students will study the function, techniques, and responsibilities of journalism. The course will include class instruction and lab activity. Students will assist with the preparation and publication of the school magazine, school news website, and PrideTime social media accounts. This course is recommended for students whose writing skills are firmly grounded. 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders take this course in addition to the required English 2, 3, or 4, as applicable.

<b>EN0073GAE</b>	<b>Journalism 2</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>BMHS ONLY</b>			
<b>NHS JOURNALISM FOUND IN SOCIAL STUDIES SECTION</b>			
<b>*[Graduation Requirement: Pathway Related Course]</b>			

Students will continue to study the function, techniques, and responsibilities of journalism. The course will include class instruction and lab activity. Students will assist with the preparation and publication of the school magazine, school news website, and PrideTime social media accounts. This course is recommended for students whose writing skills are firmly grounded. -11<sup>th</sup> and 12<sup>th</sup> graders take this course in addition to the required English 3 or 4, as applicable.

<b>EN0074GAE</b>	<b>Honors Journalism 3</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>BMHS ONLY</b>			
<b>NHS JOURNALISM FOUND IN SOCIAL STUDIES SECTION</b>			
<b>*[Graduation Requirement: Pathway Related Course]</b>			

Students will continue to develop their skills as non-fiction writers and with practice assume greater responsibility for the production and publication of the school magazine, school news website, and PrideTime social media accounts. This course will include classroom instruction and lab activities and is recommended for students whose writing skills are firmly grounded. 12<sup>th</sup> graders take this course in addition to the required core English course(s).

<b>AD0010GAC</b>	<b>Freshman Seminar</b>	<b>Grade 9</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>BMHS FOUND IN SOCIAL STUDIES SECTION</b>			
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This interdisciplinary course is designed to introduce freshmen to the expectations and different career pathways of high school. The curriculum will follow the school-wide rubrics, focusing on communication skills, civic responsibility, problem solving, personal development (such as collaboration and self-advocacy), technology skills, and researching skills. This course will incorporate inquiry-based learning and authentic tasks.

<b>EN0075GAC</b>	<b>Psychology in Literature</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<b>BMHS ONLY</b>			
<b>*[Graduation Requirement: Pathway Related Course]</b>			

Students will read and discuss short stories and plays focusing on parents and children, family conflicts, and adult relationships. Observing the tensions and misunderstandings of characters in fiction, students will give their opinions of the personalities and situations presented in the stories. Students will explore and voluntarily share their own beliefs and behaviors. The course appeals to students of all Language Arts ability levels. 11<sup>th</sup> and 12<sup>th</sup> graders take this course in addition to the required English 3 or 4 as applicable.

<b>EN0076GAC</b> *[Graduation Requirement: Pathway Related Course]	<b>Approaches to Film and Media Study</b>	<b>BMHS Grades 10, 11</b> <b>NHS Grades 10, 11, 12</b>	<b>0.5 Credit</b>
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This one-semester English related course teaches students to view, discuss, and write about films critically in order to understand the ways in which films convey meaning, express points of view, influence public opinion, and reflect the time period. Students will learn about the history of film, the basics of film theory, and the critical analysis of film. Although films will be viewed in class, students will be expected to view films at home and in the movies. Genres and movements of film include, but are not limited to, Film Noir, Impressionism, montage, science fiction/fantasy, westerns, Cinema Verite, and silent films. Possible readings include film analyses, directors' notes, texts on which films are based, screenplays, and reviews. Students will use a variety of media to respond to their viewing.

<b>EN0078GAC</b> <b>NHS ONLY</b> *[Graduation Requirement: Pathway Related Course]	<b>Digital Storytelling</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
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Storytelling will be a great option for any student who wants to learn more about the conventions of filmmaking and how to use various forms of technology to tell interesting and compelling stories. The course will introduce elements of storytelling and will encourage creativity and teamwork through a variety of projects such as video narratives, memoirs, poetry, short films, and more.

<b>CM8858GAC</b> <b>NHS ONLY (DMCA)</b> *[Graduation Requirement: Pathway Related Course]	<b>Audio Design and Development</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
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Audio/Sound Design 1 is a hands-on course designed to allow students to create sound for various forms of media as well as providing an opportunity to become proficient in audio production techniques using *ProTools* in conjunction with *Audition*. Students will learn about studio operations, recording principles, mixing, editing and effects processing while becoming proficient in Adobe Audition, an industry standard audio program. The course will provide students with an opportunity to create sound content for a variety of film and television projects as well as the chance to work side by side with industry professionals on radio and podcast projects. There will also be the opportunity to record student produced musical content.

**Prerequisite: Advanced Media Studies**

<b>AR0080GAC</b> *[Graduation Requirement: Pathway Related Course]	<b>SAT Prep (English)</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
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This semester-length (NHS) class is intended to prepare students for the *evidenced-based reading, writing, and math* segments of the SAT. Teachers will provide students with activities in analytical thinking and with the skills and strategies associated with the evidence-based reading and writing section and the math section of the redesigned SAT. Topics covered include developing a study plan, vocabulary, sentence completion strategies, reading comprehension, and essay-writing strategies, as well as time management, scoring procedures, and strategies for managing test anxiety. Course materials may include SAT review materials, current assessment software programs, and previous standardized examinations. This course does not fulfill the graduation credit in English or mathematics.

## Social Studies

The purpose of the Social Studies curriculum is to provide learning programs to prepare our young people to be humane and rational participants in an ever-changing environment. In order to live a successful life in this expanding world, students need to develop a keen understanding of the social, intellectual, political, and economic forces they will face. The scope and sequence of this curriculum will prepare students to achieve these goals and assist in their growth as citizens in a multicultural, global community.

In addition to the required courses, a variety of Pathway Related Courses provided to fulfill student needs and interests. All 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> grade students may complete a summer reading assignment. The summer reading list is available from the school.

\*Subject offerings can also be found within the Multilingual Learner (MLL) section of this book.

9	10	11	12
World History	US History	Civics	Civics
Honors World History	Honors US History AP US History UConn ECE US History (BMHS)	Honors Civics AP Government	Honors Civics AP Government
	AP Psychology AP European History (NHS) AP Economics AP Comparative Politics (NHS) Civics (BMHS) – IB diploma candidates only	AP European History (NHS) AP Economics AP Comparative Politics (NHS) AP Psychology IB History Year 1 (BMHS) IB Global Politics Year 1 (BMHS)	AP European History (NHS) AP Economics AP Comparative Politics (NHS) AP Psychology IB History Year 2 (BMHS) IB Global Politics Year 2 (BMHS)
Pathway Related Courses			
Comparative Religions	Comparative Religions	Comparative Religions	Comparative Religions
Current Issues Freshmen Seminar	Current Issues Social Justice	Current Issues Social Justice	Current Issues Social Justice
	African American Themes 1 (NHS) African American Themes 2 (NHS) Latin American Studies	African American Themes 1 Latin American Studies African American Themes 2	Latin American Studies African American Themes 1 African American Themes 2
	Honors Economics	Honors Economics	Honors Economics
	Psychology 1	Psychology 1	Psychology 1
	Psychology 2	Psychology 2	Psychology 2
	Sociology 1	Sociology 1 Sociology 2	Sociology 1 Sociology 2
	Genocide (BMHS)	Genocide (BMHS)	Genocide (BMHS)
	Street Law (BMHS) American Pop Culture (NHS)	Street Law (BMHS) American Pop Culture (NHS)	Street Law (BMHS) American Pop Culture (NHS)
	Journalism 1 (NHS) Journalism 2 (NHS) Broadcast Journalism 1 (NHS)	Journalism 1 (NHS) Journalism 2 (NHS) Honors Journalism (NHS) Broadcast Journalism 1 (NHS)	Journalism 1 (NHS) Journalism 2 (NHS) Honors Journalism (NHS) Broadcast Journalism 1 (NHS)

	Broadcast Journalism 2 (NHS) Sports Media Communication 1 (NHS) Sports Media Communication 2 (NHS)	Broadcast Journalism 2 (NHS) Sports Media Communication 1 (NHS) Sports Media Communication 2 (NHS)	Broadcast Journalism 2 (NHS) Sports Media Communication 1 (NHS) Sports Media Communication 2 (NHS)
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<b>SS2206GAE</b>	<b>World History</b>	<b>Grade 9</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is a survey of World History from its origins to the 21<sup>st</sup> century. It will include historical development of economics, political, social and religious institutions with an emphasis on geography's impact on historical and cultural development.

<b>SS2209HAE</b>	<b>Honors World History</b>	<b>Grade 9</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is a survey of World History from its origins to the 21<sup>st</sup> century. It will include historical development of economics, political, social and religious institutions with an emphasis on geography's impact on historical and cultural development. Students will conduct some in-depth studies of themes in World History including conducting research, analyzing primary and secondary sources, writing a research paper, and/or completing a research project. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. **Strongly Recommended: B or better in grade 8; standardized assessment scores will be considered in teacher recommendation; strong writing and reading skills; ability to do independent writing and research.**

<b>SS2226GAE</b>	<b>United States History</b>	<b>Grade 10</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: US History]</b>			

This course surveys the development of the American political, socio-cultural, and economic landscapes during the post-Civil War period and investigates the role of the United States in world affairs. Provision may be made for students to concentrate on and/or specialize in areas of interest through classroom projects and writing assignments.

<b>SS2229HAE</b>	<b>Honors United States History</b>	<b>Grade 10</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: US History]</b>			

This course surveys the development of the American political, socio-cultural, and economic landscapes with an emphasis on the post-Civil War period and investigates the role of the United States in world affairs. Provision may be made for students to concentrate in special areas of interest through classroom projects, formal essays, and research papers. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. **Strongly Recommended: B or better in World History; standardized assessment scores will be considered in teacher recommendation; strong writing and reading skills; ability to do independent writing and research.**

<b>SS2241ACE</b>	<b>Advanced Placement United States History</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: US History]</b>			

This one-year course will cover the history of the United States from the colonial period through the modern age in accordance with the College Board requirements for Advanced Placement United States History course. Focus will be placed on the major developments in political-constitutional economic and diplomatic history, as well tracing developments in social, cultural and intellectual history through each major time period. Emphasis will be placed on drawing meaning from a wide variety of primary and secondary source documents and on the clarity of written expression. A college text will be used. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer**

assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.

SS2240ACE	UConn ECE AP United States History	Grades 10, 11, 12	1 Credit
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BMHS ONLY  
\*[Graduation Requirement: US History]

This course runs concurrently with Advanced Placement U.S. History and it is certified with UConn's Early College Experience (ECE) that grants students the opportunity to earn six college credits over the course of the year. Covers: UConn ECE HIST 1501 / 0.5 Credit and UConn ECE HIST 1502 / 0.5 Credit

SS2236GAC	Civics	Grade 10, 11, 12	0.5 Credit
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\*[Graduation Requirement: Civics]

The course surveys the origins and institutions of the US Government. Emphasis is placed on the political organization and structure of our national, state and local governments as well as their development. The Constitution and its interpretation will be studied through the use of Supreme Court decisions. Analysis and interpretation of outside readings will be required. Students are encouraged to actively participate in the democratic process and will be given an opportunity to participate in the governmental process through fieldwork projects.

SS2237HAC	Honors Civics	Grade 10, 11, 12	0.5 Credit
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\*[Graduation Requirement: Civics; Social Studies Related Course]

The course meets the Civics graduation requirement. The Constitution is often referred to as a living document; this one semester course will examine the progress of the Constitution and our changing understanding of its meaning. The focus of study will be how different groups have been affected by changes in the document over time. Beginning with its origins in Enlightenment thought, the course will trace the changes in the document and how our understanding of it has changed over time. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. **Strongly Recommended: B or better in previous year's social studies course; standardized assessment scores will be considered in teacher recommendation; strong writing and reading skills; ability to do independent writing and research.**

SS2259HAC	Honors Economics	Grades 10, 11, 12	0.5 Credit
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\*[Graduation Requirement: Social Studies Related Course]

The Honors Economics course will provide an introduction to microeconomic and macroeconomic theory as it applies to the American Free Enterprise System. Students will also study other economic systems, analyze and compare them to capitalism. Analysis and interpretation of outside readings will be required. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.

SS2260ACE	Advanced Placement Economics	Grades 10, 11, 12	1 Credit
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BMHS ONLY  
\*[Graduation Requirement: Social Studies Related Course]

The purpose of this one-year course in A.P economics is to give students a thorough understanding of the principles of economics that apply to the economics system as a whole (macroeconomics) and the individual decision makers, both producers and consumers, within the larger economic system (microeconomics). The course is intended to be the equivalent of a college level introductory course in micro and macroeconomics. Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.

SS2240ACE                      **Advanced Placement European History**                      **Grades 10, 11, 12**                      **1 Credit**

**NHS ONLY**

**\*[Graduation Requirement: Social Studies Related Course]**

This one-year course will cover the history of Europe from 1450 to the present, in accordance with the College Board requirements for Advanced Placement Modern European History course. The course will focus on cultural, economic, political and social developments that have played a fundamental role in shaping the western world. Emphasis will be placed on research and the analysis of primary sources. A college text will be used. The class will be conducted in a seminar style. Students will be involved in individual and/or group projects. Emphasis will be placed on the clarity of written expression. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

SS2263ACE                      **Advanced Placement Comparative Politics**                      **Grades 10, 11, 12**                      **1 Credit**

**NHS ONLY**

**\*[Graduation Requirement: Social Studies Related Course]**

This course follows two formats: The basic curriculum is a comparative study of the governments of foreign nations - The People's Republic of China, France, Mexico, Nigeria, Russia, and the United Kingdom. In learning to study using the comparative method, students develop the ability to make intelligent judgments about the functioning of any government in the modern world. The second format is a simulation of the United Nations. Once each month, students prepare for and participate in a debate on an issue of global importance. The rules and procedure of these debates are modeled after the General Assembly of the United Nations. Each student represents a particular nation for the school year. Research, public speaking and negotiation skills are developed in this segment of the course. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

SS2264ACE                      **Advanced Placement US Government and Politics**                      **Grades 11, 12**                      **1 Credit**

**NHS ONLY**

**\*[Graduation Requirement: Civics; Social Studies Related Course]**

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 Exam for U.S. Government and Politics. The course is for all intents and purposes 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. This course fulfills the Civics graduation requirement. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

**BMHS ONLY**                      **IB Group 3: Individuals and Societies**                      **Grades 11, 12**                      **1 credit per year**

SS2300ICE                      **IB History HL Y1**

SS2340ICE                      **IB History HL Y2**

**\*[Graduation Requirement: Social Studies Related Course] All IB Diploma students must take History HL or Global Politics SL**

This course includes a rigorous search into the histories of Early Modern States, focusing on societies in transition. The course will follow the historical narratives of the expansion of the Ottoman Empire throughout the Middle East, Europe, Africa, the Reconquista, and early Spanish conquest into the Americas. As a part of the required IB coursework, students will be challenged to conduct historical investigations and case studies on multiple subjects that will expand their understanding of perspective, cause and effect, and interpretation.

This course is the second year of the two-year IB higher-level course. Students will study three units related to the course theme of "Conquest and Its Impact" within the history of the Americas. These units will cover developments predominantly



in the United States, Mexico, Peru, Brazil, Haiti and Cuba. The first unit covers Indigenous societies and civilization (700-1500 CE) and European conquest in the Americas (1400-1600 CE). This explores the reasons posited by historians for Europeans' successful colonization and the new societies and governments created under colonial rule. The second unit covers slavery in the Americas (1400-1800 CE), including how and why it expands, as well as social and political consequences. The final unit is a case study for independence movements throughout the Americas (1763-1830 CE), which examines how and why various colonies overthrow imperial control. The course focuses on how indigenous and enslaved people resist conquest, assimilate to European rule, and preserve their culture.

<b>BMHS ONLY</b>	<b>IB Group 3: Individuals and Societies</b>	<b>Grades 11,12</b>	<b>1 credit per year</b>
<b>SS2310ICE</b>	<b>IB Global Politics SL Y1</b>		
<b>SS2311ICE</b>	<b>IB Global Politics SL Y2</b>		
<b>*[Graduation Requirement: Social Studies Related Course] All IB Diploma students must take History HL or Global Politics SL</b>			

This is a two year course in the IB program. Global politics as described by the International Baccalaureate Diploma Program is an exciting, dynamic subject that draws on a variety of disciplines in the social sciences and humanities, reflecting the complex nature of many contemporary political issues. The aims of the global politics course are to enable students to:

- Understand key political concepts and contemporary political issues in a range of contexts
- Develop an understanding of the local, national, international and global dimensions of political activity
- Understand, appreciate and critically engage with a variety of perspectives and approaches in global politics
- Appreciate the complex and interconnected nature of many political issues and develop the capacity to interpret competing and contestable claims regarding those issues.

The four core units that make up the class are:

- Power, sovereignty and international relations
- Human rights
- Development
- Peace and conflict

<b>SS2251GAC</b>	<b>Current Issues</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

Students in this related course develop an awareness of the sociopolitical and economic issues that face the global community. Students are challenged to understand their own value structure as well as the point of view of others in their nation and in the world. This understanding is key to recognizing what motivates the actions and decisions of world leaders and the populations they govern. The program is thematically organized, and case studies used must remain fluid to maintain the relevance of the content. From the menu provided teachers select topics from each theme. Freshman may take this course in addition to World History.

<b>SS2309GAC</b>	<b>Genocide</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>BMHS ONLY</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

Examines the psychological, cultural, and societal roots of human cruelty, mass violence, and genocide. We examine the questions of what enables individuals collectively and individually to perpetrate mass violence and genocide as well as examine the impact of apathetic bystanders on human violence. Genocides studied include the Armenian genocide, the Holocaust, the auto-genocide in Cambodia, the Rwandan genocide, the origins of the Irish Potato Famine and others.

<b>SS2258GAC3</b>	<b>Street Law</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>BMHS ONLY</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is designed to examine the United States judicial branch and court cases relevant to teenagers. Street Law will not only advance student understanding of justice, but also empower students with the skills, legal, and civic knowledge to bring about positive change for themselves and the community.

<b>SS2308GAC</b> NHS ONLY	<b>Social Justice</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This semester course is designed to increase students' awareness, knowledge, and understanding of issues related to diversity, human rights, social and economic justice. Diversity is understood as the intersectionality of multiple factors including age, class, color, culture, disability, ethnicity, gender, gender identity and expression, immigration status, political ideology, race, religion, sex, and sexual orientation. In this course, students will explore social justice movements like Women's Rights, Civil Rights, and LGBTQ+ etc.

<b>SS2270GAE</b> NHS ONLY	<b>American Studies and Pop Culture</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is for students who are interested in studying American History using popular culture. Students will be able to examine cultural products such as film, television, music, art, advertisement and study its relevance and connection to the society which produced them. This is a highly participatory class that requires students to analyze critique historical events and values that influenced popular culture.

<b>SS2272GAC</b>	<b>Psychology 1</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is a one-semester introductory survey of the field of human behavior. Topics include sensory awareness, perception, self-esteem, dreams, mediation, motivation, and the unconscious. Students use readings, experiments, roleplays, small and large group discussion, and projects to explore these areas of human behavior.

<b>SS2272GAC</b>	<b>Psychology 2</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is a one-semester, more advanced investigation of special topics in psychology. Some of the topics studied are major personality theories and abnormal behavior. These topics are studied through in-depth reading, research, and experiments, role-plays, small and large group discussions and projects to explore yourself, your family and your life choices.

**Prerequisite: Psychology 1**

<b>SS2283ACE</b>	<b>Advanced Placement Psychology</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

The purpose of the Advanced Placement Psychology course is to introduce students to the systematic and scientific study of behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

<b>SS2278GAC</b>	<b>Sociology 1</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is a one-semester study of society and the structures we build within society. The course will be based on the exploration of sociological perspectives, culture, and human nature through socialization, social structure, and research methods of sociologists. The class will use readings, articles, discussions, and projects to highlight how society is built.

<b>SS2279GAC</b>	<b>Sociology 2</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

In the second semester, the course focus is on the specific components of society, e.g., family, community, etc. The course will explore the concepts of social deviance and the impact of gender and racial inequality on society. The course will culminate with a study of urbanization, urban sprawl, and the effects of population growth on social structure. Students will be using discussion, articles and projects to explore these themes. **Prerequisite: Sociology 1.**

<b>SS2280GAC</b>	<b>Comparative Religions</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
* <b>[Graduation Requirement: Social Studies Related Course]</b>			
Religious ideals, allegiances, and conflicts have fueled historical and social changes around the world. In this course students will engage in a survey of world religions and will explore the ways in which religion has shaped the course of history, current belief systems, and important political and social issues.			
<b>SS2281GAC</b>	<b>Themes in African American History 1</b>	<b>BMHS Grades 11, 12</b> <b>NHS Grades 10, 11, 12</b>	<b>0.5 Credit</b>
* <b>[Graduation Requirement: Social Studies Related Course]</b>			
This course will include an examination of primary and secondary sources within the context of themes in modern African American history. Themes may include resistance, artistic & intellectual movements, slavery, freedom, and reform. Students will be expected to write a research paper that answers an important historical or sociological question.			
<b>SS2282GAC</b>	<b>Themes in African American History 2</b>	<b>BMHS Grades 11, 12</b> <b>NHS Grades 10, 11, 12</b>	<b>0.5 Credit</b>
* <b>[Graduation Requirement: Social Studies Related Course]</b>			
This course will include an examination of primary and secondary sources within the context of themes in modern & postmodern African American history. Themes may include resistance, artistic & intellectual movements, civil rights, emerging identities, and debates within the modern & post-modern African American community. Students will be expected to write a research paper that answers an important historical or sociological question. <b>Prerequisite: Themes in African American History 1</b>			
<b>SS2288GAC</b>	<b>Latin American Studies</b>	<b>Grades 10, 11, and 12</b>	<b>0.5 Credit</b>
* <b>[Graduation Requirement: Pathway Related Course]</b>			
This course is a survey of Latin American history starting with indigenous people of Latin America, colonization period, independence movements and democratization of Latin American countries. It will include development of economies, social, religious, and political institutions of Latin America.			
<b>AD0010GAC</b>	<b>Freshman Seminar</b>	<b>Grade 9</b>	<b>0.5 Credit</b>
<b>BMHS ONLY</b> <b>NHS FOUND IN ENGLISH SECTION</b>			
* <b>[Graduation Requirement: Pathway Related Course]</b>			
This interdisciplinary course is designed to introduce freshmen to the expectations and different career pathways of high school. The curriculum will follow the school-wide rubrics, focusing on communication skills, civic responsibility, problem solving, personal development (such as collaboration and self-advocacy), technology skills, and researching skills. This course will incorporate inquiry-based learning and authentic tasks.			
<b>SS2274GAC</b>	<b>Journalism 1</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b> <b>BMHS FOUND IN ENGLISH SECTION</b>			
* <b>[Graduation Requirement: Social Studies Related Course]</b>			
This introductory course will include class instruction and lab activity. Students will practice the fundamentals of news writing, differentiate between news and opinion, and track current issues on the local, national, and international scenes. Students will study the function, techniques, and responsibilities of journalism. Students will assist with the preparation and publication of the school newspaper. This course is recommended for students whose writing skills are firmly grounded. The course introduces students to the history of journalism and covers the basic requirements for using Adobe software In-Design.			
<b>SS2275GAC</b>	<b>Journalism 2</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b> <b>BMHS FOUND IN ENGLISH SECTION</b>			
* <b>[Graduation Requirement: Social Studies Related Course]</b>			
This course offers students more of a role in the production of the student newspaper. Students are tasked with editing student work, organizing photography, and the general design of the paper. Students determine how the advertising and distribution of the paper is managed. Students in Journalism II are already familiar with the AP standards for writing and			

have experience with In-Design software. These students have shorter deadlines and are required to cover more long term, in depth writing assignments. Further, the class requires students to organize class discussions and meetings. After school hours are required to meet deadlines necessary to the publication of the paper. **Prerequisite: Journalism 1**

<b>SS2287HAE</b>	<b>Honors Journalism 3</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>BMHS FOUND IN ENGLISH SECTION</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is for students who are committed to the publication of the student run newspaper. Students in this course have taken Journalism I & II and will be assigned an Editor or Manger position. Students are expected to know the Associated Press writing standards and have mastered Adobe InDesign. Positions include: Editor In-Chief, News Editor, Opinion Editor, A&E Editor, Sports Editor, Photography & Design Editor, Feature Editor, and Business Manager. These students will manage the content from Journalism I & II students. **Prerequisites: Journalism 1 and Journalism 2.**

<b>SS2277GAE</b>	<b>Broadcast Journalism 1</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This introductory study of broadcast media (television, film, and internet) aims to analyze and critique the mass media through perspective of the humanities. This full year course will include technical instruction as well instruction on writing for the ear, editing news stories, video production including the editing components. The main thrust of the course is for the students to produce the content for the weekly Broadcast of Norwalk High School's news show, BEAR COUNTRY NEWS. Students who take this class will learn to become independent learners as well as fostering their abilities to work with others.

<b>SS2286GAE</b>	<b>Broadcast Journalism 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

Students in this course will manage and organize teams of student in order to edit and produce a weekly news program apply skills and knowledge gained in Broadcast 1. Students will have learned the basics of Final Cut Pro Ten in the Broadcast 1 and will deepen their knowledge of this industry standard software. In addition, they will utilize the Tri-Caster computer system, as well as the Devos Video Delivery System. These students will take on managerial roles and organize the production teams in order to produce a 10 to 25-minute news program that is shown during Advisory. **Prerequisite: Broadcast Journalism 1**

<b>SS2318GAE</b>	<b>Sports Media Communication 1</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course will provide students with foundational skills in sports journalism necessary to be able to implement a program in sports information, publicity, marketing and promotions. Course content includes: preparation of news releases and feature stories; publishing programs and brochures; compiling statistical breakdowns; performing research to develop narratives; working in conjunction with established media partnerships; filming and editing game contests; and serving as announcers and commentators through live streaming.

<b>SS2318GAE</b>	<b>Sports Media Communication 2</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

Students in this course will manage and organize collaborative teams of students in order to build the brand that is Norwalk High Athletics. Students will apply the skills and knowledge gained in the prerequisite course Sports Media Communications 1 to be prepared to take on managerial roles as key editors in organizing content and managing the workflow of the material produced. **Prerequisite: Sports Media Communication 1**

**DIGITAL MEDIA AND COMMUNICATION ACADEMY AT NHS ONLY**

<b>CM2302GAC</b>	<b>Media Consumption and Creation</b>	<b>Grades 9,10</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

A semester long examination of the US culture, and how the media (music, television, and film) has shaped the country. Students will also investigate the role this has in the 21<sup>st</sup> century as “new media” (internet, social networking, smart phones) are impacting the way democracy functions. Students will “act out” scenarios utilizing a variety of mediums. Students will analyze how their own opinions are shaped by their consumption of media. Students will learn the impact the content they create has on society. **This course is the foundational requirement for grade 9 and 10 (Phase 1) students in the Digital Media and Communications Academy. It is open to all Norwalk High School students as well as any Brien McMahon High School student that wishes to be a part of the academy.**

<b>CM8813GAE</b>	<b>Advanced Media Studies</b>	<b>Grades 10,11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Pathway Related Course DMCA]</b>			

All students enrolled in the Digital Media and Communications Academy are required to complete this course with a passing grade. Students will have the opportunity to build the foundation necessary to navigate the digital media world. This fundamental course will include training in the software necessary to continue in their pursuit of telling their story whether through words, images or design. Students will become well-versed in the industry standard software Adobe Suite; which includes Photoshop, InDesign, Illustrator, Premier, Character Animator, Audition, among other applications.

<b>CM2296GAC</b>	<b>Digital Communications</b>	<b>Grades 10,11, 12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Pathway Related Course DMCA]</b>			
<b>This course is available for college credit through Quinnipiac University</b>			

This semester long course will teach students about the role journalism plays in society, the impact that it has had on people and the powerful learning *Adobe InDesign*. Students will learn the importance of developing a story, research skills, interview prep along with the skills needed to conduct an interview. The course will highlight several of the most important news stories of the last fifty years to demonstrate the role good journalism plays. Professionals from the field will regularly come in to give first-hand accounts of how the field operates in real world practices. **Prerequisite: Advanced Media Studies**

<b>CM0085GAC</b>	<b>Film Production</b>	<b>Grades 10,11, 12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Pathway Related Course DMCA]</b>			
<b>This course is available for college credit through Quinnipiac University</b>			

Students will have the opportunity to explore the many aspects of filmmaking in both the narrative form well as the Documentary style learning *Adobe Premiere Pro*. This student driven course will allow the participants to further develop the technical, organizational and creative skill needed to make a film. Adobe Premier software will be used to produce the content. The student will work at the Digital Media Pathway with industry professionals and Norwalk High School Faculty. **Prerequisite: Advanced Media Studies**

<b>CM8858GAC.</b>	<b>Audio Design and Podcasting</b>	<b>Grades 10,11,12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>* [Graduation Requirement: Pathway Related Course DMCA]</b>			
<b>This course is available for college credit through Quinnipiac University</b>			

Audio Design is a hands-on course designed to allow students to create sound for various forms of media as well as becoming proficient in audio production techniques utilizing industry standard software such as Adobe Audition. Students will learn about studio operations, recording principles, sound-mixing , editing and effects processing while become proficient with the software. The course will provide students with the opportunity to create original sound content for a variety of film and television projects as well as the chance to work side by side with industry professionals on radio and podcast projects. Students will conduct background research, learn the art of writing a good story and develop collaboration skill necessary to produce original content. Students will also have the chance to record and produce musical content.

**CM8857GAC Communication Through Photography and Graphic Design Grades 10,11,12 0.5credit**

**NHS Only**

**[Graduation Requirement: Pathway related course DMCA]**

**This course is available for college credit through Quinnipiac University**

Capturing the world around you and using the visual media to communicate to others requires knowledge of appropriate software and an observant eye. This course is designed to teach digital photography, and the manipulation of imagery through Adobe Photoshop and Illustrator. Students will learn the principles of design through the use of lighting, composition as well as utilizing graphics to tell their stories. Students will create photographs and graphics that will be used for film posters, documentary films, new story images on the website. The essential skills of utilizing images ethically to tell a story will be fostered. Students will be required to research their subjects and responsibly publish their work.

**CM5511GAC Digital Web Development Grades 11, 12 0.5 Credit**

**NHS ONLY**

**\*[Graduation Requirement: Pathway Related Course DMCA/STEM Credit]**

In this course students will build and maintain business entrepreneurial World Wide Web sites utilizing HTML, and *Dreamweaver*. Instruction will encompass a variety of business web site design issues. Recent developments and business applications concerning the Wide World Web will also be learned. Students will learn to develop websites to market business enterprises and products and how to communicate with customers via the Internet. The students in this program will help to manage the digital hub for all things media at Norwalk High School, nhsbearsden.com. **Prerequisite: Advanced Media Studies**

**CM2890GAC Digital Portfolio/ Capstone Grades 10,11, 12 0.5 Credit**

**NHS ONLY**

**\*[Graduation Requirement: Social Studies Related Course]**

Students will have the opportunity to explore the many aspects of the *Adobe Suite* and choose their own path of study. Students will research and develop a digital portfolio using the storytelling skill set they have acquired as part of the DMCA. Students will use the body of work they have created in the DMCA in order to finalize their portfolios. The students will create content that will not only promote their own efforts but will have the opportunity to work with clients in order to produce viable content in a real world setting.

**CM0072GAE DMCA Yearbook in Design Grades 9, 10, 11, 12 1 Credit**

**NHS ONLY**

**\*[Graduation Requirement: Fine Arts]**

In this class, students will study the function, techniques, and responsibilities of yearbook design. The course will include instruction and lab activity. Students will assist with the preparation and publication of the senior yearbook. This course is recommended for students whose writing skills are firmly grounded. Students will have Photoshop lessons to design page layouts. Students will also have instructions on marketing and advertisement to sell and distribute final product. Yearbook is a permanent Legal Document: it gives students opportunities to gather points toward college admissions. It also will give students a good understanding of how to use Photoshop, Windows, and the Adobe Suite in creating pages and advertisements. Students will be assigned deadlines and tasks to complete for grading purposes. **Prerequisite: Teacher recommendation.**

## Visual Art

The Art Department offers many exciting courses for students to develop their creative expression through the visual arts. Students learn higher order thinking skills, problem solving, planning strategies, and the correct application of the elements of art and the principles of design. Working independently and collaboratively, students use traditional as well as experimental approaches to fine arts. Students create art and develop visual literacy. Students practice art history informed criticism as well as aesthetics. **Art**

### Course Sequence

9	10	11	12
Art 1	Art 1	Art 1	Art 1
Art 2 (NHS)	Art 2 (NHS)	Art 2 (NHS)	Art 2 (NHS)
Art History (NHS)	Art History	Art History	Art History
Cultural Perspectives in Art	Cultural Perspectives in Art	Cultural Perspectives in Art	Cultural Perspectives in Art
Design 1	Design 1 & 2	Design 1 & 2	Design 1 & 2
Drawing 1	Drawing 1 & 2	Drawing 1 & 2	Drawing 1 & 2
Digital Art 1 (NHS)	Digital Art 1 & 2 (NHS)	Digital Art 1 & 2 (NHS)	Digital Art 1 & 2 (NHS)
Graphic Design (BMHS)	Graphic Design (BMHS)	Graphic Design (BMHS)	Graphic Design (BMHS)
Painting 1	Painting 1 & 2	Painting 1 & 2	Painting 1 & 2
Printmaking 1	Printmaking 1 & 2	Printmaking 1 & 2	Printmaking 1 & 2
3D Sculpture 1	3D Sculpture 1 & 2	3D Sculpture 1 & 2	3D Sculpture 1 & 2
	Clay Sculpture (NHS)	Clay Sculpture (NHS)	Clay Sculpture (NHS)
	Digital Video and Animation 1 (NHS) Digital Media 1 (BMHS)	Digital Video and Animation 1 (NHS) Digital Media 1 (BMHS)	Digital Video and Animation 1 (NHS) Digital Media 1 (BMHS)
	Digital Video and Animation 2 (NHS) Digital Media 2 BMHS Only	Digital Video and Animation 2 (NHS) Digital Media 2 BMHS Only	Digital Video and Animation 2 (NHS) Digital Media 2 BMHS Only
Photo 1	Photo 1 & 2	Photo 1 & 2	Photo 1 & 2
	Honors Photo 3 (NHS)	Honors Photography 3 (NHS)	Honors Photography 3 (NHS)
		Honors Photography 4 (NHS)	Honors Photography 4 (NHS)
Modern and Contemporary Art (NHS)	Modern & Contemporary Art (NHS)	Modern & Contemporary Art	Modern & Contemporary Art
Textile Arts (NHS)	Textile Arts 1 (NHS)	Textile Arts 1 (NHS)	Textile Arts 1 (NHS)
	Textile Arts 2 (NHS)	Textile Arts 2 (NHS)	Textile Arts 2 (NHS)
	AP Art History	AP Art History	AP Art History
		Honors Portfolio	Honors Portfolio
		AP Studio Art	AP Studio Art
Photographic Alternative Process (NHS)	Photographic Alternative Process (NHS)	Photographic Alternative Process (NHS)	Photographic Alternative Process (NHS)
Yearbook in Design (BMHS)	Yearbook in Design (BMHS)	Yearbook in Design (BMHS)	Yearbook in Design (BMHS)
		BMHS ONLY: IB Visual Arts Year 1 HL/SL IB Art History Year 1 SL IB Film Year 1	BMHS ONLY: IB Visual Arts Year 2 HL/SL IB Art History Year 2 SL IB Film Year 2

**AR8801GAE**

**Art 1**

**Grades 9, 10, 11, 12**

**1 Credit**

**\*[Graduation Requirement: Fine Arts]**

This class is the department foundation full-year class designed to introduce students to the principles and elements of art. This course teaches students a wide variety of materials and techniques for creating art. Drawing skills, essential to the creative process, are stressed as well as painting, printmaking, and sculpture. Students are introduced to the computer lab and the Adobe Creative Suite. Students build a large art vocabulary while learning how to critique their own and others' artwork. Students are required to keep a sketchbook for homework and design ideas.

AR8802GAC	Art 2	Grades 9, 10, 11, 12	0.5 Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

Students taking Art II create advanced drawing, painting and collage projects while learning advanced applications of the principles and elements of art and design. Students look at, write about, discuss and create artworks influenced by master artists to guide their artistic choices as well as deepen their visual literacy. Advanced Middle School art students can bypass Art I and register for Art II with a Middle School art teacher recommendation. 9<sup>th</sup> Graders are expected to register for a second, Part I course, the other Semester. Homework is required. **Prerequisite: Art 1 or Middle School Art Teacher Recommendation**

AR8803GAC	Design 1	Grades 9, 10, 11, 12	0.5 Credit
*[Graduation Requirement: Fine Arts]			

In this class, students create products for a “client or company” by learning and utilizing fine art concepts and skills in; product/ industrial, marketing/advertising, interior, textile, environmental and set design. This class is open to freshmen taking Art 2 the other semester. Students are required to keep a sketchbook for homework and design plans. **Prerequisite: Art 1, Art 2 or Middle School Art Teacher Recommendation**

AR8804GAC	Design 2	Grades 10, 11, 12	0.5 Credit
*[Graduation Requirement: Fine Arts]			

This course teaches students advanced fine art concepts in; product/ industrial, marketing /advertising, interior, textile, environmental and set design. Students will work with various methods and materials to create new products for the marketplace. Through theory, practice and reflection, students will develop original approaches to solve multiple rigorous design challenges. A sketchbook for design plans and homework is required. **Prerequisite: Design 1**

AR8805GAC	Drawing 1	Grades 9, 10, 11, 12	0.5 Credit
*[Graduation Requirement: Fine Arts]			

This course is designed for all students who would like the opportunity to increase their drawing skills in an intense half-year course. Students explore a wide variety of drawing techniques, materials, subjects and styles. Drawing will be based on observation and imagination that will lead the student to self-discovery and awareness of his/her environment. A sketchbook/journal is required to plan and think through composition ideas. **Prerequisite: Middle School Art Teacher Recommendation**

AR8806GAC	Drawing 2	Grades 10, 11, 12	0.5 Credit
*[Graduation Requirement: Fine Arts]			

This course challenges the technically skilled drawing student. Students focus on portfolio pieces concentrating on portraiture, the human figure, still life, and landscape drawings. **Sketchbooks are required to keep a record of progress and ideas for future drawing compositions. Prerequisite: Drawing 1**

AR8807GAC	Painting 1	Grades 9, 10, 11, 12	0.5 Credit
*[Graduation Requirement: Fine Arts]			

For the student who loves to paint, this class is designed for the student who wishes to explore and improve in all forms of painting media, techniques, and subjects. Media to include: Watercolor, Gouache, and Acrylics. Art styles will be the focus as students learn the basics of color media. As with other classes, a sketchbook is required, as the student will be using it to render sketches for painting subjects. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation**

AR8808GAC	Painting 2	Grades 10, 11, 12	0.5 Credit
*[Graduation Requirement: Fine Arts]			

Students who would like to add to their portfolio will be challenged in this advanced painting course. They will be asked to create thematic, meaningful and current paintings; which will expose intent and mastery of media. Opportunities to work independently and to make personal choices for materials and techniques will be given throughout the semester. **Prerequisite: Painting 1**



<b>AR8809GAC</b> <b>*[Graduation Requirement: Fine Arts]</b>	<b>Printmaking 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<p>Students in this course will be able to make multiple copies and editions of artwork rendered in a variety of printmaking media, techniques, and subjects. Media include: stencil, monoprint, collagraph, linoleum, woodcut, dry-point etching, and embossed prints as well as found object printmaking. In addition to making prints, student will engage in these media through historical and conceptual topics. <b>Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation</b></p>			
<b>AR8810GAC</b> <b>*[Graduation Requirement: Fine Arts]</b>	<b>Printmaking 2</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<p>Students in this course will learn advanced printmaking techniques and processes building on previous techniques and media covered in Printmaking 1. Students work in a variety of media including; reduction printmaking, multiple layer stencil, woodcut, embossing and collage transfer. Students can research independently new methods and materials. This class encourages both collaborative and independent work. <b>Prerequisite: Printmaking 1</b></p>			
<b>AR8811GAC</b> <b>*[Graduation Requirement: Fine Arts]</b>	<b>3D Sculpture 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<p>This course is a 3-dimensional art or sculpture class. Students learn to make artworks in a variety of media including; folded paper/ cardboard, papier-mâché, clay, wood, assemblage, wire, and plaster. Students learn clay/ ceramics hand building techniques. Students will learn to visualize and create artworks from 2D plans in 3D form using a sketchbook for homework and design plans. <b>Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation</b></p>			
<b>AR8812GAC</b> <b>*[Graduation Requirement: Fine Arts]</b>	<b>3D Sculpture 2</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<p>This class offers students advanced clay hand building and wheel thrown pottery techniques. Students problem solve building sculptures using more challenging applications of the principles and elements of art and design. Students create 3D artworks from a variety of methods and materials including; paper, papier-mâché, clay, wire, wood and assemblage. Students must be able to work independently and collaboratively. Students will learn to visualize and create artworks from 2D plans in 3D form using a sketchbook for homework and design plans. <b>Prerequisite: 3D Media 1, 3D Sculpture 1</b></p>			
<b>AR8859GAE</b> <b>BMHS ONLY</b> <b>*[Graduation Requirement: Fine Arts]</b>	<b>Graphic Art and Design</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>In this exploratory course, students learn the elements and principles of design, as well as foundational concepts of visual communication. While surveying a variety of design, fine art, and media, students use image editing, animation, and digital drawing to put into practice the art principles they have learned. They explore career opportunities in the design, production, display and presentation of digital artwork. They respond to artwork of others and learn how to combine artistic elements to create finished pieces that effectively communicate their ideas.</p>			
<b>AR8931GAC</b> <b>BMHS ONLY</b> <b>*[Graduation Requirement: Fine Arts]</b>	<b>Digital Media I</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5Credit</b>
<p>This course teaches students how to create digital video in the form of narratives, commercials, music videos, short videos, traditional and stop-motion animation. Students will learn each step in the creative process from pre- to post-production. Students are introduced to a variety of software applications and programs. Finished works are presented for class review. <b>Prerequisite: Photo 1 or Art 1 and teacher recommendation</b></p>			
<b>AR8932GAC</b> <b>BMHS ONLY</b> <b>*[Graduation Requirement: Fine Arts]</b>	<b>Digital Media II</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5Credit</b>
<p>This course teaches students how to create advanced videos and digital animation in the form of narratives, original videos, and digital animations. Students will learn each step in the creative process from storyboarding, pre- to post-production, and visual and audio editing. Students develop 21st Century Learning skills with advanced application of course software application. Students premiere their finished works for review in groups or individually. <b>Prerequisite: Digital Media 1</b></p>			

AR8848GAC	Digital Video and Animation 1	Grades 10, 11, 12	0.5Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

This course teaches students how to create videos and digital animation in the form of narratives, commercials, music videos, short videos, traditional and stop-motion animation. Students will learn each step in the creative process from pre- to postproduction. . Students are introduced to a variety of software applications. Finished works are presented for class review.

**Prerequisite: BMHS only Photo 2 or Photo 1 and teacher recommendation NHS Only Digital Art 1, Art 1, Photo 1,**

AR8926GAC	Digital Video and Animation 2	Grades 10, 11, 12	0.5Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

This course teaches students how to create advanced videos and digital animation in the form of narratives, commercials, music videos, videos, traditional and stop-motion animation. Students will learn each step in the creative process from storyboarding, pre- to post-production, and editing. Students develop 21st Century Learning skills with advanced application of course software application. Students premiere their finished works for review in groups or individually. **Prerequisite: Digital Video and Animation 1**

AR8925GAC	Digital Art I	Grades 9, 10, 11, 12	0.5Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

In Digital Art I course students will learn the principles and elements of art as they apply to digital art and design. Students will create projects modeled after real-world industry assignments, developed in Adobe Photoshop and Illustrator. Students will present a final project at the conclusion of the course. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation**

AR8926GAC	Digital Art II	Grades 9, 10, 11, 12	0.5Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

In Digital Art II course, students will learn advanced principles and elements of art as they apply to digital art and design. Students will create advanced real-world projects modeled after industry assignments developed in Adobe Photoshop and Illustrator. Students will create digital art projects utilizing advanced Adobe tools. Students will create a mock company, logo and website. Students will learn copyright and fair use policies for Internet imagery and digital design. At course end, students will present a final project as an animated graphic advertisement for their company. **Prerequisite: Digital Art I**

AR8860GAC	Clay Sculpture	Grades 10, 11, 12	0.5 Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

In this class, students will be required to apply skills and clay making techniques learned in 3-D Media 1 including: pinch, coil, slab construction, drape molding, sculpting, and others to create advanced hand-built sculptures. Students will learn to visualize a 3D form from a 2D plan. Students will create plans, measuring and accurately recording their design ideas to explain and build. Students will learn advanced hand building techniques and apply aesthetic criteria to create small- and large-scale additive and subtractive sculptures ranging from portrait busts, creatures, animals, or humans and utilitarian objects to abstract artworks. Students will learn advanced glazing techniques and acrylic vase painting. Finished clay sculptures can be functional and decorative. Homework is required. **Prerequisite: 3D Media 1, 3D Sculpture I**

AR8841GAC	Photography 1	Grades 9, 10, 11, 12	0.5 Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

This class is an introductory course covering the basics of black and white photography. Students begin with non-camera darkroom imagery, build and use pinhole cameras, and learn how to create images using a film camera. Students learn how to make contact sheets and to enlarge images from negatives. Students learn Digital Photography and Photoshop. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation**

AR8842GAC	Photography 2	Grades 9, 10, 11, 12	0.5 Credit
* <b>[Graduation Requirement: Fine Arts]</b>			

This class is an extension of Photo 1 that offers students a more in depth look into how to take good quality photographic images. In this course students will learn how to process their own film and learn more advanced darkroom techniques such as using the filter system. Students will be introduced to lighting techniques both natural and manipulative. Students learn advanced Digital Photography and Adobe Suite applications. **Prerequisite: Photography 1**

AR8802GAC	Photographic Alternative Processes	Grades 9, 10, 11, 12	0.5 Credit
NHS ONLY			
* <b>[Graduation Requirement: Fine Arts]</b>			

In this course students will apply the principles and elements of art and photography to the alternative processes of Cyanotype Van Dyke, Anthotype, Chemogram and Print Transfers. Students will learn the History of Photography and how these alternative processes and photographic genres were utilized as well as integrate within contemporary photographic practice. Students will photograph with Smart phone cameras and budget point and shoot cameras to incorporate digital photo techniques and technologies, such as digitally enlarged negatives, into their artwork. **Prerequisite: Art 1, Art 2 or Middle School Art Teacher Recommendation**

AR8850HAC	Honors Photography 3	Grades 10, 11, 12	0.5 Credit
NHS ONLY			
* <b>[Graduation Requirement: Fine Arts]</b>			

This course expands on the use of the camera established in Photo 2. Students will explore advanced shooting techniques and the chemical process of film developing. Darkroom instruction will include introduction of filters and burning and dodging techniques. Students learn advanced Digital Photography and Adobe Suite applications. **Prerequisite: Photography 2**

AR8851HAC	Honors Photography 4	Grades 10, 11, 12	0.5 Credit
NHS ONLY			
* <b>[Graduation Requirement: Fine Arts]</b>			

Students learn advanced Digital Photography and Adobe Suite applications. Layers, masking, and color correction among other methodologies will be part of the instruction. In the darkroom processes such as double exposure, the Sabatier effect, and other techniques will be introduced, allowing greater creative expression. **Prerequisite: Photography 3**

AR8901GAC	Textile Arts 1	Grades 9, 10, 11, 12	0.5 Credit
NHS ONLY			
* <b>[Graduation Requirement: Fine Arts]</b>			

This course is designed to teach students textile making, designing and fiber arts. Students will learn a variety of hand and machine sewing techniques as well fiber arts including; knitting, crocheting, weaving, macramé, embroidery, paper craft including silk screening. Students will learn historical and cultural connections to craft based techniques. Students create sketchbooks and are required to submit unit design plans. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation**

AR8902GAC	Textile Arts 2	Grades 10, 11, 12	0.5 Credit
NHS ONLY			
* <b>[Graduation Requirement: Fine Arts]</b>			

This course is designed to teach students advanced textile making, designing and fiber arts. Students will learn a variety of advanced hand and machine sewing techniques as well as advanced fiber arts including; knitting, crocheting, weaving, macramé, embroidery and paper craft. Students will learn historical and cultural connections to craft based techniques. Students create sketchbooks and are required to submit unit design plans. Students will visit a Design studio or place of employment to learn about vocational educational opportunities. Students will create a final project or a Capstone experience. **Prerequisite: Textile Arts 1**

AR8843GAC	Art History		0.5 Credit
BMHS Grades 10, 11, 12			
NHS Grades 9, 10, 11, 12			
*[Graduation Requirement: Fine Arts]			

This half-year survey class is designed for students who wish to study the global history of art from Pre-historic to the present. Students read, write about, and discuss art. Minimal art making is involved. Students learn to distinguish between arthistorical arguments that are rooted in historical fact, accepted scholarly interpretation, and informed speculation. This class can be used as a preparation for AP Art History.

AR8864GAC	Modern and Contemporary Art	Grades 9, 10, 11, 12	0.5 Credit
NHS ONLY			
*[Graduation Requirement: Fine Arts]			

In this class, students will look at, read, talk about, and create a variety of modern and contemporary global art styles including but not limited to: Impressionism, Post-Impressionism, Cubism, Abstract Art, Surrealism, Abstract Expressionism, Pop Art, Photo Realism, Folk Art, Contemporary Crafts, Performance Art and more! Students will learn about the history of art while creating Modern and Contemporary art styles with a variety of art making methods and materials including: drawing, painting, printmaking, sculpture, and crafts. Homework is required. **Prerequisite: Art 1, Art 2 or Middle School Art Teacher Recommendation.**

AR8846ACE	Advanced Placement Art History	Grades 10, 11, 12	1 Credit
*[Graduation Requirement: Fine Arts]		(NHS Grade 9 with Teacher Approval)	

This class is a college level survey class covering Art from Prehistoric time to the present. AP Art History focuses on reading, analysis of, writing, and discussion about art and art history. This course is designed to teach students to analyze art through the lenses of Formalism, historical, religious, cultural, political, gender, and socio-economic contexts. It is also intended to prepare students for the College Board National Art History Exam. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.** Prerequisite: Required summer work.

AR8844HAE	Honors Portfolio	Grades 11, 12	1 Credit
*[Graduation Requirement: Fine Arts]			

This class is designed for Art Students who want to build a superior portfolio, a body of work, for higher educational review. Portfolio students can be preparing for AP Studio Art, taking AP concurrently, or have finished AP Studio Art class. Students are expected to be proficient in 2D Processes. Students create a substantial (20-24 pieces) portfolio of finished artwork. **Prerequisite: Two years of art classes.**

AR8845ACE	Advanced Placement Studio Art	Grades 11, 12	1 Credit
*[Graduation Requirement: Fine Arts]			

This class is designed for students pursuing art in their higher-level educational choices. A rigorous course with art school foundation level expectations, AP Studio requires a portfolio review and summer work for acceptance. Students create a concentration of (30) quality works for review and scoring by the College Board. Students with passing exam scores earn college credits. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.** Prerequisite: Two years of art classes.

AR8853GAC	Cultural Perspectives in Art	Grades 9, 10, 11, 12	0.5 Credit
*[Graduation Requirement: Fine Arts]			

This course introduces and examines critical cultural studies and theories of culture particularly related to the Middle East, South Asia, and Africa. This course will enable students to articulate their emerging knowledge of Middle East, South Asian, and African cultures in a theoretically informed language. Students will develop critical thinking and creativity through problem solving and self-assessment. Students will create original artwork based on an appreciation of native artists' techniques and cultural tradition.

<b>AR8847GAE</b> <b>BMHS ONLY</b>	<b>Yearbook in Design</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Fine Arts]**

In this class, students will study the function, techniques, and responsibilities of journalism design. The course will include instruction and lab activity. Students will assist with the preparation and publication of the senior yearbook. This course is recommended for students whose writing skills are firmly grounded. Students will have Photoshop lessons to design page layouts. Students will also have instructions on marketing and advertisement to sell and distribute final product. Yearbook is a permanent Legal Document: it gives students opportunities to gather points toward college admissions. It also will give students a good understanding of how to use Photoshop, Windows, and the Adobe Suite in creating pages and advertisements. Students will be assigned deadlines and tasks to complete for grading purposes.

**Prerequisite: Teacher recommendation.**

<b>CM8857GAC</b> <b>NHS ONLY DMCA</b>	<b>Communication through Graphic Design</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
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**\*[Graduation Requirement: Fine Art]**

Capturing the world around you and using the visual media to communicate to others requires knowledge of appropriate software and an observant eye. This course is designed to teach digital photography, and the manipulation of imagery through *Adobe Photoshop and Illustrator*, and Apple's *Motion*. In the Photography portion, students will learn proper composition of photos, use of light to enhance the subject, and file types and management. Bringing images into Photoshop, students will learn color correction, cropping, and image manipulation. Motion will allow students to create video splash pages to introduce and personalize their media creations, adding their own special identifying signature to their work. **Prerequisite:**

**Advanced Media Studies**

<b>BMHS ONLY</b>	<b>IB Group 6: The Arts</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>AR8856ICEIB</b>	<b>IB Visual Art HL Y1</b>		
<b>AR8904ICEIB</b>	<b>IB Visual Art HL Y2</b>		
<b>AR8905ICEIB</b>	<b>IB Visual Art SL Y2</b>		

**\*[Graduation Requirement: Fine Arts]**

IB Art is a studio-based art course that highlights the creative process as a method for learning. Students develop 2D, 3D, or time-based art products as a result of skill development and artistic inquiry. Students focus on their own thinking and art making processes. Students document their learning in written and visual formats as evidence of in-depth research into chosen areas of interest. Throughout the course emphasis is placed on all stages of the creative process: plan and practice; create; revise; present; reflect. Students are encouraged to be independently motivated, as they investigate the history and practice of a chosen art form. Students form a thesis across cultures, time periods, and disciplines to unite their work throughout the course. Students will learn how to connect research and art creation that expresses personal meaning within a cultural, historical and discipline-based context. In addition to learning how to appreciate and evaluate their own work and that of others, students will be encouraged to stretch and explore their own work and share it with an audience through critiques, exhibitions, and presentations.

SL IB ART: Over the course of the year, students experiment with various media, techniques, processes, and styles. Gradually, they are asked to identify themes in their own work and determine an area of focus. Through various teacher-driven assignments, students will gain practice in taking ideas and ways of knowing, from other disciplines, as inspiration for artistic expression.

HL IB ART: Students concentrate their work in one or two media and focus on developing a strong, cohesive portfolio of art that explores a central thesis that shows evidence of depth and breadth of research and investigation. Thematic series are strongly recommended and occur naturally in most cases.

The IB program recommends that the class be 60 percent art production and 40 percent related research (Option A). (Or as an alternative for students interested in Art History and Research, 60 percent research and 40 percent art production (Option B)). IB Art student's summative Art exam in Studio Work is an individual art show of 10 to 15 works. Students are expected to participate in all educational field experiences, and in gallery exhibitions, especially in their senior year.

<b>BMHS ONLY</b>	<b>IB Group 6: The Arts</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>AR8913ICEIB</b>	<b>IB Film HLY1</b>		
<b>AR8915ICEIB</b>	<b>IB Film SLY1</b>		
<b>AR8914ICEIB</b>	<b>IB Film HLY2</b>		
<b>AR8916ICEIB</b>	<b>IB Film SLY2</b>		
<b>*[Graduation Requirement: Fine Arts]</b>			

The creation, presentation and study of film requires courage, passion and curiosity: courage to create individually and as part of a team, to explore ideas through action and harness the imagination, and to experiment; passion to communicate and to act communally, and to research and formulate ideas eloquently; curiosity about self and others and the world, about different traditions, techniques and knowledge, about the past and the future, and about the limitless possibilities of human expression through the art form.

At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement and imaginative synthesis that is achieved through practical engagement in the art and craft of film.

<b>BMHS ONLY</b>	<b>IB Group 6: The Arts.</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>AR8913ICEIB</b>	<b>IB Art History SL1</b>		
<b>AR8915ICEIB</b>	<b>IB Art History SL2</b>		
<b>*[Graduation Requirement: Fine Arts]</b>			

This course involves an intensive study of notable works of architecture, sculpture, painting, and other art forms within diverse and historical contexts. Over the course of two years students will develop their understanding of artistic heritage in broad terms, from delving into scholarly sources and gaining first-hand knowledge of museum and art gallery collections, to analyzing the visual imagery surrounding them in all aspects of life. This course gives students the means to critically engage with the images, which saturate our world, to explore why they look the way they do, and to interpret their layers of meaning. Students will be actively engaged with visual analysis, reading assignments, writing assignments, and oral presentations. Students will learn to understand the vital role artistic expression holds within all societies and recognize the universality of human thought and artistic expression in conveying historical, cultural, and personal perspectives. Students may earn college credit by passing the IB exam.

## Music

Students involved in all major performing organizations are required to participate consistently in lessons and/or sectional rehearsals as part of the course content. Individualized instruction will be scheduled on a rotating basis and will meet a minimum of once a week. Students may elect to choose the same performing group for multiple years.

### Music Course Sequence

9	10	11	12
Prelude Orchestra	Prelude Orchestra	Prelude Orchestra	Prelude Orchestra
Symphonic Band	Philharmonic Orchestra	Philharmonic Orchestra	Philharmonic Orchestra
Beginning Choir	Honors Principal Orchestra	Honors Principal Orchestra	Honors Principal Orchestra
Intro. to Music Theory (BMHS) Music Theory (NHS)	Symphonic Band	Symphonic Band	Symphonic Band
Color Guard	Wind Ensemble	Wind Ensemble	Wind Ensemble
Winter Guard	Honors Wind Symphony	Honors Wind Symphony	Honors Wind Symphony
Winter Percussion Ensemble	Beginning Choir	Beginning Choir	Beginning Choir
Jazz Ensemble	Advanced Choir	Advanced Choir	Advanced Choir
Theatre Studies 1 (NHS only)	Choral Ensemble	Choral Ensemble	Choral Ensemble
Theatre Studies 2 (NHS only)	Honors Chamber Singers	Honors Chamber Singers	Honors Chamber Singers
	Intro. to Music Theory (BMHS) Music Theory (NHS)	Intro. to Music Theory (BMHS) Music Theory (NHS)	Intro. to Music Theory (BMHS) Music Theory (NHS)
	Honors Intermediate Music Theory (BMHS Only)	Honors Intermediate Music Theory (BMHS Only)	Honors Intermediate Music Theory (BMHS Only)
	AP Music Theory	AP Music Theory	AP Music Theory
	IB Music SL 1 (BMHS only)	IB Music SL 1 (BMHS only)	IB Music SL 1 (BMHS only)
	Theatre Studies 1 (NHS only)	IB Music SL 2 (BMHS only)	IB Music SL 2 (BMHS only)
	Theatre Studies 2 (NHS only)	Theatre Studies 1 (NHS only)	Theatre Studies 1 (NHS only)
	Honors Musical Theatre Performance (NHS only)	Theatre Studies 2 (NHS only)	Theatre Studies 2 (NHS only)
	Color Guard	Honors Musical Theatre Performance (NHS only)	Honors Musical Theatre Performance (NHS only)
	Winter Guard	Color Guard	Color Guard
	Winter Percussion Ensemble	Winter Guard	Winter Guard
	Jazz Ensemble	Winter Percussion Ensemble	Winter Percussion Ensemble
		Jazz Ensemble	Jazz Ensemble

<b>AR8851GAE</b>	<b>Beginning Choir</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

Choir is a mixed group of students who are interested but inexperienced in singing, both in performing groups and as a soloist. It is designed for students with a desire to learn the fundamentals of voice production and to improve their natural voice abilities. There should be a demonstrated desire to learn basic music reading. Through the use of voice drills and the singing of solo and ensemble repertoire, students develop an awareness of the voice as an expressive and resonant instrument. Through this group, students can attain the necessary experience for singing in other auditioned choral ensembles. Areas of study include: basic music theory, music reading skills, voice production, and musical interpretation. A variety of music literature is studied, both sacred and secular. Choir members are required to participate in all scheduled school and community performances. **Teacher recommendation required.**

<b>AR8852GAE</b>	<b>Advanced Choir</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

Advanced choir is group of experienced singers who have participated in other performing organizations including choir, band or orchestra. Areas of study are: basic music theory, voice production, solo and ensemble singing, and artistic interpretation. A variety of music literature is studied, including sacred and secular compositions from the master works to contemporary.

Advanced choir members are required to participate in all activities that include: school assemblies, public concerts, contests, CMEA events, and exchange concerts. **Prerequisite: Choir and Audition**

<b>AR8862HAE</b>	<b>Honors Chamber Singers</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is a serious study of artistic music for the select chorus musician. Music will be selected by the instructor for its aesthetic content, historical importance and variety of style. Whenever possible, the pieces will be performed in original content with regard to language and accompaniment. This group is a performance-oriented organization and the students are required to participate in all school, community, and county performances. **Prerequisite: Audition**

<b>AR8863GAE</b>	<b>Choral Ensemble</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

Special Ensemble will be comprised of experienced singers who have previously performed in music ensembles such as choir, advanced choir, chamber singers, band or orchestra. Students will be selected through an audition-based criterion. This is a performance-based organization; therefore, students are required to participate in all designated school, community and county performances, as well as after school rehearsals. **Prerequisite: Audition**

<b>AR8898GAE</b>	<b>Introduction to Music Theory</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>BMHS ONLY</b>			
<b>*[Graduation Requirement: Fine Art]</b>			

This course is designed for students who have an interest in learning the basics of music fundamentals. Students will learn to read, write, listen to, analyze and describe music as professional musicians do. Prior experience in music is beneficial, but NOT required. Completion of this course will prepare students for success in Honors Intermediate Music Theory.

<b>AR8893GAE</b>	<b>Music Theory</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is designed for students who already possess the rudimentary skills necessary for reading and performing music, and who wish to deepen their understanding of notation, meter, and harmonic elements. An emphasis will be placed on ear training, dictation, scales, and listening examples from the Medieval Period until today. This course will prepare students for furthering their studies in AP Music Theory.



<b>AR8933HAE</b> <b>BMHS ONLY</b>	<b>Honors Intermediate Music Theory</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Art]</b>			

This course is a continuation of 8893 (Introduction to Music Theory) at a higher level. Students will reinforce and advance the fundamental skills developed in the introduction course, with particular emphasis placed on developing dictation and sight-singing skills. Completion of this course will prepare students for success in AP Music Theory and/or IB Music SL I.  
**Prerequisite: Completion of Introduction to Music Theory OR Instructor Approval**

<b>AR8893ACE</b>	<b>AP Music Theory</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Art]</b>			

This course is designed for students who have an interest in learning the inner workings of music. Emphasis will be placed on four-part writing with standard voice-leading techniques. Students will expand their harmonic vocabulary through composition, ear training, and analysis. This high-level, fast-paced course will prepare students for success on the AP Music Theory exam, and is strongly recommended for students considering a major or minor in music.  
**Prerequisite: BMHS Honors Intermediate Music Theory OR Instructor Approval / NHS Music Theory OR Instructor Approval**

<b>AR8871GAE</b>	<b>Prelude Orchestra</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is a continuation of middle school orchestra program at a more advanced level. The orchestra plays at special programs, in other schools in the system, and at public concerts. Emphasis is placed upon good rhythm, intonation, tone, and technique. String quartets and small ensembles are offered. Students will be required to attend weekly pull-out lessons.  
**Prerequisite: Orchestra in middle school or audition. Prerequisite: Orchestra in middle school or audition**

<b>AR8872GAE</b>	<b>Philharmonic Orchestra</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is a continuation of course 8871 (Prelude) at a more advanced level. The Philharmonic Orchestra plays at special programs, at other schools in the system, and at public concerts. Emphasis is placed upon refining tone quality, artistic interpretation of music, and application of music theory and music history to informed performance practice. String quartets and small ensembles are offered. Students are encouraged (but not required) to audition for music festivals (CMEA, NEMFA, etc.). Students will be required to attend weekly pull-out lessons.  
**Prerequisites: Completion of 8871 Prelude Orchestra and audition.**

<b>AR8873HAE</b>	<b>Honors Principal Orchestra</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is a continuation of 8871 (Prelude) at a more advanced level. The Principal Orchestra plays at special programs, at other schools in the system, and at public concerts. Emphasis is placed upon elevating all elements of performance practice to the highest level in order to create a truly artistic interpretation. String quartets and small ensembles are offered. Students in Principal Orchestra are expected to participate in the Norwalk All-City Orchestra and are encouraged (but not required) to audition for music festivals (CMEA, NEMFA, etc.). Students will be required to attend weekly pull-out lessons.  
**Prerequisites: Completion of 8871 Prelude Orchestra and audition.**

<b>AR8881GAE</b>	<b>Symphonic Band</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

Symphonic Band is the initial band instrumental course. This course will survey the basic idiomatic concepts of marching band, theatrical band, harmony and theory, classical concert band, contemporary concert band, and parade band. Within the confines of the course tone production, embouchure development, intonation, rhythmic reading and accuracy and musical expression will be stressed. Public appearances are required in the venues of marching band, symphonic band, and combined bands.

All participants are required to rehearse the two weeks prior to the commencement of school (band camp) for the purpose of advanced preparation in curricular area of marching band. Out of school practice for marching band occurs in September

through November. Students will be required to attend weekly pull-out lessons. **Prerequisite: Participation in middle school band or an audition.**

<b>AR8882GAE</b> *[Graduation Requirement: Fine Arts]	<b>Jazz Ensemble</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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Students will build upon their knowledge from their participation in pre-required courses and through the study of jazz, rock, gospel, blues and fusion idioms. Emphasis will be placed upon the performance and interpretation of various jazz styles, rhythms, harmony and theory, and improvisation. Public performances are required. **Prerequisite: Concurrent enrollment in Symphonic Band, Wind Ensemble, or Wind Symphony and an Audition.**

<b>AR8883GAE</b> *[Graduation Requirement: Fine Arts]	<b>Wind Ensemble</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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Students will have an in-depth study of marching band, theatrical band, harmony and theory, classical concert band, contemporary concert band, and parade band. Special emphasis will be placed on advanced knowledge of timbre, intonation, rhythmic reading, musical expression, sight-reading, musical interpretation, and idiomatic styles. Public appearances are required in venues of marching band, wind ensemble, and combined bands.

All participants are required to rehearse the two weeks prior to the commencement of school (band camp) for the purpose of advanced preparation in curricular area of marching band. Out of school practice for marching band occurs in September through November. Students will be required to attend weekly pull-out lessons. **Prerequisite: Participation in Symphonic Band and an Audition.**

<b>AR8895HAE</b> *[Graduation Requirement: Fine Arts]	<b>Honors Wind Symphony</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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Wind Symphony is the premiere performing organization of the band instrumental department. Instrumentation is based on one person per part except doubling in clarinet, flute, and percussion. Admission into the ensemble requires previous successful participation in Symphonic Band or Wind Ensemble and an audition.

Students will have an intensive study of marching band, theatrical band, harmony and theory, classical concert band, contemporary concert band, solo repertoire, individualized regional and state adjudication, small ensemble performances, and parade band. Knowledge of timbre, intonation, rhythmic reading, musical expression, sight-reading, musical interpretation, and stylistic understanding of idiomatic styles will be coupled with an analysis utilizing nationally accept rubrics. Public appearances are required in the venues of marching band, wind symphony, combined bands, small ensembles, and soloist.

All participants are required to rehearse two weeks prior to the commencement of school (band camp) for the purpose of advanced participation in the curricular area of marching band. Out of school practice for marching band occurs in September through November. Students will be required to attend weekly pull-out lessons. **Prerequisite: Participation in Symphonic Band/Wind Ensemble and an Audition.**

<b>AR8896GAC</b> *[Graduation Requirement: Fine Arts]	<b>Color Guard</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
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This is an intensive outdoor study of body, dance, staging, drill, saber, rifle, and flag styles. These seven styles will be assimilated into a singular performance idiom. Exploration, analysis, demonstration, and evaluation of contemporary performances styles will be examined utilizing nationally accepted rubrics. Public appearances are required in the venue of marching band.

All participants are required to rehearse the two weeks prior to the commencement of school (band camp) for the purpose of advanced preparation in the curricular area of marching band. Out of school practice with the marching band occurs in **September through November. Prerequisite: Membership in the marching band and an Audition.**

<b>AR8897GAC</b>	<b>Winter Guard</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This is an intensive indoor study of body, dance, staging, drill, saber, rifle, and flag styles to prerecorded music. These seven styles will be assimilated into a singular performance idiom. This performance idiom is referred to as winter guard. Exploration, analysis, demonstration, and evaluation of contemporary performances styles will be examined utilizing nationally accepted rubrics by Winter Guard International and Musical Arts Conference. Public appearances are required in the venue of winter guard. Out of school practices and performance occur in **January through April. Prerequisite: Membership in the marching band and an Audition.**

<b>AR8866GAC</b>	<b>Winter Percussion Ensemble</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This is an intensive study of percussion through the use of performance, instruction and evaluation. The students will be exposed to a variety of musical instruments, including but not limited to, traditional marching percussion, concert percussion, pitched and non-pitched instruments. A broad range of musical styles will be explored, including but not limited to, classical, contemporary, rudimental and theatrical. Assessments will be given based on the nationally accepted rubrics from Winter Guard International and locally through the Musical Arts Conference. Public performances are required as part of the course. **Out of school rehearsals and performances will occur from December through May. Prerequisite: Membership in the marching and concert band program or by audition to the director of bands.**

<b>BMHS ONLY</b>	<b>IB Group 6: The Arts.</b>	<b>Grades 11.12</b>	<b>1 credit per year</b>
<b>AR8895ICE</b>	<b>IB Music SLY1</b>		
<b>AR8906ICE</b>	<b>IB Music SLY2</b>		
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is designed for music students with varied backgrounds in music performance. The aim of the IB music program is to give music students the opportunity to explore and enjoy the diversity of music throughout the world by enabling them to develop their knowledge, abilities, and understanding through performance and composition. Students will demonstrate their understanding of music by performing, by using appropriate musical language and terminology in analyzing musical works from many varied cultures and periods, and by exploring music through music theory, aural skills, composition, and music history. **All IB students must take this course in conjunction with one of the large ensembles (band, choir, and orchestra).**

<b>AR8917GAE</b>	<b>Theatre Studies 1</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Fine Arts]</b>			

In this course students will be introduced to theatre vocabulary, basic acting technique, and theatre etiquette. Contributions of the playwright, actor, director, designer and producer are examined through individual and group projects and attendance and participation in theatrical performances. This course will progress through a series of introductory modules beginning with Origins of the Theatre. Students will begin with Greek, Roman and Medieval theatre and engage in oral readings and discussions as well as creative dramatic activities that help them demonstrate their understanding of plays and dramatic structure. Students will write and revise scripts based on personal experience and heritage, imagination, literature and history as they explore the foundations of playwriting. Students will apply acting and analytical skills, create characters, memorize lines and work in an ensemble on a play that is publicly presented.

<b>AR8918GAE</b>	<b>Theatre Studies 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Fine Arts]</b>			

Students will discover the history of Western theater, exploring the time period from antiquity to the Renaissance. Included will be an examination of the Italian and English Renaissance. The course includes a study of plays, historical documents, contemporary writing and a pictorial overview of theater architecture, costumes and scenic designs. Both the artistic and cultural viewpoints are examined. Students will study the historical background of the Elizabethan Era with a focus on William Shakespeare. Students will learn and experience the First Folio acting technique and how to apply it to one of

Shakespeare's plays. Students will read and analyze the work from a historical perspective in order to develop a context for understanding. Students will produce a Shakespearean class production. Rehearsals are held during class time with a focus on voice and articulation, scene study, and scene direction. Students apply acting and analytical skills, create characters, memorize lines, and work in an ensemble to produce a play for public presentation. **Prerequisite: Theatre Studies 1**

AR8919GAE

Theatre Studies 3

Grades 11, 12

1 Credit

NHS ONLY

\*[Graduation Requirement: Fine Arts]

Students will discover the history of Western theater, exploring the time period from antiquity to the Renaissance. Included will be an examination of the Italian and English Renaissance. The course includes a study of plays, historical documents, contemporary writing and a pictorial overview of theater architecture, costumes and scenic designs. Both the artistic and cultural viewpoints are examined. Students will study the historical background of the Elizabethan Era with a focus on William Shakespeare. Students will learn and experience the First Folio acting technique and how to apply it to one of Shakespeare's plays. Students will read and analyze the work from a historical perspective in order to develop a context for understanding. Students will produce a Shakespearean class production. Rehearsals are held during class time with a focus on voice and articulation, scene study, and scene direction. Students apply acting and analytical skills, create characters, memorize lines, and work in an ensemble to produce a play for public presentation. **Prerequisite: Theatre Studies 1, Theatre Studies 2**

AR8927HAE

Honors Musical Theatre Performance

Grades 10, 11, 12

1 Credit

NHS ONLY

\*[Graduation Requirement: Fine Arts]

This course is designed to immerse students into the study of musical performance including voice for the stage, which will be studied and practiced. Musical instruction and interpretation are the focus of the course. Focus will also include performance and preparation for auditions including the development of an audition portfolio and resume. Students will study musical theatre history, specifically focusing on iconic shows, scenes and performers that are representative of the developing style. Students learn by participating in a theatrical musical production, as cast and production staff. The student will be responsible for the study and style of musical theatre in greater depth through research and presentation at evening shows throughout the year. **Prerequisite: Audition**

AR8893ACE

AP Music Theory

Grades 10, 11, 12

1 Credit

\*[Graduation Requirement: Fine Arts]

This course is designed for students who have an interest in learning the inner workings of music. Emphasis will be placed on four-part writing with standard voice-leading techniques. Students will expand their harmonic vocabulary through composition, ear training, and analysis. This high-level, fast-paced course will prepare students for success on the AP Music Theory exam and is strongly recommended for students considering a major or minor in music. **Prerequisite: Music Theory or instructor approval.**

## World Languages

World Languages are organized sequentially within natural pathways on a continuous learning progress basis. Successful performance in one level is necessary before continuing to the next level to ensure and attain listening, speaking, reading, and writing proficiencies. Introductory World Language courses only will be offered with sufficient enrollment. Students in Grade 8 may earn 1 High School World Language credit for a high school level language course.

### Core World Language Sequences

9	10	11	12
Spanish 1 French 1 Italian 1 Latin 1	Spanish 2 French 2 Italian 2	Spanish 3 French 3 Italian 3	Spanish 4 French 4 Italian 4
Honors Spanish 2 Honors French 2 Honors Spanish 3 Spanish 2 French 2	Honors Spanish 3 Honors French 3 Honors Italian 2 Honors Latin 2 Honors Spanish 4 Spanish 3 French 3	Honors Spanish 4 Honors French 4 Honors Italian 3 Honors Latin 3 AP Spanish Language & Culture [NHS] Spanish 4 French 4	Spanish 5 [NHS] French 5 [NHS] Honors Italian 4 [NHS] Honors Latin 4 [NHS] AP Spanish Language AP Spanish Literature [NHS] ECE Spanish Composition [NHS] AP French Language ECE French Language & Composition AP Italian Language ECE Italian Composition & Conversation AP Latin ECE Latin [NHS]
		IB: Ab Initio Spanish Y1 [BMHS] IB: Ab Initio French Y1 [BMHS] IB: Ab Initio Italian Y1 [BMHS] IB: Lang B SL Spanish Y1 [BMHS] IB: Lang B SL French Y1 [BMHS]	IB: Ab Initio Spanish Y2 [BMHS] IB: Ab Initio French Y2 [BMHS] IB: Ab Initio Italian Y2 [BMHS] IB: Lang B SL Spanish Y2 [BMHS] IB: Lang B SL French Y2 [BMHS]
Native Spanish 1	Native Spanish 2	Native Spanish 3	Native Spanish 4 AP Spanish Language & Culture
Native Spanish 2	Native Spanish 3	Native Spanish 4 AP Spanish Language & Culture [NHS]	ECE Spanish Language Native Spanish 5 AP Spanish Literature and Culture
Honors Native Spanish 2	Honors Native Spanish 3	AP Spanish Language and Culture [NHS] IB: Lang B HL Spanish Y1 [BMHS] IB: Lang A Lang & Lit SL Spanish Y1 [BMHS]	ECE Spanish Language AP Spanish Literature & Culture Native Spanish 5 [NHS] IB: Lang B HL Spanish Y2 [BMHS] IB: Lang A Lang & Lit SL Spanish Y2 [BMHS]
Honors Native Spanish 3	AP Spanish Language & Culture	ECE Spanish Language AP Spanish Literature & Culture [NHS] IB: Lang A Lang & Lit SL Spanish Y1 [BMHS]	ECE Spanish Language AP Spanish Literature & Culture Native Spanish 5 [NHS] IB: Lang A Lang & Lit SL Spanish Y2 [BMHS] ECE Spanish Language
		IB: Lang A Lang & Lit SL Spanish Y1 [BMHS]	IB: Lang A Lang & Lit SL Spanish Y2 [BMHS]

WL4430GAE	Spanish Level 1	1 Credit
WL4411GAE	Italian Level 1	
WL4420GAE	French Level 1	
<b>[Graduation Requirement: World Language]</b>		

The beginning course will provide the student with a general introduction to the language: sound system, pronunciation, functional vocabulary related to everyday life, cultural information, and basic grammatical structures. Emphasis will be on the acquisition of four skills: listening, speaking, reading and limited writing. These skills are developed through a thematic approach that stresses themes such as sports, family, shopping, school, travel, and meals. Geography is also included. The student learning goals for this course include the ability to carry on a simple conversation and practice in correct usage of basic vocabulary and language structures to enable students to function effectively within realistic settings.

WL4432GAE	Spanish Level 2	1 Credit
WL4412GAE	Italian Level 2	
WL4422GAE	French Level 2	
<b>[Graduation Requirement: World Language]</b>		

Continuation of the beginning course deals with fundamental skills with greater emphasis on the natural use of the language in everyday situations. This course will also reinforce the skills learned in Spanish I: listening, speaking, reading and writing. Emphasis is on perfecting pronunciation, mastery of the basic grammatical structures, and increased communicative proficiency. Reading selections are used to enhance vocabulary skills. Culture is further developed. Students will complete individual projects on selected topics. **Prerequisite: Level 1.**

WL4433GAE	Spanish Level 3	1 Credit
WL4413GAE	Italian Level 3	
WL4423GAE	French Level 3	
<b>[Graduation Requirement: World Language]</b>		

The intermediate course reinforces and advances fundamental skills. Students review previous structures as well as learn more advanced structures. More emphasis is placed on developing a proficiency of expression using a variety of tenses with more expanded vocabulary and grammatical structures. Emphasis is placed on using the language in a meaningful way through continued use of paired/group activities, cooperative learning, hands on projects, presentations, discussion, games, music, and communicative activities. Cultural themes are developed. Writing becomes expository and less structured. **Prerequisite: Level 2.**

WL4435GAE	Spanish Level 4	1 Credit
WL4415GAE	Italian Level 4	
WL4425GAE	French Level 4	
<b>[Graduation Requirement: World Language]</b>		

Continuation of the intermediate course places emphasis on developing speaking skills and writing. Students review previously learned structures and more emphasis is placed on developing a proficiency of expression using a variety of tenses with more expanded vocabulary and grammatical structures. Appreciation and knowledge of the Spanish-speaking world is emphasized in a meaningful way through continued use of reading, paired/group activities, cooperative learning, hands-on projects, presentations, discussion, games, music, and communicative activities. Emphasis is placed on conversational approach using language in practical solutions. Students continue with writing assignments designed to improve proficiency to a higher level. Group conversations are frequent as well as paired work with students reacting to partner's statement. Discussion periods will be provided. Individual and/or group projects will be accomplished during the year. **Prerequisite: Level 3.**

WL4437GAE	Spanish Level 5	1 Credit
WL4427GAE	French Level 5	
<b>[Graduation Requirement: World Language]</b>		

This course entails conversation, culture, grammar, oral reporting, selected readings, and writing samples. In this course, there are higher expectations on the mastery of the linguistic skills. More extemporaneous speaking in the classroom is required. **Prerequisite: Level 4.**

<b>WL4441GCE</b>	<b>Latin 1</b>	<b>Grade 9</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

Latin I introduces the student to the language of the ancient Romans. This includes the introduction to the study of Latin grammar. Students are exposed to the functions of four out of seven noun cases, noun adjective agreement, and four of the six verb tenses in the active voice, indicative mood. Vocabulary is geared toward being able to translate and read for comprehension, simple Latin to English short stories that correspond to cultural/historical topics centered on the city of Pompeii in the 1st century C.E. In addition, the student becomes familiar with stories and legends of Rome's founding and growth and also with achievements which have become part of our heritage.

<b>WL4442GCE</b>	<b>Honors Latin 2</b>	<b>Grade 10, 11, 12</b>	<b>1 Credit</b>
<b>WL4453HAE</b>	<b>Honors Latin 3</b>		
<b>WL4454HAE</b>	<b>Honors Latin 4</b>		
<b>*[Graduation Requirement: World Language]</b>			

**Latin II**

Latin II continues the study of language structure. The final three noun cases are learned. Students are also exposed to complex Latin Grammar through five uses of the Subjunctive mood. Vocabulary is still geared toward cultural and historic topics centered on life in Roman Britain and Egypt, which gives the student the ability to read more advanced material from Latin to English. Background emphasis is on Rome's expansion from the city-state to the power of the Italian peninsula and Mediterranean area, focusing on the Punic wars, the end of the Republic and the beginning of the Empire.

**Latin III**

Latin III takes the student beyond the structural levels of Latin grammar into intensive grammar that enable students to read authentic Latin literature. The writings of Martial and other authors of the later republic and early empire are introduced. This study enables the student to compare and contrast the political and social problems of that period with the present. Historical focus is placed on the transition into Empire and the influence that Eastern half of the Empire had in transforming the Roman government.

**Latin IV**

Latin IV is continues the study of authentic Latin literature with authors such as Pliny the Younger, Catullus, Trajan, Ovid and Vergil. The historical focus is on the transition from the Julio-Claudians to the Flavians and the succeeding dynasties, touching upon major historical instances from the 2nd-5th centuries C.E.

<b>WL4416HAE</b>	<b>Honors Italian 4</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: World Language]</b>			

This course is conducted entirely in Italian. This course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. Much time is devoted to developing oral proficiency with major emphasis on reading, listening, and writing skills. Using excerpts from Italian literature along with other selected cultural and historical readings, students are expected to write original compositions using vocabulary appropriate to the materials. In this course, students continue the study of basic grammar, with a focus on listening, speaking, reading and writing at the intermediate ACTFL proficiency level.

<b>WL4429ACE</b>	<b>Advanced Placement Italian</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This college-level course provides opportunities for students to demonstrate their proficiency in the modes of communication (Interpretive, Interpersonal, and Presentational) from the Intermediate to the Pre-Advanced range. When communicating, students in the AP Italian Language and Culture course will demonstrate an understanding of the culture(s), incorporate interdisciplinary topics, make comparisons between the native language and the target language and between cultures, and use the target language in real-life settings. The AP Italian Language and Culture course is conducted exclusively in Italian. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

<b>WL4418CCE</b>	<b>UConn ECE Italian</b> <b>UConn: ILCS3239: Composition and Conversation I</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course is aligned with the University of Connecticut's course **Italian 3239 (Composition & Conversation I, 3 credits)**. Practice in written and oral composition. Syntax study. **Prerequisite: Successful completion of Honors Italian 3 and instructor approval.**

<b>WL4427GAE</b>	<b>French 5: Readings for Conversation, Culture, Composition</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: World Language]</b>			

This course is conducted entirely in French. This course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. Much time is devoted to developing oral proficiency with major emphasis on reading, listening, and writing skills. In this course, French cinema and current events from the francophone world are studied extensively. This course reviews basic grammatical structures, with a focus on listening, speaking, reading and writing at the intermediate ACTFL proficiency level.

<b>WL4429ACE</b>	<b>Advanced Placement French Language</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This college-level course provides opportunities for students to demonstrate their proficiency in the modes of communication (Interpretive, Interpersonal, and Presentational) from the Intermediate to the Pre-Advanced range. When communicating, students in the AP French Language and Culture course will demonstrate an understanding of the culture(s), incorporate interdisciplinary topics, make comparisons between the native language and the target language and between cultures, and use the target language in real-life settings. The AP French Language and Culture course is conducted exclusively in French. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

<b>WL4428CCE</b>	<b>UConn ECE French Language, Culture, Grammar, and Composition</b> <b>UConn: FREN3250: Global Culture 1; FREN3268: Grammar and Composition</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course is aligned with the University of Connecticut's courses French 3250 (Global Culture I, 3 credits) and French 3268 (Grammar and Composition, 3 credits). The course offers an examination of oral techniques of communication in conjunction with weekly topics of conversation associated with various French and Francophone cultures. This class engages in rigorous and active oral practice through dialogues, interviews, round tables, and oral reports. Students engage in the advanced study of French texts and extensive written practice in a variety of forms ranging from compositions, essays, summaries, and film reviews. Successful completion of Honors French 4 and instructor consent is required.

<b>WL4437GAE</b>	<b>Spanish 5: Readings for Advanced Conversation, Culture, Composition</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: World Language]</b>			

This course is conducted entirely in Spanish. This course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. Much time is devoted to developing oral proficiency with major emphasis on reading, listening, and writing skills. In this course, Spanish and Latin American cinema and current events from the Hispanic world are studied extensively. This course reviews basic grammatical structures, with a focus on listening, speaking, reading and writing at the intermediate ACTFL proficiency level.



<b>WL4439ACE</b>	<b>Advanced Placement Spanish Language</b>	<b>Grade 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This college-level course provides opportunities for students to demonstrate their proficiency in the modes of communication (Interpretive, Interpersonal, and Presentational) from the Intermediate to the Pre-Advanced range. When communicating, students in the AP Spanish Language and Culture course will demonstrate an understanding of the culture(s), incorporate interdisciplinary topics, make comparisons between the native language and the target language and between cultures, and use the target language in real-life settings. The AP Spanish Language and Culture course is conducted exclusively in Spanish. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

<b>WL4440ACE</b>	<b>Advanced Placement Spanish Literature and Culture</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: World Language]</b>			

The AP Spanish Literature and Culture course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students develop proficiencies across the full range of communication modes (interpersonal, presentational, and interpretive), thereby honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, literary criticism). Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

<b>WL4438CCE</b>	<b>UCONN ECE Spanish Composition and Conversation: Cultural Topic</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>UCONN: SPAN 3178, SPAN 3179</b>			
<b>*[Graduation Requirement: World Language]</b>			

This course is aligned with the University of Connecticut's courses Spanish 3178 (Intermediate Spanish Composition, 3 credits) and Spanish 3179 (Spanish Conversation: Cultural Topics, 3 credits). The course provides a thorough review of grammar and methodical practice in composition leading to command of practical idioms and vocabulary. It also develops speaking skills through cultural readings, group discussions, and oral presentations on selected topics concerning the Spanish-speaking world. **Prerequisite: Successful completion of Honors Spanish 4 and instructor approval.**

<b>WL4450CCE</b>	<b>UCONN ECE Spanish Composition, Reading, and Conversation: Cultural Topics</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>UCONN: SPAN3177, SPAN 3179</b>			

This course is aligned with the University of Connecticut's courses Spanish 3177 (Composition & Reading for Spanish Speakers, 3 credits) and Spanish 3179 (Spanish Conversation: Cultural Topics, 3 credits). The course entails grammar, written composition, and readings for speakers of Spanish with little or no formal training. Emphasis is on Puerto Rican literature. It also develops speaking skills through cultural readings, group discussions, and oral presentations on selected topics concerning the Spanish-speaking world.

<b>WL4557GAE</b>	<b>American Sign Language 1</b>	<b>Grades 10, 11, 12</b>	<b>1 credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This full-year course emphasizes fundamental skills that are developed through a thematic approach. Students will learn functional signs in order to share basic information and engage in interpersonal dialogue. Authentic learning will take place within a real-world context through units of study on topics such as sports, family, shopping, school and meals. At the same time, students will gain access to the rich cultural heritage of the American Deaf community.

<b>WL4451GAE</b> <b>NHS ONLY</b>	<b>English Language Power through Latin</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

The focus is on Latin as the source for more than half the words found in English. Special attention will be given to Latin expressions in current use and to significant cultural achievements of the ancient world. Students will be expected to complete assignments in English composition as well as in Latin translation. Students who have passed Latin I are not eligible for this course.

<b>BMHS ONLY</b>	<b>IB Group 2: Language B</b>	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
<b>WL4521ICE</b>	<b>IB Spanish HL Y1</b>		
<b>WL4538ICE</b>	<b>IB Spanish HL Y2</b>		
<b>*[Graduation Requirement: World Language]</b>			

This course represents a two-year sequence of upper level Spanish studies. The main purpose of this course is to perfect the students' skills in reading, writing, listening and speaking the target language and to use those skills in interpersonal, presentational, and interpretative modes. Students will also be developing a strong understanding of the similarities and difference their own culture and the cultures studies. The areas of studies will include: 1) identities, 2) experiences, 3) human ingenuity, 4) social organizations, and 5) sharing the planet. Students will also develop meta-linguistic awareness of how the use of the target language impacts the message being communicated. Finally, students will critically analyze and relate learning from other facets of their IB education to the content of this course. As part of this course students will discuss and write about selected literary works. The HL course differs from the SL course in that performance expectations are higher than those for the SL courses and the addition of two cultural works of fiction in the course.

<b>BMHS ONLY</b>	<b>IB Group 2: Language B</b>	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
<b>WL4522ICE</b>	<b>IB Spanish SL Y1</b>		
<b>WL4539ICE</b>	<b>IB Spanish SL Y2</b>		
<b>*[Graduation Requirement: World Language]</b>			

This course represents a two-year sequence of upper level Spanish studies. The main purpose of this course is to perfect the students' skills in reading, writing, listening and speaking the target language and to use those skills in interpersonal, presentational, and interpretative modes. Students will also be developing a strong understanding of the similarities and difference their own culture and the cultures studies. The areas of studies will include: 1) identities, 2) experiences, 3) human ingenuity, 4) social organizations, and 5) sharing the planet. Students will also develop meta-linguistic awareness of how the use of the target language impacts the message being communicated. Finally, students will critically analyze and relate learning from other facets of their IB education to the content of this course.

<b>BMHS ONLY</b>	<b>IB Group 2: Language B</b>	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
<b>WL4523ICEIB</b>	<b>Spanish ab initio Y1</b>		
<b>WL4540ICEIB</b>	<b>Spanish ab initio Y2</b>		
<b>*[Graduation Requirement: World Language]</b>			

The Ab Initio Spanish course will be offered as a two-year course for students with little experience in Spanish. This course deals with 5 themes: 1) identities, 2) experiences, 3) human ingenuity, 4) social organizations, and 5) sharing the planet. Students are exposed to a variety of authentic texts as they explore these themes and develop receptive, productive, and interactive abilities in Spanish. The course also emphasizes the study and understanding of the cultures of the Spanish speaking world. Summative assessments towards the end of the two years include internal testing of students' speaking and listening skills through genuine conversations and external testing of writing and reading comprehension skills through authentic print texts and short written exercises.

<b>BMHS ONLY</b>	<b>IB Group 2: Language B</b>	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
<b>WL4524ICE</b>	<b>IB French SL Y1</b>		
<b>WL4541ICE</b>	<b>B French SL Y2</b>		
<b>*[Graduation Requirement: World Language]</b>			

This course represents a two-year sequence of upper level French studies. The main purpose of this course is to perfect the students' skills in reading, writing, listening and speaking the target language and to use those skills in interpersonal, presentational, and interpretative modes. Students will also be developing a strong understanding of the similarities and differences between their own culture and the cultures studied. The areas of studies will include 1) identities, 2)

experiences, 3) human ingenuity, 4) social organizations, and 5) sharing the planet. Students will also develop metalinguistic awareness of how the use of the target language impacts the message being communicated. Finally, students will critically analyze and relate learning from other facets of their IB education to the content of this course.

<b>BMHS ONLY</b>	<b>IB Group 2: Language B</b>		
<b>WL4542ICE</b>	<b>IB French ab initio Y1</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>WL4543ICE</b>	<b>IB French ab initio Y2</b>		
<b>*[Graduation Requirement: World Language]</b>			

The ab initio French course will be offered as a two-year course for students with little experience in French. This course deals with 5 themes: 1) identities, 2) experiences, 3) human ingenuity, 4) social organizations, and 5) sharing the planet. Students are exposed to a variety of authentic texts as they explore these themes and develop receptive, productive, and interactive abilities in French. The course also emphasizes the study and understanding of the cultures of the Frenchspeaking world. Summative assessments towards the end of the two years include internal testing of students' speaking and listening skills through genuine conversations and external testing of writing and reading comprehension skills through authentic print texts and short written exercises.

<b>BMHS ONLY</b>	<b>IB Group 2: Language B</b>		
<b>WL4544ICE</b>	<b>IB Italian ab initio Y1</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>WL4545ICE</b>	<b>IB Italian ab initio Y2</b>		
<b>*[Graduation Requirement: World Language]</b>			

The ab initio Italian course will be offered as a two-year course for students with little or no experience in Italian. This course deals with 3 themes: 1) individuals and society, 2) leisure and work, and 3) urban and rural environment. Students are exposed to a variety of authentic texts as they explore these themes and develop receptive, productive, and interactive abilities in Italian. The course also emphasizes the study and understanding of the cultures of the Italian-speaking world. Summative assessments towards the end of the two years include internal testing of students' speaking and listening skills through genuine conversations and external testing of writing and reading comprehension skills through authentic print texts and short written exercises.

<b>WL4447ACE</b>	<b>Advanced Placement Latin</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

The Vergil and Caesar Course – This course will focus on the reading and interpretation of Vergil's Aeneid and Caesar's Gallic Wars. Topics covered will also include meter, figures of speech, Roman culture, Roman views on other cultures, and the idea of Empire. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.**

<b>WL4448CCE</b>	<b>UConn ECE Latin</b>	<b>Grade 12</b>	<b>1 Credit</b>
	<b>UConn: CAMS 1122, 1123, 1124</b>		
<b>*[Graduation Requirement: World Language]</b>			

This course is aligned with the University of Connecticut's course Classics and Mediterranean Studies 3102 (Topics in Advanced Latin, 3 credits). The Virgil and Caesar Course – This course will focus on the reading and interpretation of Vergil's Aeneid and Caesar's Gallic Wars. Topics covered will also include meter, figures of speech, Roman culture, Roman views on other cultures, and the idea of Empire. **Prerequisite: Successful completion of Honors Latin 3 and instructor approval.**

#### **Native Language Spanish Course Sequence**

<b>WL4530GAE</b>	<b>Native Language Spanish 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course is for students who are fluent speaking Spanish but have basic skills in reading and writing and require support in those areas. Students will build on their competency in speaking, writing and reading their native language. To further enhance their understanding of the culture, special activities are developed.

<b>WL4531GAE</b>	<b>Native Language Spanish 2</b>	<b>Grades , 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: World Language]**

This course is designed to further develop the students' basic four literacy skills: Reading, Listening, Speaking, and Writing. This course aims to strengthen students' ability to communicate orally and in writing through an intensive grammar review, vocabulary building, spelling and punctuation rules of the Spanish Language. At the end of the course, students present small research projects on different aspects and issues related to the linguistic and cultural variation of the Hispanic World.

<b>WL4532GAE</b>	<b>Native Language Spanish 3</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: World Language]**

This course is designed to expand the students' knowledge of Spanish through readings, written essays, and oral presentations. This course aims to strengthen students' ability to communicate orally and in writing through an intensive grammar review, vocabulary building, spelling and punctuation rules of the Spanish Language. At the end of the course, students present small research projects on different aspects and issues related to the linguistic and cultural variation of the Hispanic World.

<b>WL4533GAE</b>	<b>Native Language Spanish 4</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: World Language]**

This course is designed to focus on the development of techniques for written and oral formal public presentations in a variety of contexts and themes: organizing and presenting information for clear and successful presentations in Spanish. This course aims to strengthen students' ability to communicate orally and in writing through an intensive grammar review, vocabulary building, spelling and punctuation rules of the Spanish Language. At the end of the course, students present small research projects on different aspects and issues related to the linguistic and cultural variation of the Hispanic World.

<b>WL4534GAE</b>	<b>Native Language Spanish 5</b>	<b>Grades , 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: World Language]**

This course is designed to identify and expand students' compositional skills through the study of Peninsular and Latin-American film. This course aims to strengthen students' ability to communicate orally and in writing through an intensive grammar review, vocabulary building, spelling and punctuation rules of the Spanish Language. At the end of the course, students present small research projects on different aspects and issues related to the linguistic and cultural variation of the Hispanic World.

**STEM:**

***Math***

***Computer Science & Technology Information  
Science***

***PLTW Engineering***

***The McMahon Healthcare Academy***

***The Marine Science Academy at BMHS***

## Mathematics

All high school students must earn an amount of four (4) math credits in order to graduate high school. Upon transitioning to 9th grade, a student may have earned one high school math credit after successfully completing the High School course in middle school.

Norwalk Public Schools provides a variety of courses in mathematics. There are courses that require prerequisite skills and mastery in order to advance. Refer to the course descriptions for prerequisite requirements prior to creating your schedule.

Honors mathematics courses are available to students in all grade levels. We offer honors level courses in Geometry, Algebra 2, and Precalculus. In addition, we offer Advanced Placement courses in calculus, Statistics, and Computer Science. In addition, there are several one semester courses offered to juniors and seniors. Any prerequisites are listed in the course descriptions. \*Subject offerings can also be found within the Multilingual Learner (MLL) section of this book.

### Possible Math Course Sequences:

9	10	11	12
Intensified Algebra 1 (includes Intervention)	Integrated Algebra & Geometry	Algebra 2	Statistics
Algebra 1	Intermediate Algebra	Algebra 2 Applied Geometry	Computer Science 1 Topics in Algebraic Reasoning
Algebra 1	Algebra 2	Applied Geometry (Semester) Probability & Statistics (Semester)	SAT Prep (Semester) Advanced Algebra (Semester)
Algebra 1 Algebra 2	Algebra 2 Geometry	Precalculus IB Math Year 1 (BMHS) Precalculus	Calculus 1 IB Math Year 2 (BMHS) Calculus 1
Algebra 2 Honors	Honors Geometry	Honors Precalculus	AP Calculus

<b>MA1112GAG</b>	<b>Intensified Algebra 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>2 Credits</b>
<b>*[Graduation Requirement: 1 Math Credit and 1 STEM Related Course]</b>			

In this course students will examine real world problems using tables, graphs, and equations. Topics include number patterns, linear equations, proportions and percent, positive and negative numbers, writing formulas, slopes and intercepts, data analysis, systems of linear equations, common laws of exponents and probability and statistics. Successful completion gives the student one credit in mathematics and one credit for a math related course. **The one additional math related credit or STEM credit does not fulfill graduation credit in mathematics.**

<b>MA1121GAE</b>	<b>Algebra 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit]</b>			

This course will cover many of the same topics as Intensified Algebra 1 but will cover them in more depth. In addition, students will engage in an extensive study of systems of linear equations as well as an introductory study of quadratic equations and expressions.

<b>MA1128GAE5</b>	<b>Integrated Algebra and Geometry</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			

This course is designed with two goals. First, it develops confident knowledge of the fundamentals of algebra and geometry, material that is at the core of the study of high level mathematics. Second, it cultivates the essential skills and habits required to make use of mathematics, including the ability to approach challenging problems and to communicate mathematical ideas clearly. The mathematical content of the course includes more advanced applications of material from

Algebra I, as well as material drawn from the traditional content of Geometry and some Algebra II. Topics are woven throughout the course to build a deeper understanding. **Prerequisite: Algebra 1 or Intensified Algebra**

<b>MA1124GAE</b>	<b>Intermediate Algebra</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit]</b>			

This course is designed to better prepare students to succeed in Algebra 2. It includes a review of both Algebra 1 and Geometry concepts and skills, and is a successful pathway to Algebra 2 topics such as: real number systems, exponents and polynomials, equations, and inequalities, factoring, rational expressions, radicals, quadratic equations, functions. Students will also be exposed to PSAT/SAT preparation and college placement exams like the AccuPlacer. **Prerequisite: Intensified Algebra 1 or Algebra 1. May be taken concurrently with Geometry.**

<b>MA1131GAE</b>	<b>Geometry</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit]</b>			

This course is fully aligned to the new Connecticut Core Standards. Topics include: Transformations and the Coordinate Plane; Congruence, Proof and Constructions; Polygons; Similarity, Proof, and Trigonometry; Circles, and other Conic Sections; Extensions to Three Dimensions; and Applications of Probability. **Algebra 2**

<b>MA1133HAE</b>	<b>Honors Geometry</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit]</b>			

Honors geometry includes the study of assumptions, definitions, theorems, deductive and inductive reasoning, proofs, loci, topology and non-Euclidean. Emphasis will be placed on developing a greater understanding of the logic inherent in the structure of geometry. **Algebra 2**

<b>MA1130GAC3</b>	<b>Applied Geometry</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
<b>*[Graduation Requirement: Math Credit]</b>			

This half-year course in Geometry provides students with an in-depth learning experience where they will need to apply their knowledge of numerous fundamental geometry concepts. The concepts are based on the major areas of work found on the SAT. These topics include but are not limited to circles, right angle trigonometry, coordinate geometry, complex numbers, area and volume. Students will be able to understand the key concepts and skills necessary to be successful with SAT scenarios with and without the calculator. **Prerequisite: Algebra 2**

<b>MA1122GAE</b>	<b>Algebra 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			

The major theme of this course is functions. The concept of functionality will be developed fully, and course includes a study of linear, quadratic, exponential, and polynomial. Also included in this course is content with probability and statistics. **Prerequisite: Intensified Algebra 1 or Algebra 1. May be taken concurrently with Geometry.**

<b>MA1129HAE</b>	<b>Honors Algebra 2</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			

The operations of the complex number system, linear, polynomial, quadratic, cubic, and quartic equations, logarithms and exponents, permutations, combinations, probability, coordinate geometry, conic sections and sequences and series, will be included in the course. **Prerequisite: Intensified Algebra 1 or Algebra 1**

<b>MA1117GAE3</b>	<b>Topics in Algebraic Reasoning</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			

This inquiry-focused course is built around a compacted 5E instructional model, whereby students Engage in hands-on activities to help students activate prior knowledge and Explore a series of investigations to look for patterns and make conjectures. The hands-on learning approach guides students to use the learning from multiple activities so that they can Explain their reasoning in a formalized way. **Prerequisite: Algebra 2**

<b>MA1144GAC5</b> NHS ONLY	<b>Advanced Algebra</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			
This course will consist of the study of the real number system, solving linear and quadratic equations with numerous applications, natural and common logarithms, sequences and series, and exponential functions with applications. <b>Prerequisite: Algebra 2</b>			
<b>MA1123GAE</b>	<b>Precalculus</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			
This course will expand the student's knowledge of functions. Polynomial, exponential, logarithmic, and trigonometric functions and their applications will be studied in depth. Also included are other topics in trigonometry, sequences and series, probability and some analytic geometry. <b>Prerequisite: Algebra 2.</b>			
<b>MA1139HAE</b>	<b>Honors Precalculus</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			
All of the topics of Precalculus will be covered, with a more theoretical emphasis. In addition, the student will study rational functions, polar and parametric equations, and vectors. <b>Prerequisite: Algebra 2</b>			
<b>MA1141ACE</b>	<b>Advanced Placement Statistics</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			
This full year course is designed to provide the student with a college level course in statistics. Students will learn how to collect data in a meaningful way, analyze data using a variety of statistical measures, explore phenomena using probability and simulation, and select appropriate models using statistical inference. Technology such as the computer and the graphing calculator will be thoroughly integrated into the study of statistical concepts. <u>Students are expected to take the Advanced Placement exam.</u> <b>Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. Prerequisite: Algebra 2.</b>			
<b>MA1142GAC</b>	<b>Probability and Statistics</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			
Probability is studied intuitively and formally. Topics include permutations and selections, mathematical induction, frequency distributions and measure of central tendency, binomial distribution with applications to hypothesis testing infinite population sampling. <b>Prerequisite: It is recommended that students take Algebra 2 prior to taking Probability and Statistics.</b>			
<b>MA1140GAE</b>	<b>Statistics</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			
Probability and statistics is recommended for those who want a related credit that will be beneficial to many academic, medical, social, and business careers. Statistics topics studied include describing data with graphs, distributions, histograms, and other graphical techniques. Students will also use statistical measures of center and spread to analyze data and graphical displays. Probability topics include: probability rules, probability distributions-discrete, binomial, Poisson, and normal distributions. Other topics studied are sampling design, sampling distributions, hypothesis testing and confidence intervals for one mean and one proportion samples using z-tests and t-tests. <b>Prerequisite: It is recommended that students take Algebra 2 prior to taking Statistics.</b>			
<b>MA1148GAE</b>	<b>Calculus 1</b>	<b>Grade 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			
Calculus 1 is designed for students who have taken Precalculus, but who are not ready for Calculus at the AP Level. This course would offer students, especially seniors, a fourth year of math and give them extra time (beyond/after the AP exam) to learn most of the Calculus concepts that are taught in AP Calculus. In addition to skills remediation, topics would include limits, derivatives, applications of the derivatives, anti-derivatives, and integrations. <b>Prerequisite: Precalculus.</b>			



<b>MA1150ACE</b>	<b>Advanced Placement Calculus AB</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; STEM Related Course]</b>			

All topics in the College Entrance Examination Board's AP Calculus syllabus will be thoroughly studied. Topics include limits, the derivative (theory and applications), techniques of differentiation, indefinite and definite integrals, and techniques and application of integration. The graphing calculator is thoroughly integrated throughout the course. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. Prerequisite: Precalculus.**

<b>BMHS ONLY</b>			
<b>MA1151ACE</b>	<b>Advanced Placement Calculus BC</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Related Course; STEM Related Course]</b>			

This course is designed to supply an extra semester of study in conjunction with AP Calculus AB. Topics studied include parametric, polar, and vector functions (including their derivatives), analysis of plane curves given in parametric, polar, and vector form, numerical solution of differential equations, applications of the definite integral, advanced techniques of anti-differentiation, improper integrals, logistical differential equations, and a comprehensive study of polynomial approximations and series. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. Prerequisite: Precalculus.**

<b>MA1155GAE</b>	<b>Mathematics for College Success</b>	<b>Grade 12</b>	<b>1 Credit (NHS)</b>
<b>MA1155GAC</b>			<b>0.5 Credit (BMHS)</b>
<b>*[Graduation Requirement: Math Related Course; STEM Related Course]</b>			

This course focuses on developing the mastery of skills identified as critical to postsecondary readiness in mathematics. Course topics include a review of algebra concepts; functions and sequences; systems of equations; polynomials; factoring quadratic expressions; rational expressions; and data analysis. Components will also prepare students to be successful on the *Accuplacer*.

<b>MA1167GAC</b>	<b>Logic</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>BMHS ONLY</b>			
<b>*[Graduation Requirement: Math Related Course; STEM Related Course]</b>			

This course covers the fundamental principles of reasoning and argument in ordinary language. These include how to distinguish reasoning from other forms of persuasion, recognize the uses and abuses of language in the expression of ideas, extract arguments from texts, clarify the internal structure of arguments, evaluate the acceptability of premises, distinguish among forms of reasoning (statistical, casual, analogical, ethical, explanatory etc.), and identify common patterns of error in reasoning. Students will also be introduced to formal logic. By the end of the course students should have the greater ability to evaluate reasoning, to support their own positions, and to think their way through difficult issues. **Prerequisite: Algebra 2**

<b>AD0080GAC</b>	<b>SAT Prep (EBRW and Math)</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This semester-length (NHS) class intends to prepare students for the *evidenced-based reading, writing, and math* segments of the SAT. Teachers will provide students with activities in analytical thinking and with the skills and strategies associated with the evidence-based reading and writing section and the math section of the redesigned SAT. Topics covered include developing a study plan, vocabulary, sentence completion strategies, reading comprehension, and essay-writing strategies, as well as time management, scoring procedures, and strategies for managing test anxiety. Course materials may include SAT review materials, current assessment software programs, and previous standardized examinations. This course does not fulfill the graduation credit in English or mathematics.

**IB Group 5: Math BMHS ONLY**

MA1186ICE	IB Math: Applications and Interpretations SL Y1	Grades 11, 12	1 credit per year
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MA1187ICE	IB Math: Applications and Interpretations SL Y2		
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**\*[Graduation Requirement: Math Core; Math Elective; STEM Elective]**

Application and Interpretation SL is a two-year Mathematical sequence course that focuses on a vast array of mathematical concepts including algebra, function modeling using technology, probability and statistics, geometry, trigonometry, and calculus. Students will approach problems through application and using technology to advance understandings of each topic. Students will need to have knowledge of basic mathematical concepts and be knowledgeable enough to apply mathematical concepts. Over the course of two-year students will be exposed to international mindedness, Theory of Knowledge (TOK – as it relates to mathematics), and be required to complete an Internal Assessment (math exploration of their choosing), and IB Math External Exams (Paper 1 and Paper 2 in May of Y2). All of this focuses on how well can students apply the knowledge they have acquired throughout the course. Aligning with the IB Syllabus, a TI-84 graphing calculator is an essential tool for this course. **Prerequisite: Algebra 2.**

MA1190ICE	IB Math: Analysis and Approaches HL Y1	Grades 11, 12	1 credit per year
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MA1191ICE	IB Math: Analysis and Approaches HL Y2		
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**\*[Graduation Requirement: Math Core; Math Elective; STEM Elective]**

Mathematics HL is a two-year course covering many topics. During year one students will learn probability and statistics, algebra, functions, circle functions, trigonometry, and vectors. At the end of year one students will complete an internal assessment (math exploration of their choosing). Year two gives an in-depth look into calculus (equivalent to AP Calculus BC). Students will develop the attributes helpful to an internationally minded individual seeking to create a better and more peaceful world, with a focus on problem solving and mathematical inquiry. Students are expected to have a TI-84 graphing calculator at all times. The course will culminate with an external assessment consisting of three parts. **Prerequisite: At least an A- in Honors Algebra 2.**

MA1188ICE	IB Math: Analysis and Approaches SL Y1	Grades 11, 12	1 credit per year
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MA1189ICE	IB Math: Analysis and Approaches SL Y2		
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**\*[Graduation Requirement: Math Core; Math Elective; STEM Elective]**

The IB DP Mathematics: Analysis and Approaches course is a two-year course and is intended for students who wish to pursue studies in mathematics at university of subjects that have a large mathematical content; it is for students who enjoy developing mathematical arguments, problem solving and exploring real and abstract applications, with and without technology. Topics include Algebra, Geometry, Trigonometry, Statistics, Probability, and Calculus. At the end of year one, students will start their internal assessment (math exploration of their choosing) which offers the students the opportunity to develop independence in their mathematical learning. Students are expected to have a TI-84 graphing calculator at all times. **Prerequisite: B- or better in Algebra 2.**

## Computer Science and Technology Information

Computer Science and Technology Information transcends throughout the Math and Business departments in Norwalk. In addition to fulfilling the STEM graduation requirements, students will apply computer related classes into daily activities and future employment. The technology information courses lead to careers such as programmers, software engineers or IT professionals while the computer science pathway leads the way for careers in information security, network architecture, database and systems support.

9	10	11	12
Computer Applications	Advanced Computer Applications Web Page Design Video Game Design		
	CompTIA IT Fundamentals (BMHS) CompTIA Core1 (BMHS) Computer Construction and Repair (NHS)	CompTIA Core 2(BMHS)	IT Internship (BMHS)
Honors Computer Science Essentials PLTW (BMHS)	Honors Computer Science Principals PLTW (BMHS)	Honors Computer Science Principals PLTW (BMHS)	Honors PLTW Cybersecurity (BMHS)
Computer Science 1	Computer Science 1 Computer Science 2 Computational Logic	Computer Science 1 Computer Science 2 Computational Logic	Computer Science 1 Computer Science 2 Computational Logic
AP Computer Science Principals (NHS)	AP Computer Science Principals (NHS)	AP Computer Science A	AP Computer Science A

<b>AR5502GAC</b>	<b>Computer Applications</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM Related Course; Digital Literacy]</b>			

This course is essential to each student's development of technological skills and abilities which are needed at both the high school and college level, as well entry level employment.

Instruction will focus on:

1. Microsoft Word/Docs for word processing - students will create and edit an MLA report, resume, and personal business letters.
2. Microsoft Excel/Sheets for spreadsheets - students will create a worksheet to organize data, visually present data using embedded charts and graphs, and learn to use formulas and functions.
3. Microsoft PowerPoint/Slides for presentations - students will research, create and deliver a presentation with illustrations and shapes on a topic of their choice.
4. Microsoft Publisher - students will learn how to navigate to create cards, flyers, and brochures.
5. Email - students will learn email etiquette and how to write both a formal and informal email with attachments.

**\*This course fulfills the digital literacy requirement.**

<b>AR5533GAC</b>	<b>Advanced Computer Applications</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM Related Course; Digital Literacy]</b>			

This course provides a more in-depth development of student's technical skills and abilities.

Instruction will focus on:

1. Cloud computing - specifically effective usage of Google applications.
2. Electronic Microsoft Excel/Sheets - students will research, organize, and analyze data, as well as visually present data using charts and graphs. Students will also learn how to analyze data using pivot tables and functions.
3. Microsoft Access/Drive students will design and create a relational database to meet the specific data needs and reporting for a small company.
4. Microsoft Publisher/Slides; students will learn how to create and publish a professional brochure, personal and professional business cards, and posters.

**Prerequisite: Computer Applications. \*This course fulfills the digital literacy requirement.**

<b>AR5514GAC</b>	<b>Web Page Design</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
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**\*[Graduation Requirement: STEM Related Course; Digital Literacy]**

In this course students will build and maintain business entrepreneurial World Wide Web sites utilizing HTML, and other web site development software. Instruction will encompass a variety of business web site design issues. Recent developments and business applications concerning the Wide World Web will also be learned. Students will learn to develop websites to market business enterprises and products and how to communicate with customers via the Internet. It is important that students are proficient in English as coding requires it. **\*This course fulfills the digital literacy requirement.**

<b>AR5515GAC</b>	<b>Video Game Design</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
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**\*[Graduation Requirement: STEM Related Course Digital Literacy]**

This STEM course will introduce students to the world of video game design and development, learning all aspects of the creative, business, and technological components. Students will examine history, structure, and strategy of game development. Overall creation of the computerized video game will include storytelling, characters, game play, levels, and audio content. Participants will learn key programming constructs using GameMaker software. By the end of the course, students will have created a computerized video game. This course is an introductory-level course that does not require a background in computer programming. It is important that students are proficient in English as coding requires it. **\*This course fulfills the digital literacy requirement.**

<b>AR5538GAE</b> <b>NHS ONLY</b>	<b>Computer Construction and Repair</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: STEM Related Course; Digital Literacy]**

This course is interactive and provides students with the knowledge of opportunity to assemble a multimedia computer. An overview of available career and certification options will be provided through a heavy emphasis on technical readings and practice exams. Topics covered will include the different types of operating systems, motherboards, CPUs, power supplies, expansion cards, and memory. Students will also research current industry standards for computer construction as older components are updated or become obsolete. **Recommended: Computer Applications.** **\*This course fulfills the digital literacy requirement.**

<b>AR5518GAC3</b> <b>BMHS ONLY</b>	<b>CompTIA IT Fundamentals</b>	<b>Grades 9,10, 11</b>	<b>.5 Credits</b>
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**\*[Graduation Requirement: STEM Related Course; Digital Literacy]**

CompTIA IT Fundamentals+ (ITF+) is an introduction to basic IT knowledge and skills. This course focuses on using features and functions of common operating systems and establishing network connectivity, identifying common software applications and their purpose, and using security and web browsing best practices. The course prepares students to become A+ certified.

<b>AR5519GAC3</b> <b>BMHS ONLY</b>	<b>CompTIA Core 1</b>	<b>Grades 10, 11, and 12</b>	<b>.5 Credits</b>
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**\*[Graduation Requirement: STEM Related Course; Digital Literacy]**

CompTIA Core 1 builds on the skills learned in CompTIA IT Essentials and prepares students for the A+ Core 1 exam. Objectives in the course include the following: hardware, networking, mobile devices, hardware & networking troubleshooting.

<b>AR5520GAC3</b> <b>BMHS ONLY</b>	<b>CompTIA Core 2</b>	<b>Grades 11, 12</b>	<b>.5 Credits</b>
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**\*[Graduation Requirement: STEM Related Course; Digital Literacy]**

CompTIA Core 2 builds on the skills learned in CompTIA IT Essentials and prepares students for the A+ Core 2 exam. Objectives in the course include the following: windows operating systems, other operating systems & technologies, security, software troubleshooting, operational procedures.

AR5521GAC3 BMHS ONLY	IT Internship	Grades 11, 12	.5 Credits
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**\*[Graduation Requirement: STEM Related Course; Digital Literacy]**

The fourth course in the IT pathway, this culminating experience will take place either within the district or with an industry partner. Students will apply knowledge learned from IT Fundamentals, Core 1, and Core 2 in a real-world, hands-on environment. In addition, students will learn how to track progress, communicate with customers, and use a ticketing system.

#### PLTW COMPUTER SCIENCE

AR5594HAE BMHS ONLY	Honors PLTW Computer Science Essentials	Grades 9, 10	1 Credit
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

Students will experience the major topics, big ideas, and computational thinking practices used by computing professionals to solve problems and create value for others. This course will empower students to develop computational thinking skills while building confidence that prepares them to advance to Computer Science Principles and Computer Science A. **\*This course fulfills the digital literacy requirement.**

AR5595HAE BMHS ONLY	Honors PLTW Computer Science Principles	Grades 10, 11	1 Credit
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

Using Python® as a primary tool, students explore and become inspired by career paths that utilize computing, discover tools that foster creativity and collaboration, and use what they've learned to tackle challenges like app development and simulation. *This course is endorsed by the College Board, giving students the opportunity to take the AP CSP exam for college credit.* **Prerequisite: Honors PLTW Computer Science Essentials or approved comparable Computer Science course.** **\*This course fulfills the digital literacy requirement.**

AR5596HAE BMHS ONLY	Honors PLTW Computer Science A	Grades 11, 12	1 Credit
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

Students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and Web-based databases, as well as creating a game for their friends or an app to serve a real need in their community. This course is aligned to the AP CSA framework. **Prerequisite: Honors PLTW Computer Science Essentials or approved comparable Computer Science course.** **\*This course fulfills the digital literacy requirement.**

AR5597HAE BMHS ONLY	Honors PLTW Cybersecurity	Grades 11, 12	1 Credit
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

Students explore the tools and concepts of cybersecurity and create solutions that allow people to share computing resources while protecting privacy. **\*This course fulfills the digital literacy requirement.**

#### MATH DEPARTMENT COMPUTER SCIENCE

MA1164GAC	Computer Science 1	Grades 9, 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Math Related Course; STEM Related Course; Digital Literacy]**

Topics covered will allow students to study programming methodology and design data structures and algorithms. Upon completion of this course, students will have an extensive introduction to the language of Java. **\*This course fulfills the digital literacy requirement. Prerequisite: Algebra I. Recommendation: Algebra 2**

MA1165GAC	Computer Science 2	Grades 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Math Related Course; STEM Related Course; Digital Literacy]**

Topics covered will include the introduction to JAVA programming language and the use of spreadsheet and database applications. **\*This course fulfills the digital literacy requirement. Prerequisite: Algebra 2 or Computer Science 1.**

<b>MA1168ACE</b> <b>NHS ONLY</b>	<b>Advanced Placement Computer Science Principles</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Related Course; STEM Related Course; Digital Literacy]</b>			

This course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. It will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. \*This course fulfills the digital literacy requirement.**

<b>MA1169GAC</b> <b>NHS ONLY</b>	<b>Computational Logic</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Math Related Course; STEM Related Course]</b>			

Computational Logic plays an important role in many areas of computer science, including verification of hardware and software, programming languages, databases and Artificial Intelligence. This course lays the foundations for the more advanced core courses: Computer Science 2, AP Computer Science A. **Prerequisite: Algebra 2**

<b>MA1166AC</b>	<b>Advanced Placement Computer Science A</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Related Course; STEM Related Course; Digital Literacy]</b>			

The College Entrance Examination Board syllabus will be followed. JAVA language will be used. Topics covered will be object-oriented programming (OOP), features of the programming language, data types and classes, algorithms, application of computing, computer systems and social implications of computers, and a case study designated by the College Board. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. \*This course fulfills the digital literacy requirement.**

## Science

Currently, a high school student must earn three (3) credits in science to graduate. Two of those must be lab science classes are required in Biology/Life Science and Chemistry/Physical Science. In addition to the many science related courses that are available to all students, Project Lead the Way Pre-Engineering courses are available as related courses and upon successful completion, college credit can be earned. Students also have multiple Advanced Placement options in Biology, Chemistry, Physics, and Environmental Science; college credit is available in these fields by enrolling in the UConn ECE program. \*Subject offerings can also be found within the Multilingual Learner (MLL) section of this book.

### Science course sequence options:

9	10	11	12
Biology	Earth and Integrated Physical Science	Chemistry	Physics
Biology Honors with EIPS	Honors Chemistry with EIPS	Honors Physics AP Chemistry/ECE Chemistry (NHS) IB Environmental Science (BMHS) IB Biology (BMHS) IB Physics (BMHS) IB Marine Science Y1(BMHS)	AP Biology/ECE Biology (NHS) AP Environmental Science (NHS) AP Chemistry (NHS) IB Environmental Science (BMHS) IB Biology (BMHS) IB Physics (BMHS) IB Marine Science Y2 (BMHS)
<b>Pathway Related Courses</b>			
PLTW- Honors Principles of Biomedical Science	PLTW-Honors Human Body Systems	PLTW-Honors Medical Interventions	PLTW-Honors Biomedical Innovations
Introduction to Robotics Drone Engineering and Operation	Honors Principles of Engineering (PLTW)	Honors Digital Electronics (PLTW) Honors Civil Engineering and Architecture (PLTW)	Honors Aerospace Engineering (PLTW)
Honors Introduction to Engineering Design (PLTW) Honors Environmental Sustainability (PLTW) Introduction to Healthcare Science Marine Science 1	Introduction to Robotics Drone Engineering and Operation Honors Environmental Sustainability (PLTW) Honors Digital Electronics (PLTW) Honors Biotechnology Engineering (PLTW) Marine Science 2 Honors Introduction to Engineering Design (PLTW)	Honors Introduction to Engineering Design (PLTW) Honors Environmental Sustainability (PLTW) Honors Principles of Engineering (PLTW) Honors Biotechnology Engineering (PLTW) Marine Engineering and Trades	Honors Introduction to Engineering Design (PLTW) Honors Environmental Sustainability (PLTW) Honors Principles of Engineering (PLTW) Honors Digital Electronics (PLTW) Honors Biotechnology Engineering (PLTW) Honors Civil Engineering and Architecture (PLTW)
	Astronomy Genetics Marine Biology Environmental Science Meteorology Public Health and Epidemiology	Astronomy Genetics Marine Biology Environmental Science Meteorology Public Health and Epidemiology Anatomy and Physiology Honors Anatomy and Physiology (NHS) Forensics	Astronomy Genetics Marine Biology Environmental Science Meteorology Public Health and Epidemiology Anatomy and Physiology Honors Anatomy and Physiology (NHS) Forensics

SC3326GAE	Biology (Lab Science)	Grades 9, 10, 11, 12	1 Credit
*[Graduation Requirement: Biology/Life Science (Lab)]			
Emphasis of study will be placed on the biochemical, physiological, morphological, ecological, bacteriological, embryonic, nutritional, pathological and biographical natures of life. Upon completion of this course a student will have a knowledge of the principles on which all life depends, and an awareness of the interdependency of organisms in the biological world with reference to the balance of nature and conservation.			
SC3304GAE	Earth and Integrated Physical Science (Lab Science)	Grade 10, 11	1 Credit
*[Graduation Requirement: Chemistry/Physical Science; Science Related Course; STEM Related Course]			
Emphasis of study will be placed on students' understanding of the interconnections and feedbacks among the geosphere, hydrosphere, atmosphere, and anthroposphere as well as the physical aspects of motion, energy, forces, and waves and technology. Students will study climate systems and climate change, the human impacts on Earth systems and issues of human sustainability, current global and regional data sets, the systems and transfer of energy, laws of force and motion, and waves and technological applications. Students will make projections for the future, analyze space systems and research, and use engineering design concepts to evaluate future societal choices in the earth, space, and physical sciences. Upon completion of this course a student will have a knowledge of principles including but not limited to: energy futures, resource management, space exploration and structures, land use, environmental impacts, pollution regulation, and applications of motion, waves, and energy. <b>Prerequisite: Biology and/or Chemistry.</b>			
SC3340HAE	Honors Biology with EIPS (Lab Science)	Grades 9*	1 Credit
*[Graduation Requirement: Biology/Life Science (Lab)]			
Honors Biology will cover topics similar to those covered in the college prep biology class: the principles and inter-relationships of living forms with reference to the balance of nature and a realistic concern for the environment. These topics will be covered in greater depth, placing more emphasis on the self-reliance of the student. Biochemistry will be emphasized, and students will be expected to write science papers and work on science projects. <b>Strongly Recommended: grades of "A" 7<sup>th</sup> and 8<sup>th</sup> grade science and 8<sup>th</sup> Grade science teacher recommendation (based on student's interest and motivation); students taking and obtaining a grade of "B" or better in Algebra in 8<sup>th</sup> grade.</b>			
SC3330ACE	Advanced Placement Biology (Lab Science)	Grades 11, 12	1.5 Credits
NHS ONLY			
*[Graduation Requirement: STEM Related Course; Science Related Course]			
This course covers principles and concepts in cellular biology, biochemistry, anatomy, physiology, heredity and evolution. Students are expected to contribute to class through seminars, demonstrations of significant laboratory skills, preparation of scientific papers and readings of science journals. Completion of a research project is required. <u>Students are expected to take the Advanced Placement exam.</u> <b>Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. Prerequisite: Biology and Chemistry.</b>			
SC3333CCE	UConn ECE Biology (Lab Science) UConn: BIOL 1107	Grades 11, 12	1.5 Credits
*[Graduation Requirement: STEM Related Course; Science Related Course]			
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 and genetics. (BIOL 1107); Laboratory exercises in BIOL 1107 include dissection of preserved animals. <b>At NHS, UConn: BIOL 1107 is in the fall semester.</b>			



SC3337CCE NHS ONLY	UConn ECE Biology (Lab Science) UConn: BIOL 1108	Grades 11, 12	1 Credits
*[Graduation Requirement: STEM Related Course; Science Related Course]			
A course in high school level chemistry or concurrent enrollment in CHEM 1127 are recommended for students enrolling in 1108. Designed to provide a foundation for more advanced courses in Biology and related sciences, topics covered include ecology, evolution, phylogeny of organisms, and plant biology, (BIOL 1108). <b>Prerequisite: UConn: BIOL 1107</b>			
SC3391GAC NHS ONLY	Everyday Chemistry	Grades 11, 12	0.5 Credit
*[Graduation Requirement: Science Related Course; STEM Related Course]			
This course is a project-based, consumer chemistry course that will examine the chemistry behind everyday life: movie special effects, toys, foods, art, and forensic chemistry. This course takes a hands-on approach with each unit beginning with a challenge task. Students will perform experiments and investigations to meet their unit challenge. This semester related course is not a substitute for a full year lab Chemistry class.			
SC3348GAE	Chemistry (Lab Science)	Grades 10, 11, 12	1 Credit
*[Graduation Requirement: Chemistry/Physical Science (Lab)]			
This course covers the following topics: properties of materials, the transformations which matter undergoes, the conditions affecting those transformations and the nature and amount of energy released or absorbed in these changes, the uses of materials and creation of new substances. Emphasis is placed upon mathematical application to chemistry and an extensive degree of laboratory work. Recommended C or better in the prerequisite courses. <b>Prerequisite: Intensive Algebra 1 or Algebra 1 and Biology</b>			
SC3341HAE	Honors Chemistry with EIPS (Lab Science)	Grades 10, 11	1 Credit
*[Graduation Requirement: Chemistry/Physical Science (Lab)]			
This course is for students in the accelerated science sequence and provides an in-depth concentrated study of topics studied in high school chemistry. The work is rigorous and challenging and laboratory activities constitute a major part of this course's curriculum. Students are expected to work at a higher level and complete a project. <b>Prerequisite: Biology; Co-requisite: Algebra 2.</b>			
SC3350ACE	Advanced Placement Chemistry (Lab Science)	Grades 11, 12	1.5 Credits
*[Graduation Requirement: STEM Related Course; Science Credit]			
The AP Chemistry course covers topics such as the structure of matter, kinetic theory, chemical equilibrium, chemical kinetic and basic thermo-dynamics. <u>Students are expected to take the Advanced Placement exam.</u> <b>Prerequisite: Chemistry; Co-requisite: Algebra 2 or Precalculus. Course runs concurrently with UConn ECE Chemistry.</b>			
SC3351CCE	UConn ECE Chemistry (Lab Science) UConn: CHEM 1127Q	Grades 11, 12	1.5 Credits
*[Graduation Requirement: STEM Related Course; Science Related Course]			
Basic Algebra with applications, or equivalent. Designed to provide a foundation for more advanced courses in chemistry. Atomic theory; laws and theories concerning the physical and chemical behavior of gases, liquids, solids, and solutions. Properties of some of the more familiar elements and their compounds. Quantitative measurements illustrating the laws of chemical combination in the first semester lab. Equilibrium in solutions and qualitative reactions of the common cations and anions in the second semester lab. <b>Course runs concurrently with AP Chemistry.</b>			
SC3361GAE	Physics (Lab Science)	Grades 10, 11, 12	1 Credit
*[Graduation Requirement: Science Related Course; STEM Related Course]			
Physics is the study of matter and energy including an introduction to the mechanics of solids, liquids and gases, wave motion, sound, heat, magnetism, electricity, light and other concepts in modern physics. The fundamental principles and concepts of each topic are studied and applied through problem-solving and laboratory experimentation. Emphasis is placed on experience integrating physics and mathematics. <b>Prerequisites: Biology and Algebra 2 or Geometry</b>			

SC3369HAE	Honors Physics (Lab Science)	Grades 11, 12	1 Credit
* <b>[Graduation Requirement: Science Related Course; STEM Related Course]</b>			
<p>Honors Physics is an in-depth study of physics. Demands will be placed on the student to work independently in the classroom as well as the laboratory. The student will be expected to complete both long and short term outside projects and research as well as to master the use of sophisticated equipment including computers. The honors course will emphasize quantitative physics. Students will be expected to handle linear and quadratic equations and geometry with ease and trigonometry when needed. Problems involving several physical relationships will be stressed as well as derivation of physical relationships. <b>Prerequisites: Biology and Algebra 2 or Geometry; Co-requisite: Precalculus or Trigonometry</b></p>			
SC3370ACE	Advanced Placement Physics 1 (Lab Science)	Grade 11, 12	1 Credit
* <b>[Graduation Requirement: Science Related Course; STEM Related Course]</b>			
<p><b>AP Physics 1: Algebra-Based</b> is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. <u>Students are expected to take the Advanced Placement exam.</u> <b>Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. Co-requisite: Precalculus.</b></p>			
SC3371ACE	Advanced Placement Physics 2 (Lab Science)	Grade 12	1 Credit
BMHS ONLY			
* <b>[Graduation Requirement: Science Related Course; STEM Related Course]</b>			
<p><b>AP Physics 2: Algebra-Based</b> is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. <u>Students are expected to take the Advanced Placement Exam.</u> <b>Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. Prerequisite: AP Physics 1; Co-requisite: Precalculus</b></p>			
SC3372CCE	UConn ECE Physics B Part 1 (Lab Science)	Grade 12	1 Credit
BMHS ONLY			
UConn: PHYS 1201			
* <b>[Graduation Requirement: Science Related Course; STEM Related Course]</b>			
<p>Basic facts and principles of physics. The laboratory offers fundamental training in precise measurements. <b>Course runs concurrently with AP Physics part 1.</b></p>			
SC3373CCE	UConn ECE Physics B Part 2 (Lab Science)	Grade 12	1 Credit
BMHS ONLY			
UConn: PHYS 1202			
* <b>[Graduation Requirement: Science Related Course; STEM Related Course]</b>			
<p>Basic facts and principles of physics. The laboratory offers fundamental training in precise measurements. <b>Course runs concurrently with AP Physics part 2. Prerequisite: UCONN ECE Physics part 1</b></p>			
SC3383ACE	Advanced Placement Environmental Science	Grades 11, 12	1 Credit
NHS ONLY			
* <b>[Graduation Requirement: Science Related Course; STEM Related Course]</b>			
<p>This course is designed to be the equivalent of an introductory university course in environmental science. It is an incredibly interesting, complex applicable science that is constantly changing and expanding. It is a rigorous laboratory science course that stresses scientific principles, process, and analysis while also providing opportunities to explore the many social, political, economic, and ethical issues that are relevant to the environmental topics studied. <u>Students are expected to take the Advanced Placement exam.</u> <b>Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any</b></p>			

student who fails to meet the due date for summer assignments will receive a failing grade. Prerequisite: Biology and Chemistry.

SC3440GAC	Introduction to Robotics	Grades 9, 10	0.5 Credit
*[Graduation Requirement: Science Related Course; STEM Related Course]			

Robotics is a lab-based course that uses a hands-on approach to introduce the basic concepts of robotics, focusing on the construction and programming of autonomous mobile robots in addition to learning the fundamentals of open loop systems using analog and digital sensors. Course information will be tied to lab experiments; students will work in groups to build and test increasingly more complex mobile robots, culminating in an end-of-semester robot contest. We will be using VEX Robotic Design System as our platform. Students will be divided into groups and complete a variety of robot construction and programming activities within the confines of these groups.

SC3441GAC	Drone Engineering and Operation	Grades 9, 10	0.5 Credit
*[Graduation Requirement: Science Related Course; STEM Related Course]			

The Milestone C team of aerospace professionals employ cutting-edge technologies and techniques to equip students with key professional skills pertinent to the drone industry and the engineering field at large. During this course students will learn about basic aerodynamics, unmanned aircraft architecture, and drone flight dynamics before applying the engineering process to design, build, and test fly their own drones in small teams, emulating a real-world aerospace engineering program from beginning to end. Following requirements analysis, design, and manufacturing students will perform flight test using their First-Person View (FPV) piloting systems on their drones. This one-of-a-kind aerospace experience culminates in a drone challenge, allowing student teams to compete against each other by applying the knowledge, skills, and experience gained during the course.

SC3335GAC	Genetics	Grades 10, 11, 12	0.5 Credit
*[Graduation Requirement: Science Related Course; STEM Related Course]			

This course is designed to educate students about molecular basis and application of Genetics. Topics include, but are not limited to mitosis and meiosis, birth defects, Mendelian genetics, patterns of inheritance, sexual development and inheritance, pedigrees, structure and function of nucleic acids, transcription and translation, DNA mutation and repair, genetic disorders, karyotypes, allele frequencies, genetic engineering, and biotechnology. This course should be of particular interest to college bound students with ambitions toward medical or health-related careers. **Prerequisite: Biology**

SC3385GAC	Forensics	Grades 11, 12	0.5 Credit
*[Graduation Requirement: Science Related Course; STEM Related Course]			

Forensics is the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system. Discussion in this course will be limited to only those areas of chemistry, biology, physics, and geology that are useful for determining the value of crime scene and related evidence. Work in this course will center around the science and technology of evidence collection. This course will be a comprehensive review of biology, chemistry, physics and other science topics. Topics covered will include fingerprinting, body fluids, DNA typing, fire tread analysis, hair and fiber analysis, metallurgy, polygraph testing, ethics, and legal issues. **Prerequisite: Biology and Chemistry**

SC3332GAC	Marine Biology	Grades 10, 11, 12	0.5 Credit
*[Graduation Requirement: Science Related Course; STEM Related Course]			

This course is designed as a marine environmental study focusing on the fauna and flora of the intertidal zones, estuaries and marshlands of **Long Island Sound**. This course will include field trips to these areas, the use of instruments and charts to collect data from a variety of marine environments and laboratory exercises to identify and classify marine organisms. Significant aspects of physical and chemical oceanography will be integrated into the course of study. Rain, snow, mud and water conditions will be encountered. **Prerequisite: Biology**

<b>SC3383GAC</b>	<b>Environmental Science</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

An introduction to the biological and non-biological factors of the environment and their effects on environments and inter-environmental relationships, including an investigation into methods of control and management of human-populated environments. Environmental outdoor laboratory sessions in the Norwalk area are part of the course. **Prerequisite: Biology**

<b>SC3388GAC</b>	<b>Meteorology</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Meteorology is the study of earth's gaseous envelope, its atmosphere and its role as it processes the sun's daily assault of energy. Storms, winds, climate patterns, seasons all relate their characteristics to the interaction of the sun's energy and earth's atmosphere. Topics include atmospheric structure, composition and motion; atmospheric evolution throughout earth's history; understanding and making observations using standard meteorological tools and instruments; daily and long-rate weather forecasting; effects of severe weather on the environment; humanity's continuing struggle to prepare for the consequences of living in the path of destructive storms or extreme weather conditions. **Prerequisite: Biology.**

<b>SC3381GAC</b>	<b>Astronomy</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

A rigorous study of astronomy to provide an understanding of the order of the universe and an awareness of man's place in this order. This course includes such diverse topics as the modern concept of the origin of the universe, the life and death of stars, galactic evolution, pulsars, quasars and black holes. **Prerequisite: Intensified Algebra 1 or Algebra 1, Biology**

<b>SC3336GAE</b> <b>NHS ONLY</b>	<b>Anatomy and Physiology (Lab Science)</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Human Anatomy and Physiology includes the study of all structures within the major organ systems of the human body. The morphology of these systems will be directly correlated with how major structures are able to function. This course is designed to examine a healthy state of the human body in comparison with the abnormalities and their physiological effects that result from disease. A comprehensive review of biology, chemistry, and other biological sciences will be integrated throughout this full year course. Dissections will serve as a significant form of assessment allowing practical application of the knowledge attained throughout the semester. Course material will be covered in depth and at a demanding pace. Course material will be covered in a manner that is conducive to students of all backgrounds and abilities to learn. **Prerequisite: Biology and Chemistry**

<b>SC3336HAE</b> <b>NHS ONLY</b>	<b>Honors Anatomy and Physiology (Lab Science)</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Human Anatomy and Physiology includes the study of all structures within the major organ systems of the human body. The morphology of these systems will be directly correlated with how major structures are able to function. This course is designed to examine a healthy state of the human body in comparison with the abnormalities and their physiological effects that result from disease. A comprehensive review of biology, chemistry, and other biological sciences will be integrated throughout this full year course. Dissections will serve as a significant form of assessment allowing practical application of the knowledge attained throughout the semester. Course material will be covered in depth and at a demanding pace. **Prerequisite: Biology and Chemistry**

<b>SC3434GAC5</b> <b>NHS ONLY</b>	<b>Public Health and Epidemiology</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Public Health and Epidemiology investigates introductory level epidemiology principles, concepts and procedures useful in the surveillance and investigation of health-related events. Some topics will include Disease Control and Prevention; Epidemiology; Outbreak Investigations; Preparedness and Response; and Surveillance. Basic microbiology and vaccinations, universal precautions, and biostatistics concepts will also be integrated. **Prerequisite: Biology and Algebra 1; Co-requisite: Chemistry**

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
SC3430ICE	IB Physics HL Y1	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
SC3432ICE	IB Physics HL Y2	<b>2 Year Course</b>	

**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

IB Physics HL is an in-depth and rigorous Physics course in which students will learn concepts and methods of physics and develop analytical and experimental skills. Topics of study include mechanics, oscillations and waves, optics, heat and thermodynamics, fluid physics, electricity and magnetism, atomic and nuclear physics, relativity, etc. This course will be Algebra and Trigonometry based. Lessons will consist of lecture, group work, problem solving and experimentation, enabling students to develop their thinking, reflection, inquiry and communication skills while developing their knowledge of physics as well as their knowledge of the world through physics.

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
SC3431ICE	IB Environmental Systems and Societies SL Y1	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
SC3433ICE	IB Environmental Systems and Societies SL Y2	<b>2 Year Course</b>	

**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

IB Environmental Science is an extensive two-year study of human interactions with planet earth, through a global and multicultural lens. This course will maintain the rigor and expectations of an introductory environmental science course at any higher learning institution. In addition to traditional instruction and labs, students will be challenged to become self-guided learners, developing their own projects and research activities throughout the course. The goal of this course is to (1) provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, and (2) to require students to think critically about information and issues, and to problem solve, with the foresight to weigh the risks, rewards, and ethics of any solution. Core topics will include earth systems and resources, ecosystem structures, diversity, and resiliency, population dynamics, sustainability of modern land and water use, energy resources and consumption, pollution, global climate change, and international environmental law. Finally, this course will get students outside of the classroom and into the natural world, visiting locations, interacting with the environment, and addressing contemporary issues in the proper setting.

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
SC3438ICE	IB Biology SL Y1	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
SC3439ICE	IB Biology SL Y2	<b>2 Year Course</b>	

**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

IB Biology is a Standard Level course that fulfills the science requirement for the International Baccalaureate Diploma Programme (DP). The Biology SL course will provide students with higher-order investigative experiences and activities to promote a deeper understanding of critical concepts in Biology. Such concepts will include basic biochemistry, cell structure and function, genetic patterns of inheritance, plant form and function, evolution, ecology, animal physiology and the international nature of science. It will emphasize the development of inquiry skills and higher order thinking via experiential learning in both a classroom and laboratory settings. Students will be required to demonstrate knowledge in experimental methodology, data collection, and the interpretation of experimental data. The classroom environment will stimulate student open-mindedness by providing authentic application to the biology content, thus enabling students to make the broad connections to how these biological concepts are applicable to the global community. Theory of Knowledge concepts and global connections will be discussed and integrated throughout the course.

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
SC3452ICE	IB Sports, exercise and health science SL Y1	<b>Grades 11 and 12</b>	<b>1 credit per year</b>
SC3453ICE	IB Sports, exercise and health science SL Y2	<b>2 Year Course</b>	

**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

Sports, exercise and health science (SEHS) is an experimental science that combines academic study with the acquisition of practical and investigative skills. It is an applied science course with aspects of biological and physical science being studied in the specific context of sports, exercise and health. Moreover, the subject matter goes beyond the traditional science subjects to offer a deeper understanding of the issues related to sports, exercise and health in the 21st century. Apart from being worthy of study in its own right, SEHS is a good preparation for courses in higher or further education related to sports fitness and health and serves as useful preparation for employment in sports and leisure industries.

**PROJECT LEAD THE WAY ENGINEERING**

<b>SC3410HAE</b>	<b>Honors Introduction to Engineering Design (PLTW)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

This course introduces students to the basics of sketching, lettering, orthographic projection, and 3D Modeling. Students will practice these skills on the drafting board and be introduced to Computer Aided Drafting (C.A.D.). The knowledge and skills developed can be applied to any of the fields of engineering including civil, electrical and mechanical. Topics include the design process, research and analysis, teamwork, communication methods and engineering standards and technical documentation. This course follows the Project Lead the Way curriculum which will allow students who meet the requirements to receive college credit. **Co-requisite: Geometry**

<b>SC3411HAE</b>	<b>Honors Principles of Engineering (PLTW)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

Using activities, projects, and problems students will explore careers in engineering and technology, look at various technology systems and manufacturing processes and learn how engineers and technicians use math, science and technology in an engineering problem-solving process to benefit people. This course follows the Project Lead the Way curriculum which will allow students who met the requirements to receive college credits. **Prerequisite: Geometry. Recommended prerequisite: Introduction to Engineering Design**

<b>SC3412HAE</b> <b>BMHS ONLY</b>	<b>Honors Digital Electronics (PLTW)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

Through the use of computer simulations and actual prototyping, students will design, test and construct electronic circuits and devices to learn about the logic of electronics. This course follows the Project Lead the Way curriculum which allows students that meet the requirements to receive college credit. **This course fulfills the computer literacy requirement. Prerequisite: Intensified Algebra 1 or Algebra 1; Co-requisite: Geometry**

<b>SC3413HAE</b> <b>BMHS ONLY</b>	<b>Honors Biotechnology Engineering (PLTW)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

This course introduces students to the diverse fields of biotechnology including biomedical engineering, molecular genetics, bioprocess engineering and agricultural and environmental engineering. Lessons engage students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering and agricultural biotechnology. This course follows the Project Lead the Way curriculum. **Prerequisite: Biology; Co-requisite: Chemistry**

<b>SC3437HAE</b> <b>BMHS ONLY</b>	<b>Honors Aerospace Engineering (PLTW)</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

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 will learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles. **Prerequisite: Honors Intro to Engineering**

<b>SC3415HAE</b> <b>NHS ONLY</b>	<b>Honors Civil Engineering and Architecture (PLTW)</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

This course is more than just another high school engineering course. This course is about applying engineering, science, math, and technology to solve complex, open-ended problems in a real-world context. Students focus on the process of defining and solving a problem, not on getting the "right" answer. They learn how to apply STEM knowledge, skills, and habits of mind to make the world a better place through innovation. PLTW students have said the PLTW Engineering influenced their post-secondary decisions and helped shape their future. Even for student who do not plan to pursue engineering after high school, the PLTW Engineering program provides opportunities to develop highly transferable skills in collaboration, communication and critical thinking, which are relevant for any coursework or career. **Co-requisite: Algebra 2. Recommendation: Principles of Engineering.**

<b>SC33387HAE</b> <b>NHS ONLY</b>	<b>Honors Environmental Sustainability (PLTW)</b>	<b>Grades 11, 12</b>	<b>1Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course; Digital Literacy]**

Since the growing awareness of the complexity surrounding environmental issues, companies began to strategically rethink environmental initiatives and take into account proactive solutions in addition to remedial ones. Proactive environmental strategies include the practice of pollution prevention, industrial ecology, and design for the environment. These ideas all serve to reexamine remediation treatments the most effective option for environmental issues and instead focus on the source and design of the technology. Students will use the design process to create solutions for these complex and imminent issues. **Co-requisite: Algebra 2. Recommendation: Principles of Engineering.**

**THE MCMAHON HEALTHCARE ACADEMY**

<b>SC3448GAE</b> <b>BMHS ONLY</b>	<b>Introduction to Healthcare Science</b>	<b>Grade 9</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

Introduction to Healthcare Science provides the foundational knowledge and skills students need for careers in healthcare. Using real-life scenarios and application-driven activities, students learn the responsibilities and challenges of being healthcare professionals. In addition to building their understanding of technical concepts and skills, students evaluate the qualifications required for specific careers and develop personal career plans to pursue work in the healthcare industry. The course focuses on day-to-day skills of healthcare workers including promoting wellness, maintaining a safe environment, creating medical records and practicing good communication, collaborating and leadership.

<b>SC3414HAE</b> <b>BMHS ONLY</b>	<b>Honors Principles of Biomedical Science (PLTW)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

This course provides an introduction to the biomedical sciences through exciting hands-on projects and problems. Students investigate concepts of biology and medicine as they explore health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They will determine the factors that led to the death of a fictional woman as they sequentially piece together evidence found in her medical history and her autopsy report. Students will investigate lifestyle choices and medical treatments that might have prolonged the woman's life and demonstrate how the development of disease is related to changes in human body systems. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes and allow students to design experiments to solve problems. Key biological concepts including maintenance of homeostasis in the body, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum. This course is designed to provide an overview of all the courses in the biomedical sciences program and lay the scientific foundation for subsequent courses.

<b>SC3421HAE</b> <b>BMHS ONLY</b>	<b>Honors Human Body Systems (PLTW)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases. **Prerequisite: Honors Principles of Biomedical Science**

<b>SC3394HAE</b> <b>BMHS ONLY</b>	<b>Honors Medical Interventions (PLTW)</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat a disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through world real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. (PLTW Course Description.) **Prerequisite: Successful completion of Principles of Biomedical Science and Human Body Systems**

<b>SC3393CCC</b> <b>BMHS ONLY</b>	<b>UConn ECE Medical Terminology</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Medical Terminology is a College prerequisite for any Health Career Major. Medical Terminology is an introduction to the principles of medical terminology and vocabulary needed to work in the healthcare field. Comprehensive medical vocabulary will be related to specific body systems, structures and focus on many different pathological terms and medical procedures. There is an emphasis on the correlation to various medical careers as well as their relevance to the particular duties in the career

<b>SC3146CCE</b> <b>BMHS ONLY</b>	<b>UConn ECE Biotechnology PLSC3230</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases. **Prerequisite: Honors Principles of Biomedical Science**

<b>SC3435GAE</b> <b>BMHS ONLY</b>	<b>Emergency Medical Technician Certification (EMT)</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

The Emergency Medical Technician course prepares the EMT student to provide prehospital assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries. Areas of study include an introduction to emergency medical service systems, roles and responsibilities of EMTs, anatomy and physiology, medical emergencies, trauma, special considerations for working in the prehospital setting, and providing patient transportation. **Prerequisite: Principles of Biomedical Science and Human Body Systems.**

<b>SC3449GAE</b> <b>BMHS ONLY</b>	<b>Honors PLTW Biomedical Innovations</b>	<b>Grade 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

In this full year course, Students will use the skills and knowledge learning in Marine Studies I to further study the marine sciences and marine industries. Students will study physical oceanography in detail and use mathematical and statistical analysis to study the impacts of tides, currents, and other physical oceanographic phenomena on the marine ecosystems, sea going vessels and shipping industry. Students will use statistical analysis to further study the various marine ecosystems while using current standard sampling and analysis tools to monitor water quality and the health and sustainability of local ecosystems as well as in the aquaponics laboratory classroom. Students will gain further knowledge of local marine science industries and apply mathematical skills necessary to analyze the sustainability of these industries into the future. Students will work with the BMHS Marine Science Academy partners to learn and experience marine science firsthand. **Prerequisite: Marine Science**



**MARINE SCIENCE ACADEMY**

<b>SC3423GAE</b> <b>BMHS ONLY</b>	<b>Marine Studies 1</b>	<b>Grades 9, 10</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

In this full-year course, students will be introduced to the study of Marine Science and Industry. Topics will include raising marine wildlife in our facility’s aquaculture laboratory, exposure and application of relevant industry practices in partnership with local marine-based industries. This course includes work at fieldwork sites at Norwalk’s local waterfronts as well as research opportunities on Sheffield Island. Through projects, authentic laboratory experiences and class discussions, students will be exposed and engaged in the techniques and technology that are current and relevant in the diverse Marine Science field.

<b>SC3424GAE</b> <b>BMHS ONLY</b>	<b>Marine Studies II</b>	<b>Grade 10, 11</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

In this full year course, Students will use the skills and knowledge learning in Marine Studies I to further study the marine sciences and marine industries. Students will study physical oceanography in detail and use mathematical and statistical analysis to study the impacts of tides, currents, and other physical oceanographic phenomena on the marine ecosystems, sea going vessels and shipping industry. Students will use statistical analysis to further study the various marine ecosystems while using current standard sampling and analysis tools to monitor water quality and the health and sustainability of local ecosystems as well as in the aquaponics laboratory classroom. Students will gain further knowledge of local marine science industries and apply mathematical skills necessary to analyze the sustainability of these industries into the future. Students will work with the BMHS Marine Science Academy partners to learn and experience marine science firsthand. **Prerequisite: Marine Science.**

<b>SC3449GAE</b> <b>BMHS ONLY</b>	<b>Marine Engineering and Trades</b>	<b>Grade 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

Marine Engineering and Trades offers a broad introduction to the mechanical and technical aspects of the marine industry this course will provide student’s project based laboratory experiences focusing on key aspects of 21<sup>st</sup> century skills required for the industry. Through a series of conceptual small- term projects culminating in a hands-on final project, students get first-hand experience in what day-to-day life as a marine engineer and /or skilled tradesman is like. Students will benefit from the technical and soft skills acquired during this course for years to come. Regardless of the career path they choose.

<b>SC3450ICE</b> <b>BMHS ONLY</b>	<b>IB Marine Science SL</b>	<b>Grades 11 and 12</b>	<b>1 Credit each year</b>
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**\*[Graduation Requirement: Science Related Course; STEM Related Course]**

IB Marine Science is a two-year multidisciplinary course that provides a rigorous option for students where hands-on practical work in the field can be carried out and they have many opportunities to engage in real-world scientific inquiry and investigation. Students in this course develop a deep understanding of five topics: origin and structure of oceans; dynamics of Earth’s crust; patterns of water movement; properties of ocean water; ocean life. A sixth topic is selected from three options: marine ecosystems; atmosphere, ocean and climate; geology of ocean basins. Students are required to complete a total of 40 hours of laboratory and fieldwork. In addition, students demonstrate their knowledge and analytical skills through writing, discussion, formulating scientific research questions and producing formal lab reports. The course is designed to address the practices of science and engineering as identified in the Next Generation Science Standards.

**Physical Education and Wellness  
Health and Safety**

DRAFT

## Physical Education and Wellness

<b>PE9001GAC</b>	<b>Physical Education</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>PE9002GAC</b>	<b>Physical Education</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Physical Education and Wellness]</b>			

Physical Education is a comprehensive program that teaches students the skills and concepts necessary to lead a healthy lifestyle. Adaptive PE will be provided in accordance with the student's Individualized Educational Plan. Credit earned in physical education counts toward honor roll, graduation, and rank-in-class. *Students must pass 1 credit of physical education and wellness to graduate, which includes the state required physical fitness test.*

The program is designed to develop physically educated students who:

- Demonstrate competency in motor skills and movement patterns needed to perform a variety of physical activities
- Demonstrate understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities
- Participate in regular physical activity
- Achieve and maintain a health-enhancing level of physical fitness
- Exhibit responsible personal and social behavior that respects self and others in physical activity settings
- Value physical activities for health, enjoyment, challenge, self-expression and/or social interaction

<b>PE9020GAC</b>	<b>Aquatic Fundamentals (Swimming)</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Physical Education and Wellness]</b>			

Whether you are only in, on, or around the water in the summer, you live near the beach or have a pool, you want to swim for exercise or pleasure, already know the basics or are beginning, this semester course is for all grades and abilities. Designed for all levels, classes allow swimmers to develop good habits in, on, and near water, become comfortable in the water, learn and refine new strokes, and become stronger, safer swimmers.

<b>PE9021GAC</b>	<b>Lifeguarding</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Physical Education and Wellness]</b>			

The American Red Cross lifeguarding classes are designed with your learning style in mind. Students must be at least 16 years old to enroll. The American Red Cross Lifeguard Manual contains skills sheets and references to help you understand the importance of water safety and arm you with all of the knowledge necessary to help save lives and avoid injury. At the culmination of the course, students will take the lifeguarding test for the opportunity to be a certified lifeguard.

<b>PE9022GAC</b>	<b>Water Safety Instructor (WSI)</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>NHS ONLY</b>			
<b>*[Graduation Requirement: Physical Education and Wellness]</b>			

Earn your certification to teach American Red Cross swimming and water safety, and gain the skills needed to teach courses and make presentations to swimmers of every age and ability. This course trains instructor candidates to teach all of the courses presented in the Swimming and Water Safety program to all age groups; Learn-to-Swim Levels 4-6 and Adult Swim. At the culmination of the course, students will take the WSI test for the opportunity to be a certified water safety instructor.

<b>PE9113GAC</b>	<b>Functional Fitness</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Physical Education and Wellness]</b>			

This course will focus on exercises and programs which allow students to perform the activities of daily life more easily and without injuries. The foundation of the course is PLT4M, which utilizes a variety of research-based fitness and performance programs, managed through an online platform, which will allow students to capture their results and measure their progress.

<b>AD0011GAC</b>	<b>Leadership Development</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Courses]</b>			

This course will equip students with the leadership and interpersonal skills necessary for them to guide effectively their classmates and peers to reach their personal potential. The curriculum will provide students with the skills to increase the positive impact they can have throughout their school and for a lifetime of successful living.

### Health Education and Safety

<b>PE9105GAC</b>	<b>Health Education 1</b>	<b>Grades 9, 10</b>	<b>0.5 Credit</b>
<b>PE9106GAC</b>	<b>Health Education 2</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Health and Safety]</b>			

The health courses develop the concept that a person's health is greatly influenced by the kind of information that a person has and the way this information is used in making decisions about the individual's life. Life skills integrated throughout coursework are: accessing reliable information, advocacy, analyzing influences, decision making, goal setting, and not limited to student self-management. The Health Curricula focus on Four State standards: Healthy and Active Life, Injury and Disease Prevention, Human Growth and Development, Substance Abuse Prevention. *Students must pass 1 credit of health and safety to graduate.*

- Suggested Health 1 Core Units:** Physical, Social and Mental Wellness, Nutrition, Physical Activity planning, First Aid, CPR/AED, Human Growth, Development, Sexuality, AIDS prevention, Alcohol use, Drug use/abuse, and Leadership concepts and practices.
- Suggested Health 2 Core Units:** Physical, Social and Mental wellness, Suicide Prevention, Disease Prevention, including lifestyle, infectious diseases and self-examinations, Alcohol use, drug use and abuse, healthy relationships, First Aid, CPR/AED, Safety, and Family concepts.

<b>PE9109GAC</b>	<b>Fundamentals of Human Performance</b>	<b>Grades 11, 12</b>	<b>0.50 Credit</b>
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This course prepares students to work in a variety of entry-level professional positions in the fitness and health promotion industry. Coursework will engage students in a variety of areas, including body composition analysis, effective exercise prescription, energy systems, nutrition, goal setting and stress management strategies.

Upon successful completion of the course, students will have the skills and knowledge to apply for and gain certification in the fitness and health promotion industry, which can lead to positions as personal trainers, group exercise leaders, strength and conditioning coaches, and fitness directors in settings ranging from public and private fitness centers, corporate fitness environments, as well as athletic teams and community centers. **Prerequisite: Health 1; Co-requisite: Health 2**

<b>PE9024GAC</b> <b>BMHS ONLY</b>	<b>Garden to Table</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
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Garden to Table teaches students about nutrition, gardening, food sustainability, farming, food production, food justice etc., through real-life hands on gardening and cooking experiences. The goal is to inspire young people to develop curiosity about where their food comes from, how it is grown and produced and what to do with it once they grow it.

<b>PE9024GAC</b>	<b>Responding to Emergencies</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Health and Safety]</b>			

The primary purpose of the American Red Cross Responding to Emergencies: Comprehensive First Aid/CPR/AED program is to help students recognize and respond appropriately to cardiac, breathing and first aid emergencies. The courses in this program teach students the knowledge and skills needed to give immediate care to an injured or ill person and to decide whether advanced medical care is needed. Upon successful completion of all skills and assessments, students will earn the appropriate American Red Cross certification.

**Pathway Related Courses:**

***Business***

***Family Consumer Science***

***JROTC***

***IB Core***

***Multilingual Learners (MLL)***

***Specialized Education***

## Business

The Business Department offers courses in both the Business Administration and Management and Computer Studies. The skills and business methods taught in these courses will provide valuable preparation for students who are planning for a career in business, computer technology as well as other career paths.

### Business Administration and Management

<b>AR5501GAE</b>	<b>Principles of Business</b>	<b>BMHS Grades 9, 10, 11, 12</b> <b>NHS Grades 9, 10</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Pathway Related Course]**

Students will apply and connect basic business principles to current market trends and opportunities. Instruction includes product innovation, competitive environments, and economic decision making. Students will explore methods to increase individual and company productivity as they look at situations from both a business owner and employee point of view. Major business concepts include: economics, leadership, entrepreneurship, management, marketing, finance, operations, human resources, and the government's effects on business. The course will offer current events, case studies, self-directed projects and activities that allow students to collaborate as they would in a business environment.

<b>AR5503GAC</b>	<b>Exploring Careers</b>	<b>Grade 9</b>	<b>0.5 Credit</b>
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**\*[Graduation Requirement: Pathway Related Course]**

This introductory class allows the student to begin the process of researching different careers based on interests, skillset, personality and passions. By choosing a career based on what they want to do, students can develop the ability to make informed decisions about their future. Students will learn about gaining self-awareness, developing strong communication skills, and adopting professional workplace attitudes and skills to succeed in the workplace. Final course project allows students to create a detailed PowerPoint presentation on their current career choice highlighting research developed about colleges and lifestyle.

<b>AR5504GAC</b>	<b>Exploring Entrepreneurship</b>	<b>Grade 9</b>	<b>0.5 Credit</b>
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**\*[Graduation Requirement: Pathway Related Course]**

This introductory course will provide the basic concepts of starting a business. It helps students begin the process of an entrepreneurial mindset and prepare to innovate. In this course, students will work in groups and learn how to develop a business idea, complete market research, prepare basic financial statements, and write a business plan giving them a true understanding of the entrepreneurial process. The students will have the opportunity to apply these strategies in real life scenarios as they attempt to earn a real profit on a group business venture.

<b>AR5563HAE</b>	<b>*Honors Entrepreneurship (Starting a Business)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Pathway Related Course]**

This course covers the development process of a new venture. It begins on a conceptual level, then addresses the fundamentals such as financing the new venture, competitive positioning, branding and imaging, insurance and regulatory requirements, marketing, protecting intellectual property, the legal entity structure, the website development components and cost, product sourcing, etc. The class will teach how to pitch the new venture for competitions or to capital providers. Each student will develop a minimum viable product and produce a business model canvas both which can be built upon further in a business plan in a subsequent class.

<b>AR5563GAE</b>	<b>Entrepreneurship (Starting a Business)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement: Pathway Related Course]**

In this course students will gain the skills and knowledge needed to start, finance, and manage a small business. Students will develop a business plan for a "real business venture." Students will learn to conduct market research, use marketing strategies, project annual sales, determine start-up costs, and calculate cost of sales and operating expenses to prepare monthly and annual income statements. This course will provide the student with the opportunity to purchase, price, and actively sell products within the school environment. Students will gain authentic experience through the use of case studies, field trips, sales events and interaction with local entrepreneurs.

<b>AR5542GAC</b> <b>*[Graduation Requirement: Pathway Related Course]</b>	<b>Principles of Personal Finance</b>	<b>Grades 9, 10</b>	<b>0.5 Credit</b>
<p>This course prepares students to plan for financial success. With a focus on developing decision-making and goal setting skills, understanding the relationship between career choices and income, creating budgets, analyzing paychecks, and obtaining and utilizing credit wisely, students will learn the keys to achieving their financial dreams. Students will also learn the most effective way to make their money grow with the help of compound interest and intelligent investing.</p>			
<b>AR5543GAC</b> <b>*[Graduation Requirement: Pathway Related Course]</b>	<b>Personal Finance</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<p>This course will prepare students to transition to financial independence – either at college or in the work environment. Students will learn how to develop strategies for managing their money and how to create wealth through investing. Key topics will include checking and savings accounts, budgeting, credit including credit cards, credit reports and the importance of credit scores, and retirement plans. The course will examine the basic types of insurance available, and current consumer protection laws. Students will learn about taxes including federal, state, and payroll. Students will apply their knowledge through the use of projects, and online simulations.</p>			
<b>AR5552HAE</b> <b>*[Graduation Requirement: Pathway Related Course]</b>	<b>*Honors Accounting 1</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>Accounting 101 is an introduction to the basic principles of Accounting, and how to account for business transactions. Emphasis on the understanding of how financial statements are prepared, and how they are used as a basis for decision making by business owners, investors, creditors, government and others interested in the financial condition of an economic entity and the result of its operations. <b>*This class is strongly recommended for students planning a degree in any area of business.</b></p>			
<b>AR5553HAE</b> <b>*[Graduation Requirement: Pathway Related Course; Digital Literacy]</b>	<b>Honors Accounting 2</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<p>This course expands on topics introduced in the first-year course while adding new topics about money, managerial accounting, cost accounting, corporate accounting, and financial analysis. Students will be completing assignments utilizing the computer and various accounting software. Accounting 2 give a strong foundation for post-secondary studies in business. <b>Prerequisite: Honors Accounting 1. *This course fulfills the digital literacy requirement.</b></p>			
<b>AR5561GAC</b> <b>NHS ONLY</b> <b>*[Graduation Requirement: Pathway Related Course]</b>	<b>Business Law</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<p>This course involves the principles of personal and business law. Facets of law covered include Constitutional Statutes, Common Law, Law of Contracts, Law of Sales, Criminal Law, Cyber Law, and Tort Law. This course is geared to help the students understand principles of law that affect their everyday personal and business life.</p>			
<b>AR5568GAC</b> <b>NHS ONLY</b> <b>*[Graduation Requirement: Pathway Related Course]</b>	<b>Business in the Global Economy</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<p>This course will give the students a greater understanding of economics ranging from the viewpoint of the individual consumer to the global economy. The course will study the law of supply and demand, and their influence in determining equilibrium for consumer prices. The course will also cover global economic patterns as they respond to government, financial, and legal decisions. The course will also compare and contrast the American Free Enterprise System vs. other global economic systems.</p>			

AR5568GAC BMHS ONLY	International Business	Grades 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Pathway Related Course]**

Students will explore, analyze, and present causes of growth and productivity in certain nations and economies. Students will learn about the costs and benefits of free trade and globalization. Students will understand critical world trading relationships, partners and agreements. Students will research and present powerful multinational corporations for evidence of ethics, career, and investment opportunities.

AR5565GAC	Principles of Investing	Grades 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Pathway Related Course]**

This introductory course will help students develop a thorough understanding of the concepts and theories that apply to stock market trading of stocks, bonds and mutual funds. Through an on-line investment simulation, students will learn how to research financial information about corporations, develop and manage an investment portfolio, buy and sell stocks on an exchange, and to evaluate market performance with market indexes.

AR5566GAC	Sports and Entertainment Marketing	Grades 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Pathway Related Course]**

Students will be introduced to marketing concepts as they relate to the ever-changing sports and entertainment industries. This course examines the business of sports in the professional, college, and amateur fields, as well as the vast field of entertainment, focusing on their impact on companies, players, and consumers. Topics will include all 7 Marketing functions and focus on the Marketing 4 P's; Price, Product, Promotion and Place. Students will also discuss other related topics such as imaging, licensing, branding and market research. The course will offer field trips, guest speakers and self-directed projects which allow students to apply creativity in creating marketing campaigns to help a business succeed.

AR5569GAC	Marketing 1	Grades 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Pathway Related Course]**

This course consists of the fundamental skills of marketing including: planning and developing products, pricing, placement, and promotion with a focus on the customers' needs and wants. Students will analyze different target markets and strategies to effectively reach them. Major companies will be included in case studies and profiled for modern marketing techniques.

AR5570GAC	Marketing 2	Grades 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Pathway Related Course]**

This project-based course allows students to develop and demonstrate management level marketing skill. Students will learn advanced marketing principles that demonstrate proficiency by completing a marketing project or internship. An example of a marketing project/internship might include developing and running a school enterprise, conducting market research for a business; develop an advertising campaign or interdisciplinary work with other business classes. **Prerequisite: Marketing 1.**

AR8865ICE AR8903ICE BMHS ONLY	IB Business Management HL Y1 IB Business Management HL Y2	Grades 11.12	1 Credit per year
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**\*[Graduation Requirement: Pathway Related Course]**

The IB Business Management course provides students an opportunity to "develop a holistic understanding of today's complex and dynamic business environment." This course will introduce students to the key characteristics of business organization as well as give them the chance to explore the functions of: finance and account analysis, marketing, operational management, and human resource management as they are all integral to the success of any organization at either: local, national or international levels. In addition to learning the fundamentals of business organization, the course will also emphasize the importance of ethical decision making and its influence on the global economy.



## Family and Consumer Science

Family and Consumer Science courses provide students with activity-oriented experiences to develop leadership, problem solving, communications, employability, interpersonal and technology skills applicable in the family, workplace and community.

<b>AR6669GAC</b> NHS ONLY	<b>Principles of Culinary Arts</b>	<b>Grade 9, 10</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

Through a combination of demonstration and hands on practice, students will be introduced to the basic principles of cookery, including recipe interpretation, measurements, food safety, and basic cooking methods.

<b>AR6668GAE</b> NHS ONLY	<b>Culinary Arts 1</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

*Students will learn using the industry-standard Prostart 1 curriculum.* They will discover what makes a restaurant successful and examine principles of nutrition, food production and service. Students will prepare and serve a variety of foods in an industrial kitchen and visit local hotels and restaurants. **Prerequisite: Principles of Culinary Arts.**

<b>AR6670GAE</b> NHS ONLY	<b>Culinary Arts 2</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

*Students will learn using the industry-standard Prostart 2 curriculum.* Students will apply basic principles of food production and service covered in year one. They will extend their knowledge and understanding of cold kitchen, cooking methods, ethnic and regional cuisines, baking and pastry arts, charcuterie, and dining room management through practical application. **Prerequisite: Culinary Arts 1**

<b>AR6667GAC</b> BMHS ONLY	<b>Introduction to Culinary Arts</b>	<b>Grade 9, 10</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This one-semester course provides a starting point to learn basic cooking in a professional setting, and is a prerequisite for all subsequent World Language, Food, and Culture classes. The primary objectives are to provide proficiency in cooking methods, recipe interpretation, culinary tools, and proper technique. During this course, sanitation, food safety, and nutrition are stressed.

<b>AR6675GAE</b> BMHS ONLY	<b>Culinary Arts 1: World Cuisine Survey</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

In this world cuisine survey, students will learn to: compare the ways people of different cultures meet their basic nutritional needs, explain why and how certain foods have become staples in a given country, identify factors that influence food choices and customs, identify foods of different cultures and describe their history. They will also learn to describe the role of food in traditional celebrations around the world and trace the development of food traditions in the United States and prepare dishes characteristic of various cultures. **Prerequisite: Introduction to Culinary Arts.**

<b>AR6676GAE</b> BMHS ONLY	<b>Culinary Arts 2: Independent Study in World Food and Culture</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

Students will choose and research a cultural region. Working in small groups, they will create projects that deepen their understanding of the relationship between the region and its cuisine and compare and contrast food sources, distributions, and uses. Projects will be designed in consultation with the instructor, and will include, but not be limited to, a series of food preparations, comparative tastings, and live presentations to other students in the course. **Prerequisite: Culinary Arts 1**

**AR6671GAE5**  
**NHS ONLY**

**Culinary Arts 3**

**1 Credit**

Students will apply theory and practical knowledge through techniques learned in Culinary Arts 1 and 2. Students will conduct research and produce special projects in addition to acting as an assistant chef instructor to students in Culinary Arts 1 and 2 courses. Students will assist the head chef in preparing and catering events within the school building and off campus locations as well. **Prerequisite: Culinary Arts 1 and 2**

**JROTC**

**Aerospace (Air Force) NHS ONLY**

The mission of the Air Force Junior Reserve Officer Training Corps (AFJROTC) is to develop citizens of character dedicated to serving their nation and community. All Aerospace Science courses strive to build better and more successful citizens through academic classes, leadership and community service opportunities, physical fitness classes, and co-curricular activities. Students who take full advantage of the program, inside and outside the classroom, will finish with experience and skills that make them highly competitive for higher education and scholarship opportunities or employment.

Cadets are required to wear the uniform once a week to all classes. In uniform, the student is required to meet USAF grooming standards as they relate to hair, jewelry, earrings, facial hair, etc. Prospective cadets should make certain they know these requirements prior to enrollment. Failure to wear the uniform or meet grooming standards will result in failure of the course.

	<b>Aerospace Science and Leadership 1:</b>	<b>Grades 9,10,11,12 (New Cadets Only)</b>	
<b>AR9290GAC (Fall)</b>	<b>Milestones in Aviation History;</b>		<b>.5 Credit</b>
<b>AR9291GAC (Spring)</b>	<b>Traditions, Wellness, and Foundations of Citizenship</b>		<b>.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

AS-100 is an aviation history course focusing on the development of flight throughout the centuries. It starts with ancient civilizations and flight, then progresses through time to future developments in aerospace, with an introduction into cyber technologies. LE-100 will introduce cadets to the history, organization, mission, traditions, goals, and objectives of JROTC for all services. It introduces key military customs and courtesies, how to project a positive attitude, and examines the principles of ethical and moral behavior. It provides strategies for effective note taking and study skills for academic success. The Wellness program seeks to motivate cadets to lead active, healthy lifestyles beyond high school and into their adult lives.

	<b>Aerospace Science and Leadership 2:</b>	<b>Grades 10, 11, 12 (Returning Cadets)</b>	
<b>AR9282GAE (Fall)</b>	<b>Science of Flight</b>		<b>.5 Credit</b>
<b>AR9282GAE (Spring)</b>	<b>Principles of Management</b>		<b>.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

AS-200: The Science of Flight is an introductory course that focuses on how airplanes fly, how weather conditions affect flight, and the human body, and flight navigation. The course is designed to complement materials taught in math, physics, and other science-related courses. LE 400: Fundamentals of Management provides an introduction to basic management concepts and skills, especially as they relate to managing in a JROTC unit. Along the way, you will learn some of the history of management studies and encounter elements of more recent management research. This is a two semester course for all returning cadets.

The mission of the Air Force Junior Reserve Officer Training Corp (AFJROTC) is to develop citizens of character dedicated to serving their nation and community. *There is "No Military Commitment" for our cadets. See notes section below for additional information on this courses program of studies.* **Prerequisite: Aerospace Science 1**

**Note: Our curriculum changes annually based on a four-year cycle. Aerospace Science 1 is for new cadets and offered every year. The following are the additional academic courses covered over the cycle for returning cadets:**

**Aerospace Science 2: The Science of Flight; Principles of Management**

**Aerospace Science 3: Cultural Studies; Life Skills**

**Aerospace Science 4: Exploring Space; Communications, Awareness, and Leadership**

<b>AR9285GAE</b>	<b>Naval Science and Leadership Education 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Other Related Course]</b>			

Course is an initial exploration of the US Naval Services: familiarization with naval vessels, aircraft, and systems in a maritime environment. Students introduced to concepts of citizenship, character development, and followership/leadership. Opportunities to wear the uniform, practice military and citizen customs and courtesies, first aid, participate in drill and ceremonies, and trips to military installations and museums. Individual discipline and accountability is emphasized. Cadets given opportunity to participate in community service and extra-curricular activities: drill team, orienteering, and physical fitness.

<b>AR9286GAE</b>	<b>Naval Science and Leadership Education 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Other Related Course]</b>			

Course is focused on the Naval Services' maritime role in national security. Global role of naval forces is discussed using naval systems technology and historical examples. Leadership and character development is focused on classroom practical application and leading their peers in the school and within the corps of cadets. Continued student opportunities for uniform wear, community service, and perform drill and ceremonies as a leader. Student will be familiarized with CPR / AED, public speaking, and orienteering. STEM Opportunity: STEM-Pilot (aviation). Cadets will develop a summer success plan (personal, professional, and career goals) and assist in the cadet staff operations and activities. **Prerequisite: Naval Science 1.**

<b>AR9287GAE</b>	<b>Naval Science and Leadership Education 3</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Other Related Course] **IB Career-related Program Option Year 1</b>			

Course is focused on global sea power in joint military operations in selective case studies. Continued leadership development is focused on practical application in school and in the corps of cadets. Students will develop a summer success plan (personal, professional, and career goals) and participate in community service, school support, and voluntary extra-curricular activities: drill team, orienteering, and physical fitness. Students can earn designated peer leadership or staff positions in the corps of cadets. STEM Opportunity: Cyber-Patriot competition or Sea-Perch (Sub Simulation). Select cadets provided a voluntary opportunity to perform as a Cadet Aide (peer leader) at Basic Leadership Training at Camp Niantic or compete for an opportunity to attend the 2 week Leadership Academy and Sail Training (LA/ST) held at the Newport Naval Station. **Prerequisite: Naval Science 2.**

<b>AR9288GAE</b>	<b>Naval Science and Leadership Education 4</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Other Related Course] **IB Career-Related Option Year 2</b>			

Course is specifically designed for organizational planning and small unit leadership skills for all aspects of the NJROTC unit including administration, management, and training. This includes the administration, coordination, and scheduling of all unit activities: community service, school support, drill, orienteering, physical fitness, and unit competitions. Current event leadership case studies analyzing and assessing leadership and character related performance will be discussed. Cadets will develop a high school transition success plan. It is in this final year that students are graded almost entirely upon their ability to demonstrate their leadership skills by managing the day-to-day business and long-range planning. **Prerequisite: Naval Science 3.**

**\*\* [Optional Educational Opportunity for Cadets Participating 4 Years in the NJROTC Program](#)**

**IB CAREER RELATED PROGRAM BMHS**

AD0015GAE

**IB Career-related Program (IB CP):****Grade 11,12****.50 Credit**

AD0016GAE

**BMHS ONLY****\*[Graduation Requirement: NJROTC Service Pathways]**

For student-cadets spending four years in the NJROTC program, during their sophomore year they can voluntarily apply and screen for the IB Career-related Program. The NJROTC IB CP is focused on Service Pathway careers (*Public Safety, Humanitarian, and Uniformed Services*) at the local, state, or national level based upon the student's future career interests during their junior and senior years.

**Requirements for NJROTC IB CP:**

- Student must complete NJROTC curriculum
- Student must take at least two IB academic courses: Higher Level or Standard Level
- Student must complete the IB CP Core requirements
  - Service learning: annual community service tied to their career pathway interests
  - Personal and professional skills: personal development, intercultural understanding, effective communications, thinking processes and applied ethics, developing your reflective project
  - Language development: Language and cultural skills related to their career-related pathway interests
  - Reflective Project (Capstone): IB CP student selects addresses an ethical dilemma related to their career-related studies through an extended and in depth piece of work.

The NJROTC IB career-related studies path prepares the graduate for higher education, an internship, apprenticeship, or a position in a designated service related field of interest at the local, state, or national level with international opportunities.

**IB Core (BMHS ONLY)**

SS0057ICC3

**Theory of Knowledge Y1****0.5 credit**

SC0058ICC

**Theory of Knowledge Y2****0.5 credit****\*[Graduation Requirement: Pathway Related Course]**

The "Theory of Knowledge" is a required IB Diploma course. This interdisciplinary course focuses on improving students' ability to think critically about the world around them, to become global citizens who use their understanding of how humans create knowledge-how we know what we know-to make the world a better and more peaceful place. Students will explore knowledge systems of mathematics, human sciences, natural sciences, history, the arts, religious and indigenous knowledge systems and ethics as understood through the lenses of emotion, reason, language, perceptions imagination, faith, intuition and memory. Throughout the course students will make presentations that explore a knowledge question raised by a real-life situation, as well as write essays that apply their understanding of knowledge systems and the ways knowledge is obtained. Course material is rigorous, and requires excellent written and oral communication skills.

**Extended Essay—an independent research essay****\*[IB Diploma Programme Requirement]**

This is a requirement for students working to complete the IB Diploma. All students research and write their EE independently, and can write on any topic and in any language they like (as long as it falls within the IB subject areas). Students usually write on topics that hold particular interest or reference to them, and they essay can be based on research or equipment. Additional information and guidelines will be provided to students and parents through orientation and conference with the IB Coordinator. Students will receive individual mentoring in this pursuit. Extended essay is grade by the IBO in spring of 12<sup>th</sup> grade.

**Creativity, Activity, Service—an extracurricular component****\*[IB Diploma Programme Requirement]**

This is a requirement for students working to earn an IB Diploma. CAS is an integral part of the IB Programme and is designed to help students develop new skill, interests, and understandings while providing service for others. CAS stresses the importance of experiential learning.

- Creativity: the arts and other experiences involving creative thinking.
- Activity: physical exertion contributing to a healthy lifestyle, complementing academic work elsewhere in the IB Diploma Programme.

- Service: an unpaid and voluntary exchange that has a learning benefit for the student. The rights, dignity and autonomy of all those involved are respected.

The main principles of the CAS program involve developing students into internationally-minded people who, by recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. Students are encouraged to “think globally and act locally” and that “if they believe in something, they must not just think or talk or write, but must act.”

As part of the CAS requirement, students engage in a reflection process before, during, and after the activity; reflections involve critical thinking in evaluating the success of the activity against the original goals. Students work with a mentor throughout the CAS process. In December of 12<sup>th</sup> grade, the CAS coordinator holistically evaluates each student’s CAS activities and project as pass/fail.

AD0015ICC AD0016ICC BMHS ONLY *[Graduation Requirement: Science Related Course; STEM Related Course]	IBCP Personal and Professional Skills (PPS)	Grades 11	1.0 credit
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The personal and professional skills course aims to develop responsibility, practical problem-solving, good intellectual habits, ethical understandings, perseverance, resilience, an appreciation of identity and perspective, and an understanding of the complexity of the modern world. Emphasis is on the development of skills needed to successfully navigate higher education, the workplace and society.

<p><b>Service Learning:</b> *[IB Career-related Promramme Requirement]</p>
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Service learning is **authentic service** and has the potential to be transformative for all involved, changing behaviors, actions and values as students serve the community according to the community’s needs. Service learning is not counting hours, accumulating volunteer experiences or collecting money for charities. It is about engaging with community in meaningful and positive ways. It is about strengthen communities, engaging in new learning, modeling civic responsibility, inspiring personal reflection, developing empathy and acting in ways that improve the self and the world beyond the self.

**WHAT DO CP CANDIDATES NEED TO DO?**

- **Devote a minimum of 50 hours** outside of the classroom towards service learning experiences. These experiences should be in service to others and/or your community.
- **Determine the nature of your own service learning** activities and experiences.
- **REMEMBER:** This is your experience or series of experiences. You must initiate it and make arrangements for your service. The service learning coordinator can support you in your efforts, but it is not the service learning coordinator’s job to make all the arrangements for your service hours.
- **Create and maintain a service learning portfolio** to document service and reflection.
- Your portfolio may take a variety of forms – electronic, journal, scrapbook, etc – but it should be organized and must show evidence of accomplishment according to the 5 learning outcomes.
- **Meet a minimum of 3 times** with the CP service learning coordinator to discuss progress, experiences and your portfolio documentation.  
Set up meeting times a minimum of once per semester while in the programme.

**HOW CAN THE CP SERVICE LEARNING COORDINATOR SUPPORT CP CANDIDATES IN THEIR SERVICE LEARNING EXPERIENCES?**

**The CP service learning coordinator:**

- meets with community organizations and groups to develop a network of service learning contacts and school partnerships;
- makes this information available to students about service learning opportunities;
- monitors student progress through 3 interview meetings;
- provides feedback to students;
- helps the students achieve their desired goals.

## Multilingual Learner (MLL) Education

Students identified as **Multilingual Learners (MLLs)** are tested and placed in **English classes designed for MLL**, which assist students in acquiring skills in listening, speaking, reading and writing, as well as skills needed to be successful in academic courses. Once designated as an MLL, students are tested yearly until they reach the CT State mandated English Mastery Standard. Bilingual courses are offered to Spanish-speaking MLLs who need Spanish support in learning content-area material. Bilingual support to complete content-area assignments is offered through our MLL Intervention Labs to Spanish speakers and, additionally to Haitian Creole speakers at BMHS.

For math, science, and social studies instruction, MLL are placed in classes of certified content teachers who have been trained in the effective strategies for teaching Multilingual Learners. These teachers teach the regular course content using specific strategies to provide MLL access to the curriculum. **MLLs who have reached Level 3 Overall on the LAS Links are encouraged to enroll in mainstream content classes; teachers provide supports so that students can access the content and be successful.**

### MLL Procedures

- NPS MLL Welcome Center at Central Office administers the English LAS Links, Spanish LAS Links, and a math placement test and takes into consideration prior educational history. A recommendation is made for the appropriate MLL English class.
- Results are disseminated to the schools and MLL Dept. Chairs work with other department chairs to determine course recommendations. If agreement cannot be reached, MLL Department Chairs make final recommendations. Registrar makes final decisions.

### LAS Links Placement Guidelines

English Foundations = No English/ low LAS Links Overall Level 1

English Development = LAS Links Overall Level 1 – 2

English Explorations = LAS Links Overall Level 2 – 3

English Literature = LAS Links Overall Level 3 – 4

Transition English = LAS Links Overall Level 3-5 with teacher recommendation

**Please note: Course sequences are guidelines and decisions for individual students should be based on prior education and department chair recommendation.**

### MLL Course Sequence by Content

Subject Area	First Course	Second Course	Third Course	Fourth Course	Fifth course
<b>English</b>	English Foundations	English Development	English Explorations	English Literature	<b>Transition English</b>
<b>Math</b>	MLL Math Foundations	MLL Intensified Algebra 1	MLL Algebra 2	MLL Geometry	
<b>Social Studies</b>	Bilingual (Spanish) World History <i>or</i> MLL World History	Bilingual (Spanish) US History <i>or</i> MLL US History	MLL Civics	Mainstream social studies class based on staff recommendation	
<b>Science</b>	MLL Earth and Integrated Physical Science	MLL Biology	MLL Chemistry	Mainstream science class based on staff recommendation	
<b>World Language</b>	MLL Foundations with Spanish Language gaps placed in Native Language Spanish 1  <b>OR</b> Other Native Language Spanish <i>or</i> other World Language course based on prior education, placement test, and/or Department Chair recommendation				

**Other important notes:**

- MLLs that arrive with no prior English experience and therefore need to enroll in English Foundations are required to have an in-take meeting(s) which includes MLL Department Chair or designee, school counselor, and registrar prior to the student being enrolled. The student and his or her family need to attend or be informed of the recommendations.
- **MLLs will follow the regular course sequence (English Foundations, English Development, English Explorations, English Literature, Transition English), unless it is recommended by the MLL teacher that the student either advance a level or take English Literature and Transition English concurrently.**
- MLLs in grade 12 enrolled in English Literature must be concurrently enrolled in Transition English.
- In order to graduate, MLLs must also successfully complete one course in the regular English Department (Transition English fulfills this requirement.)
- After completing Transition English, it is recommended that MLLs enroll in the English course (2, 3, 4) that is one below their current grade level. (Exception: they should not enroll in English I since the curriculum is equivalent to Transition English.)
- If an MLL fulfills the 4 credit English requirement before senior year, he or she must continue to enroll in a Core English class every year.

<b>EL4461GAG</b>	<b>English Development – Beginners</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
<b>*[Graduation Requirement: 1 credit Core English and 1 credit Pathway Related Course]</b>			

The course involves the sequential development of listening, speaking, reading and writing skills for students at the beginning and advanced beginning levels of English proficiency. Through a content-based approach, students acquire survival and basic communication, as well as reading and writing skills. **Successful completion gives the student one credit in English and one Pathway Related Course credit. Prerequisite: Students identified as Multilingual Learners.**

<b>EL4462GAE</b>	<b>English Explorations – Intermediate</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

This course is designed for students at the early intermediate level of English proficiency. Emphasis is placed on learning academic English – reading, writing, and grammar, especially related to the content areas. **Successful completion gives the student one credit in English.**

<b>EL4463GAE</b>	<b>English Literature – Advanced</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

This course is designed for students at the intermediate to advanced level of English proficiency. Continued emphasis is placed on learning academic English – reading, writing, and grammar, especially related to the content areas. **Successful completion gives the student one credit in English.**

<b>EN0017GA</b>	<b>Transition English</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

This course follows the English 1 curriculum but is designed for MLLs at the intermediate to advanced level of English proficiency. English teachers use instructional strategies that are effective with MLLs to prepare students to take a course in the English core sequence the following year with mainstream peers. The curriculum of English 1 is an exploration of the reading-writing connection. Students will use the writing process and technology to develop writing proficiency using four core and four ancillary titles of world literature selections. Students will also work on speaking and listening, vocabulary development, comprehension strategies, and logical thinking and study skills. All students will be required to maintain a writing portfolio, keeping on file a variety of writing assignments to be reviewed periodically. **Successful completion gives the student one credit in English.**

<b>EL0012GAE</b>	<b>English Literacy Workshop 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This course is primarily based on *System 44*, a research-based reading intervention program that is proven to help students master the foundational reading skills required for success through explicit instruction in phonics, comprehension, and writing. Instruction will be differentiated and tailored to the individual needs of each student. The model includes experiences in whole and small group instruction, independent reading, and technology-based learning.

<b>EL4471GAE</b>	<b>Bilingual World History</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is a survey of World History from its origins to the 21<sup>st</sup> century, conducted in Spanish and English. It includes historical development of economics, and political, social and religious institutions with an emphasis on geography's impact on historical and cultural development. **Prerequisite: Participation in the Bilingual (Spanish) Program. This course should be taken in conjunction with English Foundations, English Development, or English Explorations.**

<b>EL4472GAE</b>	<b>Bilingual US History</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: US History Requirement]</b>			

This course conducted in Spanish and English, is designed for Multilingual Learners and surveys the development of the American political, socio-cultural, and economic landscapes beginning with the exploration of the Americas until today. Students concentrate on specific time periods through American history with emphasis on important events and critical ideas. **Prerequisite: Participation in the Bilingual (Spanish) program. This course should be taken in conjunction with English Foundations, English Development, or English Explorations.**

<b>EL4474GAE</b>	<b>MLL World History</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is designed for Multilingual Learners and is a survey of World History from its origins to the 21<sup>st</sup> century. It includes historical development of economics, and political, social and religious institutions with an emphasis on geography's impact on historical and cultural development. **This course should be taken in conjunction with English Foundations, English Development, or English Explorations. Students in the English Literature or Transition English course should take regular social studies classes.**

<b>EL4475GAE</b>	<b>MLL US History</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: US History Requirement]</b>			

This course is designed for Multilingual Learners and surveys the development of the American political, socio-cultural, and economic landscapes beginning with the exploration of the Americas until today. Students concentrate on specific time periods throughout American History with emphasis on important events and critical ideas. **This course should be taken in conjunction with English Foundations, English Development, or English Explorations. Students in the English Literature or Transition English course should take regular social studies classes.**

<b>EL2237GAC</b>	<b>MLL Civics</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Civics Requirement]</b>			

This course is designed for Multilingual Learners and surveys the origins and institutions of the US Government. Emphasis is placed on the political organization and structure of our national, state and local governments as well as their development. The Constitution and its interpretation are studied through the use of Supreme Court decisions. Analysis and interpretation of outside readings are required. Students are encouraged to actively participate in the democratic process and will be given an opportunity to participate in the governmental process through fieldwork projects. **Prerequisite: This course should be taken upon completion of Bilingual/MLL World History & Bilingual/MLL U.S. History.**

<b>EL1113GAG</b>	<b>MLL Intensified Algebra 1</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
<b>*[Graduation Requirement: 1 credit Core Math and 1 credit Math Related Course or STEM Related Course]</b>			

This course is designed for Multilingual Learners and examines real world problems using tables, graphs, and equations. Topics include number patterns, linear equations, proportions and percent, positive and negative numbers, writing formulas, slopes and intercepts, data analysis, systems of linear equations, common laws of exponents and probability and statistics.

	<b>MLL Algebra 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit; Math Related Course; STEM Related Course]</b>			

This course is designed for Multilingual Learners and the major theme is functions. The concept of functionality will be developed fully and includes a study of linear, quadratic, exponential, and polynomial. Also included in this course is content with probability and statistics. **Prerequisite: Intensified Algebra 1 or Algebra 1. May be taken concurrently with Geometry.**



<b>EL1137GAE</b>	<b>MLL Geometry</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core Math]</b>			

This course approaches the concepts of Geometry in a visual and interactive way. This course is fully aligned to the Connecticut Core Standards. Topics include: Transformations and the Coordinate Plane, Congruence, Proof and Constructions; Polygons; Similarity, Proof, and Trigonometry; Circles and other Conic Sections; Extensions to Three Dimensions; and Applications of Probability. **Prerequisite: MLL Algebra 2**

<b>EL3320GAE</b>	<b>MLL Biology</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Biology/Life Science (Lab)]</b>			

This course is designed for Multilingual Learners with emphasis of study placed on the biochemical, physiological, morphological, ecological, bacteriological, embryonic, nutritional, pathological and biographical natures of life. Upon completion of this course a student will have a knowledge of the principles on which all life depends, and an awareness of the interdependency of organisms in the biological world with reference to the balance of nature and conservation.

<b>EL3345GAE</b>	<b>MLL Chemistry</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Chemistry/Physical Science (Lab)]</b>			

This course is designed for Multilingual Learners and includes topics similar to those in college prep level Chemistry. Those include: properties of materials, the transformations which matter undergoes, the conditions affecting those transformations and the nature and amount of energy released or absorbed in these changes, the uses of materials and creation of new substances. Students will learn the NGSS Standards focused on Chemical Reactions. Emphasis is placed upon mathematical application to chemistry and laboratory work. **Prerequisite: MLL Biology**

<b>EL3304GAE</b>	<b>MLL Earth and Integrated Physical Science (Lab Science)</b>	<b>Grade 9 (10, 11, if newly arrived)</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Chemistry/Physical Science; Science Related Course; STEM Related Course]</b>			

This course is designed for Multilingual Learners and will focus on language acquisition, science skills, and scientific knowledge construction. It will emphasize students' understanding of the interconnections and feedbacks among the geosphere, hydrosphere, atmosphere, and anthroposphere as well as the physical aspects of motion, energy, forces, and waves and technology. Students will study climate systems and climate change, the human impacts on Earth systems and issues of human sustainability, current global and regional data sets, the systems and transfer of energy, laws of force and motion, and waves and technological applications. Students will make projections for the future, analyze space systems and research, and use engineering design concepts to evaluate future societal choices in the earth, space, and physical sciences. Upon completion of this course a student will have a knowledge of principles including but not limited to: energy futures, resource management, space exploration and structures, land use, environmental impacts, pollution regulation, and applications of motion, waves, and energy. **Prerequisite: Biology and/or Chemistry. Co-requisite: English Foundations or English Development**

<b>EL0013GAC</b>	<b>MLL Culture and Career Seminar 1</b>	<b>Grade 9 (10, 11, if newly arrived)</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This one semester interdisciplinary course is designed as an introductory course for Multilingual Learners. They will learn and apply 21st century skills, laying a foundation which will be used during their high school years and are applicable in the real world. In addition to an introduction to career exploration, the curriculum will focus on 'skills for success' including: communication skills, organizational skills, civic responsibility, problem solving, personal development (such as collaboration and self-advocacy), technology skills, and researching skills. Students will be learning how to succeed in high school and how these skills can be applied throughout life.

<b>EL0014GAC</b>	<b>MLL Culture and Career Seminar 2</b>	<b>Grade 10, 11</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>			

This one semester interdisciplinary course continues to develop Multilingual Learners' skills for success with emphasis on post-secondary options. Students explore their passions and interests and how these interests might influence their career choices. They will start thinking about internship options and develop skills for resume writing and job interviews. They will also learn about the college application process and explore what different colleges have to offer. **Pre-requisite: MLL Culture and Career Seminar 1**

<b>EL5503GAC3</b>	<b>MLL Career Exploration Internship</b>	<b>Grades 11, 12</b>	<b>0.5 Credits</b>
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**\*[Graduation Requirement: Pathway Related Course]**

This one semester internship provides students with real-world career experiences and an opportunity to connect learning in the Culture and Careers Seminar 1 and 2 with the workplace. With support from the MLL Career Pathways Facilitator, students will be able to hone their work and life skills within American culture. The experience will enhance students' opportunities for post-secondary success in the job world. **Prerequisite: successful completion of Culture and Careers Seminar 1 and 2 or Teacher Recommendation.**

<b>EL008GAX3</b>	<b>MLL Intervention Lab</b>	<b>Grades 9, 10, 11, 12</b>	<b>0 Credits</b>
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**\*[Graduation Requirement: Pathway Related Course]**

This Lab is designed to give MLL students support in their academic courses. It should be taken concurrently with English Foundations and English Development, although other MLLs may enroll, especially if they enter Norwalk Public Schools after the start of the academic year.

**Norwalk International Academy (NIA) - for MLLs who are newly arrived to the USA and may have gaps in their education.**

<b>EL4300GAG</b>	<b>English Foundations</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
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**\*[Graduation Requirement: 1 credit Core English and 1 credit Pathway Related Course]**

This course provides intensive English instruction with emphasis on school routines, survival English, oral skills, literacy development and cultural orientation. **Successful completion gives the student one credit in English and one Pathway Related Course credit. The one related course credit does not fulfill the graduation requirement in English. Prerequisite: Students identified as Multilingual Learners with gaps in their education.**

<b>EL4301GAG</b>	<b>MLL Math Foundations</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
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**\*[Graduation Requirement: 1 credit Core Math and 1 credit Math Related Course or STEM Related Course]**

This course provides intensive Basic Math instruction with emphasis on the English and Math skills needed to prepare students for Algebra. **Successful completion gives the student one credit in Mathematics and one Pathway Related Course credit. The one related course credit does not fulfill graduation requirement in Mathematics. Prerequisite: Students identified as Multilingual Learners with gaps in their education.**

### Summer School for Multilingual Learners

This 120-hour intensive course is designed for Multilingual Learners enrolled in English Foundations, English Development, English Exploration, or English Literature who want to accelerate their acquisition of English during the summer months. **Students will receive either English credit or Pathway Related Course credit upon successful completion of the course.**

### Specialized Education

A full continuum of Special Education supports and related services are provided to students who have been identified as eligible under the criteria of Connecticut General Statute 10-76 and IDEA.

The majority of students with a disability meet the requirements for graduation through regular class placements with support from the special education instructional staff and/or student support personnel. Special education classes are available for other students with severe disabilities whose needs require intensive, explicit direct special education instruction which may include modification of curriculum, special education classes and programs are available to meet these needs. The appropriate classes or services provided in the Least Restrictive Environment to meet the needs of each individual student is a decision made by the Planning and Placement Team.

<b>Co-Taught English</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

These courses provide specially designed academic instruction in the general education English class by both the special education and general education teachers. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan. Depending upon PPT recommendations, a fully inclusive Cluster co-teaching program is available for students who meet the entry criteria and are entering grade 9 during the 2021-22 school year. **Note: Plan for 22-23 for NEST students.**

<b>Co-Taught Math</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

These courses in Intensified Algebra 1, Integrated Algebra and Intermediate Geometry provide specially designed academic instruction in the general education math class by both the special education and general education teachers. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan. Depending upon PPT recommendations, a fully inclusive Cluster co-teaching program is available for students who meet the entry criteria and are entering grade 9 during the 2021-22 school year. **Note: Plan for 22-23 for NEST students.**

<b>Co-Taught Science</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

These courses in Biology, Earth and Integrated Physical Science and Chemistry provides specially designed academic instruction in the general education science class by both the special education and general education teachers. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan. Depending upon PPT recommendations, a fully inclusive Cluster co-teaching program is available for students who meet the entry criteria and are entering grade 9 during the 2021-22 school year. **Note: Plan for 22-23 for NEST students.**

<b>Co-Taught Social Studies</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

These courses in World History, US History, Current Issues/ Civics provide specially designed academic instruction in the general education social studies class by both the special education and general education teachers. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan. Depending upon PPT recommendations, a fully inclusive Cluster co-teaching program is available for students who meet the entry criteria and are entering grade 9 during the 2021-22 school year. **Note: Plan for 22-23 for NEST students.**

<b>NK9402GRE</b>	<b>Specialized Reading</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

Research based direct reading instruction intervention provided in a special education class, specially designed to meet students' specific skill needs in the area of reading. This course provides direct instruction and may be supplemented with access to remote interventions and provide continuous progress monitoring in literacy skill acquisition. Placement in this course is based on an extensive literacy assessment and the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan.

NK9407GRC NK9408GRC *[Graduation Requirement per PPT]	Academic Assistance	Grades 9, 10, 11, 12	0.5 Credit
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Students will receive small group supplementary instruction focusing on the IEP goals in the areas of executive functioning skills, academic self-management skills, self-advocacy, notetaking, research and written, oral or visual presentation skills. Time management skills are addressed to support independent completion of coursework, projects and homework assignments as applied across general education curriculum areas. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan consistent with goals and objectives.

NK	Consultant Teacher Services	Grades 9, 10, 11, 12	0 Credit
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These supports and services provide direct or indirect specially designed academic intervention for students in the general education English, Math, Science, or Social Studies courses. Provided by the special education teacher in consultation with the general education teacher. Indirect services are provided to the general education teacher to assist with the development and implementation of accommodations, while direct services may be provided within the general education classroom. Consultant teacher services in specific courses are based upon the recommendations of The Planning and Placement Team as designated in the students' Individual Educational Plan. The availability of this service is based upon individual student need. Services are provided to support success in the general education pathway or in senior courses required for graduation.

### INCLUSIVE CLUSTER

IC Co-Taught Science	1 Credit
IC Co-Taught Social Studies	1 Credit
IC Co-Taught English	1 Credit
IC Co-Taught Math	1 Credit
IC Academic Assistance	1 Credit

\*[Graduation Requirement per PPT]

The Inclusive Cluster (IC) provides supports and services of direct co-teaching for specially designed academic intervention for students in the general education English, Math, Science, or Social Studies courses. Students may be recommended for the IC cluster for three or four Core co-teaching classes provided by a common Special Education Teacher across content areas, acting as the case manager and who also provides one period of Academic Assistance to students within the IC cluster. Supports are provided by the special education teacher and the general education teacher. IC courses are implemented based upon the recommendations of The Planning and Placement Team as designated in the students' Individual Educational Plan. The availability of this service is based upon individual student need. **Consider program design for NEST in 22-23.**

### ESSENTIALS CLASSES

ESSENTIALS OF English I, II, III, IV	Grades 9 – 12	1 Credit
ESSENTIALS OF Math I, II, III	Grades 9 – 12	1 Credit
ESSENTIALS OF Science I, II, III	Grades 9 – 12	1 Credit
ESSENTIALS OF Social Studies I, II, III	Grades 9 – 12	1 Credit

These courses provide direct special education instruction in a special education class to develop, maintain and apply skills in English (reading/ writing), math, science, and/or social studies coursework for students with moderate to severe disabilities who cannot benefit from instruction in the general education classroom even with intensive special education supports and services. Course content is consistent with state standards and ensures access to the general education curriculum. It is anticipated that with this intensive intervention, students will be prepared to return to general education classes with significant specialized supports and services. Ongoing consistent progress monitoring is utilized to guide decisions to return students to more integrated settings. Materials and instructional techniques are differentiated, individualized, and adapted to individual student need. Instruction may be provided individually, small group, or class wide. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan.

## PRACTICAL CLASSES

These courses provide direct special education instruction in a special education class to develop functional skills, and to maintain and apply independent skills in generalized settings. Classes provide practical coursework in English (reading/ writing), Math, Science, and/or Social Studies as well as pre-vocational, vocational and life skills. Materials and instructional techniques are differentiated, individualized, and adapted to individual student need. Instruction may be provided individually, small group, or class wide. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan. Students may use this coursework towards HS graduation requirements. **Students typically are recommended for Alternative Assessment based upon SDE criteria for consideration by the PPT.**

<b>NK940</b>	<b>Community and Civic Engagement I, II, III, IV</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

Students experience the practical application of social studies curriculum including world history related to family cultures and history, American History

	<b>Practical English I, II, III, IV</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

Students experience the practical application of English curriculum including functional reading and writing skills related to daily living and vocational literacy requirements.

	<b>Practical Math I, II, III, IV</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

Students experience the practical application of Math curriculum including time, numeracy, money, measurement skills and personal finance planning related to independent daily living skills and requirements for successful vocational experiences.

<b>NK9404GRE</b>	<b>Daily Living Skills I, II, III, IV</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

This course provides direct special education instruction in a special education class to develop, maintain and generalize skills leading to independence across settings including school, community and workplace. Instruction emphasizes independent living and self-help skills including; health/nutrition, hygiene, grooming, money management, self-advocacy, domestic skills (e.g. cooking, shopping, housekeeping), pragmatic communication skills, and appropriate leisure time skills. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan.

<b>NK9405GRE</b>	<b>Pre-Vocational/Vocational Skills</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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**\*[Graduation Requirement per PPT]**

This course provides direct special education instruction in a special education PAES Lab (Practical Assessment Exploration System), community, or workplace to provide students the pre-vocational and vocational skills necessary for entry level competitive or supported employment. The PAES program provides training on both employment skills and independent living skills using a performance –based assessment designed to guide the student in the process of transition from school to the real world; while developing work behavior skills. Based on individual needs and interests this course includes an introduction to career opportunities, resume writing and applications, interviewing skills, technical skills for specific job training requirements, soft skills including workplace behavior standards, self-advocacy in the workplace, work ethics, and problem solving skills. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan.

<b>NK9406GRA</b>	<b>Adaptive Physical Education</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
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**\*[Graduation Requirement per PPT]**

Adaptive PE will be provided in accordance with the student's Individualized Educational Plan. Physical Education is a comprehensive program that teaches students the skills and concepts necessary to lead a healthy lifestyle. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan.

<b>BMHS ONLY</b>	<b>Peer Assisted PE</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
<b>BMHS ONLY</b>	<b>Peer Assisted Art</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>BMHS ONLY</b>	<b>Peer Assisted Health II</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
<b>BMHS ONLY</b>	<b>Integrated Culinary Arts</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

Student with disabilities are integrated into Physical Education, Health, Art, and Garden to Table therefore providing access to adapted coursework supported by the teaching team and peer mentors in consultation with special educators. In addition, peer mentors receive valuable experience in career exploration for those students interested in pursuing a career in general or special education, physical/occupational therapy, and other health related fields. Prerequisite for peer mentors: previous art course or PE/Health Course or previous culinary arts course. Courses will run based on enrollment and staff availability.

#### **THERAPUTIC INTERVENTION PROGRAM**

<b>Therapeutic Intervention Program English I, II, III, IV</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>Therapeutic Intervention Program Math I, II, III</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>Therapeutic Intervention Program Science I, II, III</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>Therapeutic Intervention Program Social Studies I, II, III</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>Therapeutic Intervention Program Academic/ Social Support I, II, III, IV</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement per PPT]</b>		

The Therapeutic Success Program provides small group special education instruction in core academic subjects with moderate to severe social-emotional disabilities who cannot benefit from instruction in the general education classroom even with intensive special education supports and services.

These courses are designed to provide specialized instruction within a special education class providing embedded social emotional learning, self-management skills, program wide positive behavior strategies including DBT (Dialectical Behavior Therapy) curriculum. DBT develops skills in interpersonal effectiveness, distress tolerance, emotional regulation, and mindfulness skills. Students may participate in one to five classes per day; English, math, social studies, science, or academic/ social emotional support class. Course content is consistent with state standards and ensures access to the general education curriculum with social/emotional and DBT skills incorporated throughout the day. It is anticipated that with intensive therapeutic intervention, students will be prepared to return to general education classes with significant specialized supports and services. Ongoing consistent progress monitoring in areas of academics and social/emotional/behavioral skills are utilized to guide decisions to students to more integrated settings. Materials and instructional techniques are differentiated, individualized, and adapted to individual student needs. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan.

<b>NORWALK NEXT STEPS (18-22 Transition Program) (until the student's 22nd birthday)</b>	<b>Grades 12 +</b>	<b>0 Credit</b>
<b>*[Graduation Requirement per PPT]</b>		

The goal of the 18-21 program is to develop soft skills to enable successful workplace experiences with increased independence, via fading of school supervision supports while increasing access to natural supports in the community. The transition program will provide a variety of work-place experiences to develop entry level job specific skill sets leading to competitive of supported employment. Independent living skills including travel, money management and hygiene appropriate to the worksite will also be addressed. These skills across all domains will be enhanced via access to smart electronic devices to facilitate travel (GPS), communication (e-mail, text, phone) and time management (electronic calendars and schedules). Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan.

<b>NK9406GRA</b>	<b>Project SEARCH</b>	<b>Grades 12+</b>	<b>0 Credit</b>
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A community based program on site at NCC (Norwalk Community College) designed for students with natural workplace supports and consultation by the special education teaching team. Students receive daily small group instruction in soft skill development while participating in 3 internships a year leading to competitive, marketable, transferable skills in real work settings. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan upon the students last year of IDEA eligibility

**CGS**  
***Center for Global Studies***  
***at Brien McMahon High School***  
**An Interdistrict Magnet School**

DRAFT



**Entrance to the Center for Global Studies is by application only. Students currently in grades 8, 9, 10, and 11 may apply. Applications available at [centerforglobalstudies.norwalkps.org](http://centerforglobalstudies.norwalkps.org). For more information, call 203-852-9488 option 2.**

The Center for Global Studies (CGS) is an inter-district magnet school for grades 9-12 housed in Brien McMahon High School (BMHS). CGS provides students from Fairfield County schools the opportunity to study Chinese, Japanese, and Arabic languages and culture. All CGS courses include a focus on international-mindedness. Science and additional elective courses that incorporate a global theme are offered in cooperation with BMHS. All CGS students are eligible to participate in the globally-themed International Baccalaureate Diploma Program.

CGS emphasizes international-mindedness through experiential learning. We have nine sister-schools in China, Japan, Qatar, Egypt, and Morocco, and each year, our students travel to Japan, China, or the Middle East for a two-week home stay and study tour with a sister school. Students live with families, attend classes, and spend time traveling to historic and cultural sites related to the CGS curriculum. Students may also elect to attend a project-based social/cultural trip to India or Korea, an eco-trip to Rwanda, or a service trip to Guatemala or Puerto Rico. Our curriculum includes global performers and field trips that emphasize international-mindedness.

As part of our ongoing annual exchange, CGS families host high school students from our sister schools in China, Japan, Qatar, Egypt, or Morocco. These students stay in CGS family homes and attend classes alongside their CGS host sibling.

**CGS Students are eligible for a Connecticut Certificate of Global Engagement [*Civic and Global Engagement Pathway*] which requires:**

Globally-Focused Coursework (at least 7.0 credits or demonstration of mastery)

- **World language coursework** (at least 3 years of high school equivalent study in one or more world languages.)
- **Social Studies, English language arts and other coursework** (at least 4 credits of coursework – or demonstration of mastery) in courses with a global focus, which may include courses on: international economics, business, or marketing; international or foreign affairs; world/non-US history; world geography; comparative cultures or religions; science or technology courses with global perspective; literature of another country, region, or culture; music, drama, and visual arts with international perspective; other disciplines and courses with an international focus.

Globally-Focused Student Activities (participation in at least one or more co-curricular activities over at least 3 years of their high school experience). These may include participating in: local or remote engagement with individuals from other countries that is regular and direct (pen pals, Skype, school/community-based organizations); language clubs or honor societies; internationally focused clubs; internationally themed programs/competitions for high school students (Model UN, DECA); language immersion programs; travel abroad or educational tour; international exchange program as student or host.

Global Service Learning or Action Project (completion of a global/cross-cultural public service project involving at least 20 hours of work, connected to a global community or issue). Documents such as time logs, project description sheets...etc. need to be completed.



## CGS Required Courses

### Class of 2021 and 2022 (25 credit requirement)

Humanities (World Literature, Social Studies, Fine Arts, World Language) 13.5 Total

4.0 World Literature

4.0 World Language (Arabic, Chinese, or Japanese)

1.0 World History

0.5 World Language Seminar

1.0 US History

0.5 Civic Engagement

0.5 Cultural Anthropology (exemption if enrolled in IB History)

0.5 IB Theory of Knowledge OR History of East Asia/History of Middle East

0.5 Honors Global Public Speaking

1.0 Fine Arts (Art, Cooking, Film, Theatre)

STEM (Science, Technology, Engineering, Math) 9.0 Total

4.0 Math (includes Integrated Math, Statistics, or other math courses)

1.0 Life Science (lab)

1.0 Physical Science/Earth Science (lab)

1.0 Other Science

2.0 STEM Related Course (including 0.5 Digital Literacy Requirement)

Physical Education and Wellness; Health and Safety 2.0 Total

1.0 Physical Education

1.0 Health and Safety

Additional Electives 1.0 Total

25.0 Total Credits Required for Graduation [No Capstone Experience Required]

### Class of 2023 and Beyond (26 credit requirement)

Same basic requirements as the Classes of 2020 and 2021, and 1.0 credit is added to fulfill the Capstone Requirement (mastery-based diploma assessment).

+ 1.0 Capstone Experience

26.0 Total Credits Required for Graduation

# Course Descriptions

## Literature Courses

<b>EN0081GAE</b>	<b>World Literature 1</b>	<b>Grade 9</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

World Literature offers students a survey of world cultures, with specific attention to Japanese, Chinese, and Middle East cultures, through the genres of the short story, drama, novel, poetry and non-fiction. The teaching approach is student-centered, with an emphasis on seminars and portfolio-writing. All students are expected to participate as active learners. This is a challenging course designed for college-bound students.

<b>EN0081HAE</b>	<b>Honors World Literature 1</b>	<b>Grade 9</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

Honors World Literature offers students a survey of world cultures, with specific attention to Japanese, Chinese, and Middle East cultures, through the genres of the short story, drama, novel, poetry and non-fiction. The teaching approach is student-centered, with an emphasis on seminars and portfolio-writing. Students are required to make frequent presentations, engage in high-level close reading, and analytical and creative writing, and gain skills that will prepare them for the International Baccalaureate Diploma Program. This is a challenging course designed for college-bound students.

<b>EN0082GAE</b>	<b>World Literature 2</b>	<b>Grade 10</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

World Literature 2 offers students a seminar-style investigation of world cultures through international works of literature. Students acquire the skills and develop the vocabulary necessary to read the major genres of literature: the novel, short story, drama, poetry, essay, and biography. Students study various techniques of developing and researching a topic and will write papers and develop multimedia presentations using these skills. Instruction will focus on response writing and the persuasive essay. Grammar, vocabulary, and oral communication will also be emphasized.

<b>EN0086GAE</b>	<b>Honors World Literature 2</b>	<b>Grade 10</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

Honors World Literature 2 offers a seminar-style investigation of world cultures through international works of literature. This accelerated English course consists of an in-depth analysis of challenging classical and contemporary texts. The course will stress the writing process and include a portfolio so that students may reflect and improve upon their own work. Students acquire the skills and develop the vocabulary necessary to read the major genres of literature: the novel, short story, drama, poetry, essay, and biography. Students study various techniques of developing and researching a topic, write papers, and develop multimedia presentations using these skills. Instruction will focus on response writing and the persuasive essay. Grammar, vocabulary, and oral communication will also be emphasized. The course will provide an intense educational opportunity for qualified, highly-motivated students.

<b>EN0083GAE</b>	<b>Honors World Literature 3</b>	<b>Grade 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

World Literature 3 offers students a seminar-style investigation of world cultures through international works of literature and literary non-fiction. Through their reading, discussion, and writing, students will develop an awareness of important contemporary global social issues and consider the impact of their own voice on the world. Students will develop research skills and use the writing process to develop creative, analytical, and persuasive pieces, culminating in a final portfolio.

<b>EN0084GAE</b>	<b>Honors World Literature 4</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Core English]</b>			

This course will consist of a concentrated study of world literary selections using a thematic approach. Emphasis will be placed on analysis of the works of major poets, playwrights, novelists, essayists, and public speakers as a basis for written and oral interpretation. Students will design and facilitate whole-school seminars and develop and deliver a final CGS capstone project. In-depth reading, listening, vocabulary, and speaking skills will continue to be developed in preparation for college-level work. Students will participate in a college entrance essay-writing workshop.

EN0051ICE	IB Language and Literature HL Y1	Grades 11	1 Credit
EN0052ICE	IB Language and Literature SL Y1	Grades 11	1 Credit
EN0112ICE	IB Language and Literature HL Y2	Grades 12	1 Credit
EN0113ICE	IB Language and Literature SL Y2	Grades 12	1 Credit

**\*[Graduation Requirements: Core English]**

The English Literature and Language course synthesizes the IB mission through the study of the English language and its linguistic structure. Through challenging, active learning this two-year college-level course develops students' understanding of both oral and written discourse, with a focus on expanding their analytic and composition skills. The course includes a wide range of literature from various global cultures. Through literary criticism and analysis, students will examine conflict and challenges within a multicultural context, providing students an opportunity to broaden their perspective on literature and humanity.

In this course, students respond reflectively, speak with empathy, listen actively, and communicate with a heightened global understanding. Ultimately, the activities and tasks will underscore international awareness and develop qualities outlined in the IB learner profile. Coursework is drawn from IB prescribed list. **Prerequisite: Honors World Literature 2**

EN0096GAC6	Honors Global Public Speaking	Grades 9, 10, 11, 12	0.5 Credit
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**\*[Graduation Requirement: Pathway Related Course] \*Dual Enrollment Course with University of Bridgeport**

This practice-based course will focus on the basic rules of effective *western* public speaking. Students will learn and practice different genres and forms of public speaking—ranging from informal to formal occasions, from informative to persuasive genres— with an emphasis on how to adjust these techniques when communicating with people from other cultures (particularly Asian countries). This will include effective communicating and speaking via technology, such as video conferencing. Topics will include cultural conventions and speech, perceptions of others, verbal and nonverbal messages, and techniques of oral presentation and persuasion. Students will learn how to research, outline, and deliver short, informal presentations as well as longer speeches.

### Social Studies Courses

SS2210GAE6	Survey in World History	Grades 9, 10, 11, 12	1 Credit
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**\*[Graduation Requirement: Social Studies Related Course]**

This course is a survey of world history that uses comparative history as a lens for understanding the historical development of economic, political, social and religious institutions. The course emphasizes geography's impact on historical and cultural development. Students will conduct in-depth studies of themes in world history, focusing particularly on the history of China, Japan, and the Middle East. Students will learn how to conduct research, analyze primary and secondary sources, write a research paper, and/or complete a research project.

SS2211HAE6	Honors Survey in World History	Grades 9, 10, 11, 12	1 Credit
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**\*[Graduation Requirement: Social Studies Related Course]**

This course is a survey of world history that uses comparative history as a lens for understanding the historical development of economic, political, social and religious institutions. The course emphasizes geography's impact on historical and cultural development. Students will conduct in-depth studies of themes in world history, focusing particularly on the history of China, Japan, and the Middle East. Students will learn how to conduct research, analyze primary and secondary sources, write a research paper, and/or complete a research project.

TBD	US History in Global Contexts	Grades 10, 11, 12	1 Credit
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**\*[Graduation Requirement: US History/Social Studies Related Course]**

This course presents US History situated within a global framework. Students will primarily examine how issues in the 21st Century are the result of national and global historical events and decisions, and how those issues affect students' lives today. Students will consider how major events in US History are a product of global movements, and how decisions made within the US have affected people, nations, and movements around the world. This college preparatory course includes several research experiences.

<b>SS2238GAE6</b>	<b>Honors US History in Global Context</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: US History/Social Studies Related Course]</b>			

This course presents US History situated within a global framework. Students will explore how major events in US History are a product of global movements, and how decisions made within the US have affected people, nations, and movements around the world. Students will examine how issues in the 21st Century are byproducts of historical events and historical decisions. This college preparatory course includes a research paper.

<b>SS2267GAE6</b>	<b>Civic Engagement</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Civics/Social Studies Related Course]</b>			

Civic engagement introduces students to our national, state, and local governments and political organizations. Through the design and implementation of a self-selected civic engagement project, students learn the history of and current nuances of our nation’s political organization, the Constitution and its interpretation, and how individuals make change in our country. This fulfills the state requirement for Civics.

<b>SS2267HAC6</b>	<b>Honors Civic Engagement</b>	<b>Grades 10, 11, 12</b>	<b>0.5 credit</b>
<b>*[Graduation Requirement: Civics/Social Studies Related Course]</b>			

Thoughtful and effective engagement in a local, regional, or national community requires an understanding of the philosophical underpinnings and logical processes of a community’s governmental system. In this course, students will be introduced to the philosophy and governmental policies of the United States, and they will design and implement authentic civic engagement projects with the intent to effect change.

<b>SS2257HAC6</b>	<b>Honors Global Engagement</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

Honors Global Engagement is a mastery class, offering students the opportunity to learn about the design-cycle for independent projects and complete a project for a local, regional or global problem that they identify. Within the context of a supportive environment, students learn about their passions and interests and learn skills required to be independent thinkers, communicators, collaborators, and creative problem-solvers. To be successful in this course, students need to be motivated to work independently and think creatively. Students working within a global context have the opportunity to earn the Global Engagement Certificate; all students will have the opportunity to use the project for this course as their capstone project.

<b>SS2300ICE6</b>	<b>IB History Y1</b>	<b>Grades 11, 12</b>	<b>1 Credit per year</b>
<b>SS2304ICE6</b>	<b>IB History Y2</b>	<b>Grade 12</b>	
<b>*[ Graduation Requirement: Social Studies Related Course]</b>			

This Group 3 IB history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of political, economic, social and cultural history, and students will be required to synthesize, apply, and evaluate historical concepts across cultures and time periods. Year 1 of this course will focus on specific topics and case studies in world history, with particular attention during Year 2 to a specific region. As part of the synthesis process, students will make connections to our CGS study tours to Asia and Africa. IB courses are open to all students, with recommendation of a teacher.

<b>SS2254HAC</b>	<b>Honors Cultural Anthropology</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course encourages you to be “wakeful” to the world around you. Anthropologist Haley Duschinski describes “wakefulness” as a state of constant awareness. It is where you are not just learning about the world, but you are living on the threshold between insider and outsider; you observe, analyze, and critique a culture even as you are living within it. You will learn and practice this type of thinking through the methods of ethnographic fieldwork, which will culminate in a final, formal ethnographic research project and paper. **Prerequisite: Survey in World History.**

<b>SS2314GAE6</b>	<b>Digital Media and Production</b>		<b>Grades 9, 10, 11, 12</b>	<b>1 credit</b>
<b>*[Graduation Requirement: Social Studies Related course]</b>				

According to Common Sense Media, most teenagers spend about 9 hours a day interacting with a screen; to be informed and active world citizens, students should understand how digital media works on us and can work for us. The CGS digital media framework uses an integrated approach, encouraging student to make informed judgements and decisions in consuming and producing digital media in our contemporary, global society. The three major aims of the course include: systems themselves; application and practice of the creation of digital media.

<b>SS0057ICC6</b>	<b>IB Theory of Knowledge</b>	<b>Y1</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<b>SS0058ICC6</b>	<b>IB Theory of Knowledge</b>	<b>Y2</b>	<b>Grade 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Pathway Related Course]</b>				

IB Theory of Knowledge (TOK) is a college-like seminar course focused on improving students' ability to think critically about the world around them and to become global citizens who use their understanding of how humans create knowledge (how we know what we know) to make the world a better and more peaceful place. Students will explore knowledge systems of mathematics, human sciences, natural sciences, history, the arts, religious and indigenous knowledge systems, and ethics as understood through the lenses of emotion, reason, language, perceptions imagination, faith, intuition and memory. Throughout the course, students will make presentations that explore a knowledge question raised by a real-life situation, as well as write essays that apply their understanding of knowledge systems and the ways knowledge is obtained. The course material is rigorous and requires excellent written and oral communication skills. **IB Diploma students must enroll in 2 semesters of TOK. Non-diploma students must only enroll in the Y1 (spring) semester.**

<b>SS2284GAE</b>	<b>Japanese History</b>		<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>				

This course begins with an analysis of the impact of Japan's geography on its history, culture, and national character, followed by a chronological exploration of Japanese history from its ancient origins to the present. Important events and ideas will be explored through such activities as class discussions, analysis of Japanese and Western art and historical documents, and current events discussions. Whenever appropriate a comparative analysis of Japanese and U.S. history and society is included. There is a focus upon persuasive essay writing.

<b>SS2285GAE</b>	<b>History of the Middle East</b>		<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>				

This course is an introduction to the history and civilization of the modern Middle East (West Asia and North Africa) since about 1600 C.E. Students survey the early history of the region, beginning with the origins of Islam, and move to examine the great pre-modern empires, their collapse under European pressures, the renaissance of Middle Eastern culture in the eighteenth and nineteenth centuries, the move toward independent states in the nineteenth and twentieth centuries, and the newly resurgent "Islamicist" and "Pan-Arabist" ideologies of this century. Considerable attention is devoted to the region since 1945 and to the problems and promises of the present day.

<b>SS2289GAE</b>	<b>Chinese History</b>		<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>				

This course begins with an analysis of the impact of China's geography on its history, culture, and national character, followed by a chronological exploration of Chinese history from its ancient origins to the present. Important events and ideas will be explored through such activities as class discussions, analysis of Chinese and Western art and historical documents, and current events discussions. Whenever appropriate a comparative analysis of Chinese and U.S. history and society is included. There is a focus upon persuasive essay writing.

<b>SS2320GAE</b>	<b>East Asian History</b>		<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Social Studies Related Course]</b>				

This course begins with an analysis of the impact of East Asian geography on history, culture, and national character of China, Japan, and Korea and the surrounding areas, followed by a chronological exploration of the history of these countries from their ancient origins to the present. Important events and ideas will be explored through such activities as class discussions, analysis of Chinese, Japanese and Western art and historical documents, and current events discussions. Whenever appropriate a comparative analysis of East Asian and US History and society is included. There is a focus upon persuasive essay writing.

SS2291GAC	Globalization 1 - International Trade: Exploitation or Opportunity	Grades 10, 11, 12	0.5 Credit
SS2292GAC	Globalization 2 - Global Power and Influence: Who is in Charge	Grades 10, 11, 12	0.5 Credit
SS2293GAC	Globalization 3 - One World Culture or a Loss of National Identity	Grades 10, 11, 12	0.5 Credit
SS2294GAC	Globalization 4 - Human Rights and Inequality	Grades 10, 11, 12	0.5 Credit
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

The world is rapidly changing as new technology, political systems, economic ties, and cultural shifts transform the nations of the world. As people, ideas, knowledge, and goods move more easily around the globe, the experiences of people around the world become more similar. These courses, a combination of class seminars, which may be held after school and through on-line learning, offer students the opportunity to explore globalization and its effects on the economic, political and social structure of the present and future.

Students may enroll in any or all of 4 mini-courses, each offering .25 credit. Each mini-course, running for one quarter, will explore a different aspect of globalization and its effects. Students will be expected to devote 4 hours per week to reading, listening and viewing source material, and writing blog entries. In addition, the class will meet bi-weekly for face-to-face seminars.

SS2241ACE	Advanced Placement United States History	Grades 10, 11, 12	0.5 Credit
<b>*[Graduation Requirement: US History]</b>			

This one-year course will cover the history of the United States from the colonial period through the modern age in accordance with the College Board requirements for Advanced Placement United States History course. Focus will be placed on the major developments in political-constitutional economic and diplomatic history, as well as tracing developments in social, cultural and intellectual history through each major time period. Emphasis will be placed on drawing meaning from a wide variety of primary and secondary source documents and on the clarity of written expression. A college text will be used. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.** *Offered through our partnership with BMHS.*

SS2240ACE	ELUConn ECE AP United States History	Grades 10, 11, 12	0.5 Credit
<b>BMHS ONLY</b>	<b>*[Graduation Requirement: US History]</b>		

Surveys political, economic, social, and cultural developments in American history through the Civil War and Reconstruction. *Offered through our partnership with BMHS.* Covers: **UConn ECE HIST 1501 0.5 Credit UConn ECE HIST 1502 0.5 Credit**

SS2272GAC	Psychology 1	Grades 10, 11, 12	0.5 Credit
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

This course is a one-semester introductory survey of the field of human behavior. Topics include sensory awareness, perception, self-esteem, dreams, mediation, motivation, and the unconscious. Students use readings, experiments, roleplays, small and large group discussion, and projects to explore these areas of human behavior.

*Offered through our partnership with BMHS*

SS2283ACE	Advanced Placement Psychology	Grades 10, 11, 12	1 Credit
<b>*[Graduation Requirement: Social Studies Related Course]</b>			

The purpose of the Advanced Placement Psychology course is to introduce students to the systematic and scientific study of behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students are expected to take the Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade.

*Offered through partnership with BMHS.*

## Language Courses

<b>WL4485GAE</b>	<b>Japanese 1</b>		<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>				
This beginning course stresses the fundamental skills: listening, speaking, reading, and writing. Cultural aspects are explored at all levels. Students will complete individual projects on selected cultural topics.				
<b>WL4490HAE</b>	<b>Honors Japanese 1</b>		<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>				
This beginning course stresses the fundamental skills: listening, speaking, reading, and writing. Cultural aspects are explored at all levels. Students complete individual projects on selected cultural topics. Students should be prepared for frequent class presentations and reflection on their own performance.				
<b>WL4486GAE</b>	<b>Japanese 2</b>		<b>Grades 9, 10, 11, 12</b>	<b>1Credit</b>
<b>*[Graduation Requirement: World Language]</b>				
Continuation of the beginning course stresses the fundamental skills with greater emphasis on the natural use of the language in everyday situations. Reading selections are used to enhance vocabulary skills. Students further develop their cultural understanding. Students will complete individual projects on selected cultural topics. <b>Prerequisite: Japanese 1</b>				
<b>WL4491HAE</b>	<b>Honors Japanese 2</b>		<b>Grades 9, 10, 11, 12</b>	<b>1Credit</b>
<b>*[Graduation Requirement: World Language]</b>				
This class has an emphasis on further development of language skills. Students understand and are able to use some formulaic and onomatopoeic expressions in oral and written sentences. They start individual reading to develop skimming and scanning skills in order to get the gist of stories. Students complete individual projects on cultural topics. <b>Prerequisite: Japanese 1</b>				
<b>WL4487GAE</b>	<b>Japanese 3</b>		<b>Grades 9, 10, 11, 12</b>	<b>1Credit</b>
<b>*[Graduation Requirement: World Language]</b>				
In addition to the reinforcement and advancement of fundamental skills, students read a variety of documents in Japanese and are expected to use primarily Japanese in the classroom. Students complete individual projects on selected cultural topics. <b>Prerequisite: Japanese 2</b>				
<b>WL4488GAE</b>	<b>Japanese 4</b>		<b>Grades 9, 10, 11, 12</b>	<b>1Credit</b>
<b>*[Graduation Requirement: World Language]</b>				
Students completing Japanese 4 are able to handle any real-life situation in Japanese. Reading and writing are emphasized, and students are expected to use primarily Japanese in the classroom. <b>Prerequisite: Japanese 3</b>				
<b>WL4526ICE</b>	<b>IB Japanese Y1</b>	<b>ab initio / SL</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>WL4492HAE</b>	<b>Honors Japanese 3</b>		<b>Grade 10</b>	<b>1 Credit</b>
<b>WL4541ICE</b>	<b>IB Japanese Y2</b>	<b>ab initio / SL</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>				

Ab Initio: The IB Japanese ab initio / SL course is a two-year course. The main focus of this Japanese course is to continue developing students' abilities in the four skill areas of second language acquisition (reading, writing, listening, & speaking) across the three modes of communication (interpretive, interpersonal & presentational). This course is organized into multiple themes, which provide the students with opportunities to practice and explore the language as well as to develop intercultural understanding. Students will develop linguistic communicative skills and provides ample opportunities for students to practice the language skills of listening, speaking, reading and writing. Students will continue to understand and appreciate cultural diversity and develop insight into divergent ways of viewing the world. For SL, in addition to gaining an understanding of history, politics, literature, music & art, current events, linguistic variations, students will also be able to critically analyze issues that directly or indirectly impact the world community.

**Prerequisite: Honors Japanese 2**

<b>WL4498GAE</b>	<b>Chinese 1 (Mandarin)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This beginning course stresses the fundamental skills: listening, speaking, reading, and writing. Cultural aspects are explored at all levels. Students will complete individual projects on selected cultural topics.

<b>WL4503HAE</b>	<b>Honors Chinese 1 (Mandarin)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This beginning course stresses the fundamental skills: listening, speaking, reading, and writing. Cultural aspects are explored at all levels. Students complete individual projects on selected cultural topics. Students should be prepared for frequent class presentations and reflection on their own performance.

<b>WL4499GAE</b>	<b>Chinese 2 (Mandarin)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

Continuation of the beginning course stresses the fundamental skills with greater emphasis on the natural use of the language in everyday situations. Reading selections are used to enhance vocabulary skills. Students further develop their cultural understanding. Students will complete individual projects on selected cultural topics. **Prerequisite: Chinese 1**

<b>WL4504HAE</b>	<b>Honors Chinese 2 (Mandarin)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course develops the fundamental skills with greater emphasis on the natural use of language in everyday situations. Readings are selected to enhance vocabulary skills. Culture is further developed, and students' complete projects on selected topics.

**Prerequisite: Chinese 1**

<b>WL4500GAE</b>	<b>Chinese 3 (Mandarin)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

In addition to the reinforcement and advancement of fundamental skills, students read a variety of documents in Chinese and are expected to use primarily Chinese in the classroom. Students complete individual projects on selected cultural topics. **Prerequisite: Chinese 2**

<b>WL4501GAE</b>	<b>Chinese 4 (Mandarin)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

Students completing Chinese 4 are able to handle any real-life situation in Chinese. Reading and writing are emphasized, and students are expected to use primarily Chinese in the classroom. **Prerequisite: Chinese 3**

<b>WL4525ICE</b>	<b>IB Chinese Y1</b>	<b>ab initio / SL</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>WL4505HAE</b>	<b>Honors Chinese 3</b>		<b>Grade 10</b>	<b>1 Credit</b>
<b>WL4546ICE</b>	<b>IB Chinese Y2</b>	<b>ab initio / SL</b>	<b>Grades 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>				

Ab Initio: The IB Chinese ab initio / SL course is a two-year course. The main focus of this Chinese course is to continue developing students' abilities in the four skill areas of second language acquisition (reading, writing, listening, & speaking) across the three modes of communication (interpretive, interpersonal & presentational). This course is organized into multiple themes, which provide the students with opportunities to practice and explore the language as well as to develop intercultural understanding. Students will develop linguistic communicative skills and provides ample opportunities for students to practice the language skills of listening, speaking, reading and writing plus Chinese word processing. Students will continue to understand and appreciate cultural diversity and develop insight into divergent ways of viewing the world. For SL, in addition to gaining an understanding of history, politics, literature, music & art, current events, linguistic variations, students will also be able to critically analyze issues that directly or indirectly impact the world community. **Prerequisite: Honors Chinese 2.**

<b>WL4510GAE</b>	<b>Arabic 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This beginning course stresses the fundamental skills: listening, speaking, reading, and writing. Cultural aspects are explored at all levels. Students complete individual projects on selected cultural topics.



<b>WL4515HAE</b>	<b>Honors Arabic 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This beginning course stresses the fundamental skills: listening, speaking, reading, and writing. Cultural aspects are explored at all levels. Students complete individual projects on selected cultural topics. Students should be prepared for frequent class presentations and reflection on their own performance.

<b>WL4511GAE</b>	<b>Arabic 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course builds upon skills learned in Arabic 1. It deals with fundamental skills and emphasizes basic conversation. A higher level of proficiency in reading, writing, and conversation will be developed. Students will build their grammatical skills and their cultural knowledge and learn to read and interpret simple documents in Arabic. **Prerequisite: Arabic 1.**

<b>WL4514HAE</b>	<b>Honors Arabic 2</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course builds upon skills learned in Arabic 1. This class has an emphasis on further development of language skills. Students understand and are able to use some formulaic and onomatopoeic expressions in oral and written sentences. They start individual reading to develop skimming and scanning skills in order to obtain a basic understanding of stories. Students complete individual projects on cultural topics. **Prerequisite: Arabic 1.**

<b>WL4512GAE</b>	<b>Arabic 3</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course is designed to improve students' speaking, writing and reading skills through an in-depth applied study of grammar, increased familiarity with figures speech and style, and development of advanced skills in pronunciation. The course aims at improving the student's linguistic competence in preparation for further Arabic studies. **Prerequisite: Arabic 2.**

<b>WL4513GAE</b>	<b>Arabic 4</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>			

This course focuses on further language skills through reading and writing as well as improving fluency in oral communication. It includes the study of Arabic prose and poetry texts. Oral presentations and written reports are required. The aim of this course is to improve students' ability to read, write, and understand correct, simple and practical modern Arabic. **Prerequisite: Arabic 3.**

<b>WL4527ICE</b>	<b>IB Arabic Y1</b>	<b>ab initio</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>WL4548ICE</b>	<b>IB Arabic Y2</b>	<b>ab initio</b>	<b>Grade 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: World Language]</b>				

The IB Arabic ab initio / course is a two-year course. The main focus of this Arabic course is to continue developing students' abilities in the four skill areas of second language acquisition (reading, writing, listening, & speaking) across the three modes of communication (interpretive, interpersonal & presentational). This course is organized into multiple themes, which provide the students with opportunities to practice and explore the language as well as to develop intercultural understanding. Students will develop linguistic communicative skills and provides ample opportunities for students to practice the language skills of listening, speaking, reading and writing. Students will continue to understand and appreciate cultural diversity and develop insight into divergent ways of viewing the world. **Prerequisite: Honors Arabic 2 or approval from the instructor.**

<b>WL4496GAE3</b>	<b>CGS Independent Study</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
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For those students who attend a CGS Study Tour, a grade will be given based on the student's study tour project, including participation in the study tour seminars, after school meetings, the study tour itself, the research project, and keeping up with work missed while on the study tour, among other things.

### Mathematics Courses

<b>MA1200GAE6</b>	<b>Integrated Math A Y1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>MA1201GAE6</b>	<b>Integrated Math A Y2</b>		
<b>*[Graduation Requirement: Core Math and STEM]</b>			

Students focus on linear equations in one variable, linear functions, linear equations in two variables, systems of two linear equations in two variables, linear equalities in one or two variables, linear regressions, and equivalent transformations, inequalities, and non-

linear inequalities. Students are introduced to data analysis, including ratios, rates, proportional relationships and units; percentages. They also begin learning quadratic and exponential functions and rational functions. Students are introduced to probability and statistics, including simple probability, conditional probability, and probability systems, and inference from sample statistics and margin of error. Students find and make arithmetic and geometric patterns and sequences. Students are introduced to radical equations. **Prerequisite: Pre-Algebra or equivalent**

<b>MA1201GAE6</b>	<b>Integrated Math B Y1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>MA1217GAE6</b>	<b>Integrated Math B Y2</b>		
<b>*[Graduation Requirement: Core Math and STEM]</b>			

Students continue their study of linear equations, revisiting linear equations and inequalities in one or two variables. Students continue study of data analysis, with one-variable data and two-variable data, including a focus on models and scatterplots, and further develop their understanding of quadratic and exponential functions, and simple rational functions. Students are introduced to radical equations. Geometric concepts are further explored, such as area and volume; lines, angles, and triangles; right triangles and trigonometry; circles; complex numbers, and the Pythagorean theorem. **Prerequisite: Algebra 1 or equivalent, or Integrated Math A**

<b>MA1202HAE6</b>	<b>Honors Integrated Math C Y1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>MA1204HAE6</b>	<b>Honors Integrated Math C Y2</b>		
<b>*[Graduation Requirement: Core Math and STEM]</b>			

Students continue their study of linear equations, revisiting linear equations and inequalities in one or two variables. Students continue study of data analysis, with one-variable data and two-variable data, including a focus on models and scatterplots. Geometric concepts are further explored, such as area and volume; lines, angles, and triangles; right triangles and trigonometry; circles and volumes of 3D shapes; complex numbers, and the Pythagorean Theorem. Students also practice using quadratic and exponential functions, simple rational functions, and radical equations. Students learn to use trigonometric concepts, including logarithms, and sine and cosine, and trigonometric functions and identities. **Prerequisite: Honors Geometry or equivalent, or Integrated Math B**

#### IB Group 5: Math

<b>BMHS ONLY</b>	<b>IB Math: Analysis and Approaches HL Y1</b>	<b>Grades 11, 12</b>	<b>1 Credit per year</b>
	<b>IB Math: Analysis and Approaches HL Y2</b>		
<b>*[Graduation Requirement: Math Core, Math Elective; STEM Elective]</b>			

Mathematics HL is a two-year course covering many topics. During year one students will learn probability and statistics, algebra, functions, circle functions, trigonometry, and vectors. At the end of year one students will complete an internal assessment (math exploration of their choosing). Year two gives an in-depth look into calculus (equivalent to AP Calculus BC). Students will develop the attributes helpful to an internationally minded individual seeking to create a better and more peaceful world, with a focus on problem solving and mathematical inquiry. Students are expected to have a TI-84 graphing calculator at all times. The course will culminate with an external assessment consisting of three parts. **Prerequisite: At least an A- in Honors Algebra 2.**

	<b>IB Math: Analysis and Approaches SL Y1</b>	<b>Grades 11, 12</b>	<b>1 Credit per year</b>
	<b>IB Math: Analysis and Approaches SL Y2</b>		
<b>*[Graduation Requirement: Math Core, Math Elective; STEM Elective]</b>			

The IB DP Mathematics: Analysis and Approaches course is a two-year course and is intended for students who wish to pursue studies in mathematics at university of subjects that have a large mathematical content; it is for students who enjoy developing mathematical arguments, problem solving and exploring real and abstract applications, with and without technology. Topics include Algebra, Geometry, Trigonometry, Statistics, Probability, and Calculus. At the end of year one, students will start their internal assessment (math exploration of their choosing) which offers the students the opportunity to develop independence in their mathematical learning. Students are expected to have a TI-84 graphing calculator at all times. **Prerequisite: B- or better in Algebra 2.**

	<b>IB Math: Applications and Interpretations SL Y1</b>	<b>Grades 11, 12</b>	<b>1 Credit per year</b>
	<b>IB Math: Applications and Interpretations SL Y2</b>		
<b>*[Graduation Requirement: Math Core, Math Elective; STEM Elective]</b>			

Application and Interpretation SL is a two-year Mathematical sequence course that focuses on a vast array of mathematical concepts including algebra, function modeling using technology, probability and statistics, geometry, trigonometry, and calculus. Students will approach problems through application and using technology to advance understandings of each topic. Students will need to have

knowledge of basic mathematical concepts and be knowledgeable enough to apply mathematical concepts. Over the course of two-year students will be exposed to international mindedness, Theory of Knowledge (TOK – as it relates to mathematics), and be required to complete an Internal Assessment (math exploration of their choosing), and IB Math External Exams (Paper 1 and Paper 2 in May of Y2). All of this focuses on how well can students apply the knowledge they have acquired throughout the course. Aligning with the IB Syllabus, a TI-84 graphing calculator is an essential tool for this course. **Prerequisite: Algebra 2.**

<b>MA1140GAE</b>	<b>Statistics</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Credit, Math Related Course; STEM Related Course; fulfills STEM digital literacy]</b>			

Probability and Statistics is recommended for those who want a related credit that will be beneficial to many academic, medical, social, and business careers. Statistics topics studied include describing data with graphs, distributions, histograms, and other graphical techniques. Students will also use statistical measures of center and spread to analyze data and graphical displays. Probability topics include: probability rules, probability distributions-discrete, binomial, Poisson, and normal distributions. Other topics studied are sampling design, sampling distributions, hypothesis testing and confidence intervals for one mean and one proportion samples using z-tests and t-tests. **Prerequisite: It is recommended that students take Algebra 2 prior to taking Statistics.**

<b>MA1206GAC6</b>	<b>Creative Coding</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM Related Course and STEM digital literacy]</b>			

Probability and Statistics is recommended for those who want a related credit that will be beneficial to many academic, medical, social, and business careers. Statistics topics studied include describing data with graphs, distributions, histograms, and other graphical techniques. Students will also use statistical measures of center and spread to analyze data and graphical displays. Probability topics include: probability rules, probability distributions-discrete, binomial, Poisson, and normal distributions. Other topics studied are sampling design, sampling distributions, hypothesis testing and confidence intervals for one mean and one proportion samples using z-tests and t-tests. **Prerequisite: It is recommended that students take Algebra 2 prior to taking Statistics.**

<b>MA1208GAC6</b>	<b>Money Math</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM related course and STEM digital literacy]</b>			

This course integrates components of personal finance and digital literacy. Course will include topics such as planning for and budgeting for study tours, prom, and college, following international currency and exchange rates, use of credit cards and credit card debt, and cyber-security. While doing short-term financial planning, students will use spreadsheets and financial planning software and give presentations using PowerPoint, word, and websites. **Prerequisite: Algebra 1 or equivalent, or Integrated Math B**

<b>MA1211GAE6</b>	<b>History of Math Part 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM related course and STEM digital literacy]</b>			

The History of Mathematics (Part 1) is a semester survey of mathematics that developed from the dawn of civilization to the middle ages. It will include numbers systems of the ancient world. The works of Euclid, Hypatia and Fibonacci amongst others will be highlighted. **No Prerequisites**

<b>MA1212GAC6</b>	<b>History of Math Part 2</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM related course and STEM digital literacy]</b>			

The History of Mathematics (Part 2) is a semester's selection of mathematical topics that were pivotal in the creation of the modern era. The works of Gauss, Euler and Ramanujan, Leibniz and Reimann. The origins of calculus and its implications will be discussed. **Prerequisite: IB Analysis SL or HL.**

<b>MA1213GAE6</b>	<b>Phi: The Golden Ration</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM related course and STEM digital literacy]</b>			

This one semester class will discuss the origins of this ratio from Euclid to its relaxation to Fibonacci Sequences. Its influences on Science, Technology, Engineering, the Arts and Mathematics will also be examined. Topics of Study will include Pentagons, Fibonacci Sequences and Pascal's Triangle.

<b>MA1214GAC6</b>	<b>Pi</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: STEM related course and STEM digital literacy]</b>			

This one semester course is dedicated to the history of pi. It has been a constant companion to mankind since 2000 BCE. Topics of study will include the different methods used to prove that the famous irrational number is 3.14159...

<b>MA1164GAC</b>	<b>Computer Science</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Math Related course; STEM related course and digital literacy]</b>			

Topics covered will allow students to study programming methodology and design data structures and algorithms. Upon completion of this course, students will have an extensive introduction to the language of Java. **\*This course fulfills the digital literacy requirement. Prerequisite: Algebra 1. Recommendation: Algebra 2 or Math C**

<b>MA1168ACE7</b>	<b>Advanced Placement Computer Science Principles</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Related course; STEM related course and digital literacy]</b>			

This course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. It will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college-level courses that are offered in the high school setting. **\*[Graduation Requirement: Math Related Course; STEM Related course; Digital literacy]**

<b>MA1166AC</b>	<b>Advanced Placement Computer Science A</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Math Related course; STEM related course and digital literacy]</b>			

The College Entrance Examination Board syllabus will be followed. JAVA language will be used. Topics covered will be object-oriented programming (OOP), features the programming language, data types and classes, algorithms, application of computing, computer systems and social implications of computers, and a case study designated by the College Board. Students are expected to take the Advanced Placement exam. **Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. \*This course fulfills the digital literacy requirement.**

<b>MA1167GAC</b>	<b>Logic</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>BMHS ONLY</b>	<b>*[Graduation Requirement: Math Related course; STEM related course]</b>		

This course covers the fundamental principles of reasoning and argument in ordinary language. These include how to distinguish reasoning from other forms of persuasion, recognize the uses and abuses of language in the expression of ideas, extract arguments from texts, clarify the internal structure of arguments, evaluate the acceptability of premises, distinguish among forms of reasoning (statistical, casual, analogical, ethical, explanatory etc.), and identify common patterns of error in reasoning. Students will also be introduced to formal logic. By the end of the course students should have the greater ability to evaluate reasoning, to support their own positions, and to think their way through difficult issues. **Prerequisite: Algebra 2 or Math C. Students may take additional math classes through our partnership with BMHS.**

#### Fine Arts Courses

<b>AR8819GAC6</b>	<b>Global Art History</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is a field-research class. Students visit museums regularly and learn about different time periods in different global contexts and theories of art. As a final product, students elect to create art of their own or do a comparative analysis of two specific works of art.

<b>AR8805GAC</b>	<b>Drawing 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is designed for all students who would like the opportunity to increase their drawing skills in an intense half-year course. Students explore a wide variety of drawing techniques, materials, subjects and styles. Drawing will be based on observation and

imagination that will lead the student to self-discovery and awareness of his/her environment. A sketchbook/journal is required to plan and think through composition ideas. **Prerequisite: Middle School Art Teacher Recommendation**

<b>AR8805GAC</b>	<b>Drawing 2</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This course is designed for all students who would like the opportunity to increase their drawing skills in an intense half-year course. Students explore a wide variety of drawing techniques, materials, subjects and styles. Drawing will be based on observation and imagination that will lead the student to self-discovery and awareness of his/her environment. A sketchbook/journal is required to plan and think through composition ideas. Prerequisite: Middle School Art Teacher Recommendation

<b>AR8807GAC</b>	<b>Painting 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

For the student who loves to paint, this class is designed for the student who wishes to explore and improve in all forms of painting media, techniques, and subjects. Media to include: Watercolor, Gouache, and Acrylics. Art styles will be the focus as students learn the basics of color media. As with other classes, a sketchbook is required, as the student will be using it to render sketches for painting subjects. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation**

<b>AR8808GAC</b>	<b>Painting 2</b>	<b>Grades 10, 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

Students who would like to add to their portfolio will be challenged in this advanced painting course. They will be asked to create thematic, meaningful and current paintings; which will expose intent and mastery of media. Opportunities to work independently and to make personal choices for materials and techniques will be given throughout the semester. **Prerequisite: Painting 1**

<b>AR8821GAC6</b>	<b>Graphic Art and Design</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

**Prerequisite: Art 1, recommendation by middle school teacher, or permission of the instructor**

Semester-long course that focuses on photography, graphic art, and digital design techniques for each. Students learn the history of photography and graphic art, across time periods and cultures and create a small portfolio of their own work.

**Prerequisite: Art 1, recommendation by middle school teacher, or permission of the instructor**

<b>AR8822GAE6</b>	<b>Projects in Contemporary Art</b>	<b>Grades 10, 11, 12</b>	<b>1 credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

Students study contemporary art through the lens of art history, and then create contemporary art installations in and around their local communities. Students leave with a portfolio of work.

<b>AR8844HAE</b>	<b>Honors Portfolio</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Fine Arts]</b>			

This class is designed for Art Students who want to build a superior portfolio, a body of work, for higher educational review. Portfolio students can be preparing for AP Studio Art, taking AP concurrently, or have finished AP Studio Art class. Students are expected to be proficient in 2D Processes. Students create a substantial (20-24 pieces) portfolio of finished artwork. **Prerequisite: Two years of art classes.**

<b>BMHS ONLY</b>	<b>IB Group 6: The Arts.</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>AR8856ICEIB</b>	<b>IB Visual Art HL Y1</b>		
<b>AR8904ICEIB</b>	<b>IB Visual Art HL Y2</b>		
<b>AR8905ICEIB</b>	<b>IB Visual Art SL Y2</b>		
<b>*[Graduation Requirement: Fine Arts]</b>			

IB Art is a studio-based art course that highlights the creative process as a method for learning. Students develop 2D, 3D, or time-based art products as a result of skill development and artistic inquiry. Students focus on their own thinking and art making processes. Students document their learning in written and visual formats as evidence of in-depth research into chosen areas of interest.

Throughout the course emphasis is placed on all stages of the creative process: plan and practice; create; revise; present; reflect. Students are encouraged to be independently motivated, as they investigate the history and practice of a chosen art form. Students form a thesis across cultures, time periods, and disciplines to unite their work throughout the course. Students will learn how to connect research and art creation that expresses personal meaning within a cultural, historical and discipline-based context. In addition to learning how to appreciate and evaluate their own work and that of others, students will be encouraged to stretch and explore their own work and share it with an audience through critiques, exhibitions, and presentations.

**SL IB ART:** Over the course of the year, students experiment with various media, techniques, processes, and styles. Gradually, they are asked to identify themes in their own work and determine an area of focus. Through various teacher-driven assignments, students will gain practice in taking ideas and ways of knowing, from other disciplines, as inspiration for artistic expression.

**HL IB ART:** Students concentrate their work in one or two media and focus on developing a strong, cohesive portfolio of art that explores a central thesis that shows evidence of depth and breadth of research and investigation. Thematic series are strongly recommended and occur naturally in most cases.

The IB program recommends that the class be 60 percent art production and 40 percent related research (Option A). (Or as an alternative for students interested in Art History and Research, 60 percent research and 40 percent art production (Option B)). IB Art student's summative Art exam in Studio Work is an individual art show of 10 to 15 works. Students are expected to participate in all educational field experiences, and in gallery exhibitions, especially in their senior year.

<b>BMHS ONLY</b>	<b>IB Group 6: The Arts.</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>AR8913ICEIB</b>	<b>IB Film HLY1</b>		
<b>AR8915ICEIB</b>	<b>IB Film SLY1</b>		
<b>AR8914ICEIB</b>	<b>IB Film HLY2</b>		
<b>AR8916ICEIB</b>	<b>IB Film SLY2</b>		
<b>*[Graduation Requirement: Fine Arts]</b>			

The creation, presentation and study of film requires courage, passion and curiosity: courage to create individually and as part of a team, to explore ideas through action and harness the imagination, and to experiment; passion to communicate and to act communally, and to research and formulate ideas eloquently; curiosity about self and others and the world, about different traditions, techniques and knowledge, about the past and the future, and about the limitless possibilities of human expression through the art form.

At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement and imaginative synthesis that is achieved through practical engagement in the art and craft of film.

## Science Courses

CGS Science courses are globally-themed science classes offered through a partnership with BMHS.

<b>SC3445HAE6</b>	<b>Honors Cosmic Evolution</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Biology/Life Science (Lab)]</b>			

How did we get here? Where did the universe come from? How is it that we are just a blip on the 14 billion year history of existence? Honors Cosmic Evolution is an integrated science course about the story of the formation of the universe and the Earth, with a focus on the study of how systems develop and change in the assembly and composition of radiation, matter, and life throughout the history of the Universe. There are interdisciplinary intersections with Honors Survey of World History.

<b>SC3447GAE6</b>	<b>Science of Sustainability</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Biology/Life Science (Lab)]</b>			

This environmental science course offers the opportunity to learn about the scientific underpinnings of sustainability and about sustainability practices around the world. In addition to studying and researching sustainability, students will also practice sustainability through lab experiences in our garden, kitchen, and local and global communities. Some years, this course will run in conjunction with Eco-Study Tours to various countries.

<b>SC3329HAE</b>	<b>Honors Biology (Lab Science)</b>	<b>Grades 9*, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Biology/Life Science (Lab)]</b>			

Honors Biology will cover topics similar to those covered in the college prep biology class: the principles and inter-relationships of living forms with reference to the balance of nature and a realistic concern for the environment. These topics will be covered in

greater depth, placing more emphasis on the self-reliance of the student. Biochemistry will be emphasized, and students will be expected to write science papers and work on science projects. **Strongly Recommended: grades of “A” 7<sup>th</sup> and 8<sup>th</sup> grade science and 8<sup>th</sup> Grade science teacher recommendation (based on student’s interest and motivation); students taking and obtaining a grade of “B” or better in Algebra in 8<sup>th</sup> grade.**

<b>SC3348GAE</b>	<b>Chemistry (Lab Science) Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Chemistry/Physical Science (Lab)]</b>		

This course covers the following topics: properties of materials, the transformations which matter undergoes, the conditions affecting those transformations and the nature and amount of energy released or absorbed in these changes, the uses of materials and creation of new substances. Emphasis is placed upon mathematical application to chemistry and an extensive degree of laboratory work. Recommended C or better in the prerequisite courses. **Prerequisite: Intensive Algebra 1 or Algebra 1 and Biology**

<b>SC3331HAE</b>	<b>Honors Chemistry (Lab Science) Grades 10, 11</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Chemistry/Physical Science (Lab)]</b>		

This course is for students in the accelerated science sequence and provides an in-depth concentrated study of topics studied in high school chemistry. The work is rigorous and challenging and laboratory activities constitute a major part of this course’s curriculum. Students are expected to work at a higher level and complete a project. **Prerequisite: Biology; Co-requisite: Algebra 2**

<b>SC3446HAE6</b>	<b>Honors Applied Physics Laboratory (APL) Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Chemistry/Physical Science (Lab)]</b>		

Real-world applications of Physics and Engineering are inseparable. However, typical high school physics classes hardly ever take full advantage of the linkages in between. Applied Physics Laboratory (APL) is built on the foundation of basic physical theory. The theoretical curriculum is streamlined to allow ample class time for hands-on, applied projects emulating engineering industry standards. The fundamental goal of this course is to convey “textbook” knowledge through applied examples by creating an internship-like environment in the classroom. APL will meet all NGSS Physics DCIs and crossflow into engineering DCIs, while pulling in the SEPs and CCs. An unparalleled alternative to standard high school Physics designed directly by Fortune 500 engineers in the spirit of MIT’s Conceive-Design-Implement-Operate (CDIO) initiative. **Prerequisite: Algebra or Math B**

<b>SC3361GAE</b>	<b>Physics (Lab Science) Grades 10, 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>		

Physics is the study of matter and energy including an introduction to the mechanics of solids, liquids and gases, wave motion, sound, heat, magnetism, electricity, light and other concepts in modern physics. The fundamental principles and concepts of each topic are studied and applied through problem-solving and laboratory experimentation. Emphasis is placed on experience integrating physics and mathematics. **Prerequisites: Biology and Algebra 2 or Geometry**

<b>SC3369HAE</b>	<b>Honors Physics (Lab Science) Grades 11, 12</b>	<b>1 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>		

Honors Physics is an in-depth study of physics. Demands will be placed on the student to work independently in the classroom as well as the laboratory. The student will be expected to complete both long and short term outside projects and research as well as to master the use of sophisticated equipment including computers. The honors course will emphasize quantitative physics. Students will be expected to handle linear and quadratic equations and geometry with ease and trigonometry when needed. Problems involving several physical relationships will be stressed as well as derivation of physical relationships. **Prerequisites: Biology and Algebra 2 or Geometry; Co-requisite: Precalculus or Trigonometry**

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
<b>SC3430ICE</b>	<b>IB Physics HL Y1</b>	<b>Grades 11, 12</b>	<b>1 credit per year</b>
<b>SC3432ICE</b>	<b>IB Physics HL Y2</b>		
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

IB Physics HL is an in-depth and rigorous Physics course in which students will learn concepts and methods of physics and develop analytical and experimental skills. Topics of study include mechanics, oscillations and waves, optics, heat and thermodynamics, fluid physics, electricity and magnetism, atomic and nuclear physics, relativity, etc. This course will be Algebra and Trigonometry based. Lessons will consist of lecture, group work, problem solving and experimentation, enabling students to develop their thinking, reflection, inquiry and communication skills while developing their knowledge of physics as well as their knowledge of the world through physics.

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
SC3431ICE	IB Environmental Systems and Societies SL Y1	Grades 11, 12	1 credit per year
SC3433ICE	IB Environmental Systems and Societies SL Y2		
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

IB Environmental Science is an extensive two-year study of human interactions with planet earth, through a global and multicultural lens. This course will maintain the rigor and expectations of an introductory environmental science course at any higher learning institution. In addition to traditional instruction and labs, students will be challenged to become self-guided learners, developing their own projects and research activities throughout the course. The goal of this course is to (1) provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, and (2) to require students to think critically about information and issues, and to problem solve, with the foresight to weigh the risks, rewards, and ethics of any solution. Core topics will include earth systems and resources, ecosystem structures, diversity, and resiliency, population dynamics, sustainability of modern land and water use, energy resources and consumption, pollution, global climate change, and international environmental law. Finally, this course will get students outside of the classroom and into the natural world, visiting locations, interacting with the environment, and addressing contemporary issues in the proper setting.

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
	IB Biology SL Y1	Grades 11, 12	1 credit per year
	IB Biology SL Y2		
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

IB Biology is a Standard Level course that fulfills the science requirement for the International Baccalaureate Diploma Programme (DP). The Biology SL course will provide students with higher-order investigative experiences and activities to promote a deeper understanding of critical concepts in Biology. Such concepts will include basic biochemistry, cell structure and function, genetic patterns of inheritance, plant form and function, evolution, ecology, animal physiology and the international nature of science. It will emphasize the development of inquiry skills and higher order thinking via experiential learning in both a classroom and laboratory settings. Students will be required to demonstrate knowledge in experimental methodology, data collection, and the interpretation of experimental data. The classroom environment will stimulate student open-mindedness by providing authentic application to the biology content, thus enabling students to make the broad connections to how these biological concepts are applicable to the global community. Theory of Knowledge concepts and global connections will be discussed and integrated throughout the course.

<b>BMHS ONLY</b>	<b>IB GROUP 4: SCIENCE</b>		
	IB Sports, exercise and health science SL Y1	Grades 11, 12	1 credit per year
	IB Sports, exercise and health science SL Y2		
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Sports, exercise and health science (SEHS) is an experimental science that combines academic study with the acquisition of practical and investigative skills. It is an applied science course with aspects of biological and physical science being studied in the specific context of sports, exercise and health. Moreover, the subject matter goes beyond the traditional science subjects to offer a deeper understanding of the issues related to sports, exercise and health in the 21st century. Apart from being worthy of study in its own right, SEHS is a good preparation for courses in higher or further education related to sports fitness and health and serves as useful preparation for employment in sports and leisure industries.

<b>SC3385GAC</b>	<b>Forensics</b>	<b>Grades 11, 12</b>	<b>0.5 Credit</b>
<b>*[Graduation Requirement: Science Related Course; STEM Related Course]</b>			

Forensics is the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system. Discussion in this course will be limited to only those areas of chemistry, biology, physics, and geology that are useful for determining the value of crime scene and related evidence. Work in this course will center around the science and technology of evidence collection. This course will be a comprehensive review of biology, chemistry, physics and other science topics. Topics covered will include fingerprinting, body fluids, DNA typing, fire tread analysis, hair and fiber analysis, metallurgy, polygraph testing, ethics, and legal issues. **Prerequisite: Biology and Chemistry**



### Physical Education and Wellness/ Health Education and Safety

PE9001GAC	Physical Education	Grades 9, 10, 11, 12	0.5 Credit
PE9002GAC	Physical Education	Grades 9, 10, 11, 12	0.5 Credit

**\*[Graduation Requirement: Physical Education and Wellness]**

Physical Education is a comprehensive program that teaches students the skills and concepts necessary to lead a healthy lifestyle.

PE9105GAC	Health Education 1	Grades 9, 10	0.5 Credit
PE9106GAC	Health Education 2	Grades 11, 12	0.5 Credit

**\*[Graduation Requirement: Health and Safety]**

The health courses develop the concept that a person's health is greatly influenced by the kind of information that a person has and the way this information is used in making decisions about the individual's life. Life skills integrated throughout coursework are: accessing reliable information, advocacy, analyzing influences, decision making, goal setting, and not limited to student self-management. The Health Curricula focus on Four State standards: Healthy and Active Life, Injury and Disease Prevention, Human Growth and Development, Substance Abuse Prevention.

<b>BMHS ONLY</b>	Peer Assisted PE	Grades 9, 10, 11, 12	.5 Credit
<b>BMHS ONLY</b>	Peer Assisted Art	Grades 9, 10, 11, 12	1 Credit
<b>BMHS ONLY</b>	Peer Assisted Health II	Grades 11, 12	.5 Credit
AR8815GRE	Integrated Culinary Arts (BMHS)	Grades 9, 10, 11, 12	1 Credit

**\*[Graduation Requirement: Fine Arts]**

Student with disabilities are integrated into Physical Education, Health, Art, and Garden to Table therefore providing access to adapted coursework supported by the teaching team and peer mentors in consultation with special educators. In addition, peer mentors receive valuable experience in career exploration for those students interested in pursuing a career in general or special education, physical/occupational therapy, and other health related fields. Prerequisite for peer mentors: previous art course or PE/Health Course or previous culinary arts course.

NK9408GRE	Academic Assistance	Grades 9, 10, 11, 12	1 Credit
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**\*[Graduation Requirement per PPT]**

Students will receive small group supplementary instruction focusing on the IEP goals in the areas of executive functioning skills, academic self-management skills, self-advocacy, notetaking, research and written, oral or visual presentation skills. Time management skills are addressed to support independent completion of coursework, projects and homework assignments as applied across general education curriculum areas. Placement in this course is based on the recommendation of The Planning and Placement Team as designated in the students' Individual Educational Plan consistent with goals and objectives.

### Additional Course Offerings

CGS students are eligible to take all IB classes through BMHS. In addition to music classes, JROTC classes, and additional world language classes, additional courses may be offered in cooperation with BMHS, if enough CGS students are interested in a particular course.

**P-TECH Norwalk  
Pathways in Technology Early College**

# P-TECH NORWALK

**P-TECH Norwalk's mission:** Through a transformative educational program, P-TECH students are equipped with the essential skills, mindsets, and workplace experiences to excel in their academic, personal, and professional endeavors.

P-TECH Norwalk is Connecticut's first 9 – 14 high school. Students can earn a high school diploma and no-cost, applied associate degree from Norwalk Community College. Through participation in the college program and workplace experiences, students develop the academic and professional skills required for continued study or entry-level careers in computer science and information technology.

Upon completion of grade 9, eligible students may begin the summer college program and can earn a maximum of eight college credits. Through dual enrollment, college courses may satisfy both high school and college requirements. Beginning in grade 10, the schedule may include both high school and college courses. It also provides the pathway for all students to move through the same sequence of courses, but depending on their strengths and needs, at different rates. Some students may accelerate through the requirements in fewer than six years, while others may take the entire six years to complete their associate degree. In each case, the scope and sequence of courses provides the seamless integration of high school and college requirements. P-TECH provides sufficient structure and support for any student to complete a degree in six years.

All students graduate high school in four years and are required to complete a minimum of 26 credits. To graduate with the AAS degree from NCC, students are required to complete a minimum of 64 college credits. P-TECH offers applied associate degrees in three areas: Mobile Programming, Software Engineering and Web Development. Each degree includes core requirements in English, math, social science, humanities, and science, as well as major related courses.

In addition to our degree pathways, P-TECH offers pathways in STEAM, Justice and Global Citizenship, and Entrepreneurship that lead to college, and state and high school endorsed certificates. A pathway is an exploratory program consisting of three or more credits in a sequence that falls under a specific career cluster, subject area, or field of study.

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Mentoring  
Workplace Learning  
Internships  
Employment Opportunities



Comprehensive High School  
Award Winning Programs  
Extracurricular Activities  
Sports and More



Nationally Accredited  
Transferable Credits  
Associate Degrees  
State of the Art Facilities



**AAS Degree Pathways****Mobile Programming**

The Mobile Programming degree teaches students fundamental concepts as well as fosters preparation for tomorrow's programming needs. Course work is focused on programming in heterogeneous platform environments through multiple programming languages, and development of both written and verbal communication skills needed in all areas of the business community.

**Software Engineering**

The Software Engineering degree emphasizes the complete lifecycle of the software development process. Students learn how to design, develop, test, deploy, and maintain software using rigorous software engineering practices. Students are taught how to leverage technology to create flexible and scalable applications and to address the challenges that arise during the development process.

**Web Development**

The Web Development degree focuses on coding and design aspects of web development. Students gain the skills to implement all facets of web development from design through implementation and are prepared for technical positions within the Computer Science field. Course work is focused on creating web sites and programs that use an integrated development environment (IDE) to create web sites and other programs.

**NCC Certificate Pathways****Computer-Aided Design (CAD)**

The CAD certificate prepares students for the career options in industry that requires CAD skills. Students will learn to prepare 2D drawings and create 3D solid models using computer applications widely used by the industry. Students will be able to interpret and read engineering drawings, demonstrate an understanding of orthographic projection and create 2D drawings for solid objects, and create 3D models and assemblies and convert 2D drawings to a 3D model. **(6 College Credits)**

**Smartphone App Development**

This Smartphone App Development certificate prepares students to plan, design, code, test, and debug solutions to programming problems using a variety of programming languages. Students completing the program will be able to create simple applications on a variety of devices and specialized programs on the device of their choice on platforms that include Apple iPhone and Google Android OS. **(14 College Credits)**

**Web Developer**

The Web Developer certificate provides students with training in the emerging technologies of the Internet. Upon successful completion of all program requirements, students will possess the ability to build a commercial or generic web site, develop web pages using low level code and development software packages, and support web pages with server-side java programming and other products. **(16 College Credits)**

**High School Pathways****Computer Science and Engineering Pathway**

This pathway takes an interdisciplinary look into preparing students for careers in computer science. The courses are designed to engage students from a real-world problem-based approach. Students in this pathway will become critical thinkers, problem solvers, effective collaborators and communicators as they take an innovative look into creating apps, games, designing robotics, automated systems, and utilizing and operating drone technology.

**Graphic Design Pathway**

In the Graphic Design pathway students develop a broad understanding of graphic design skills, sensibilities, and techniques using graphic design elements, principles, and procedures to create appropriate visual communication. Students will be able to understand the historical foundations of visual communications and recognize contemporary design concepts and trends. Students in this pathway should be able to demonstrate proficiency with industry standard manual and digital tools. **(16 College Credits)**

### **Project Lead the Way (PLTW) Biomedical Science/Biomedical Technology Pathway**

PLTW Biomedical Science students take on the same real-world challenges as medical professionals – before they graduate from high school. Working with the same equipment used by professionals in hospitals and labs, students engage in compelling, hands-on activities and work together to find innovative solutions to relevant problems. Students take from the courses in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they take. Whether designing the next generation of medical innovations or teaching healthy lifestyle choices to their communities, today’s biomedical science professionals are tackling big challenges to make the world a better place.

## **JUSTICE AND GLOBAL CITIZENSHIP**

### **Social Justice Pathway**

The Social Justice pathway prepares students to be strong leaders and advocates of ethical standards that benefit humanity and our environment through the use of technology. This pathway explores the evolving relationship humans have with each other and with nature. Using technology as a tool to focus on justice and ethics in the 21st century, students are challenged to create solutions to ethical issues while building teamwork and communication skills.

### **Connecticut Certificate of Global Engagement Pathway**

The Connecticut Certificate of Global Engagement pathway guides students through courses with global content across disciplines. It prepares them to be globally competent and college and career ready by engaging in academic, co-curricular activities and experiences that foster the development of global competencies that foster global citizenship. The certificate supports student literacy and provides a pathway for 21<sup>st</sup> century skills.

## **Entrepreneurship**

### **Entrepreneurship Pathway**

This pathway focuses on the business planning process and methods for developing a new venture, including processes of ideation and innovation, business model validation, fundamentals of new venture funding, and principles of small business operation. Students will explore identifying and evaluating business opportunities, learn about risks faced by entrepreneurs, market assessment, capital requirements, legal structures, and tax implications, with a focus on technology-based businesses.

## **GENERAL STUDIES**

### **General Studies Pathway**

Designed for students who wish to customize their learning experience, the General Studies Pathway offers each student the opportunity to explore many interests while pursuing a high school diploma.

**BUSINESS****Workplace Learning 1****Grade 9****.5 Credit**

Workplace Learning 1 (WPL 1) supports students in college and career-readiness. In this course, students develop essential critical thinking, problem-solving, communication and leadership skills that are necessary for success in both their college and career paths. Workplace Learning also develops students' social-emotional skills, such as: self-confidence, grit, persistence, optimism, self-motivation, initiative and resilience. Through WPL, students have the opportunity to communicate with IBM Mentors via an on-line forum, attend guest lectures and visit IBM sites. The essential skills developed in Workplace Learning 1 include: Communication (interpersonal, presentation, interpretative, verbal), Collaboration (demonstrate active listening, ask questions, share resources, stay on task), Analytical Thinking (research, interpret data, solicit expert advice, input and opinions, brainstorm), Self-Management (demonstrate empathy, practice time management, mindfulness and self-care, demonstrate accountability for commitments and actions, demonstrate self-regulation), Entrepreneurship (ask questions), Responsible Leadership (show empathy, exhibit integrity), and Agility and Cognitive Flexibility (exhibit a growth mindset). **[Graduation Requirement: Related Course]**

**Workplace Learning 2****Grade 10****.5 Credit**

Workplace Learning 2 (WPL 2) builds on the topics and skills covered in WPL 1. In this course, students continue to develop essential critical thinking, problem-solving, communication and leadership skills that are necessary for success in both their college and career paths. Workplace Learning also develops students' social-emotional skills, such as: self-confidence, grit, persistence, optimism, self-motivation, initiative and resilience. Through WPL, students have the opportunity to communicate with IBM Mentors via an on-line forum, attend guest lectures and visit IBM sites. The essential skills developed in Workplace Learning 1 include: Communication (non-verbal), Collaboration (critique constructively, delegate, manage meetings, stay on task), Analytical Thinking (organize and integrate information, make decisions based on evidence including research, data and expert input, set and test theories, problem solve), Self-Management (demonstrate cultural awareness and intelligence, mindfulness and self-care), Entrepreneurship (exhibit curiosity (ask questions and probe deeper), demonstrate a willingness to learn, show enthusiasm), Responsible Leadership (demonstrate accountability to self and others, foster collaboration), and Agility and Cognitive Flexibility (react proactively to change). **Prerequisite: Workplace Learning 1 [Graduation Requirement: Related Course]**

**Workplace Learning 3****Grade 11****.5 Credit**

Workplace Learning 3 (WPL 3) builds on the topics and skills covered in WPL 1 and WPL 2. Students continue to develop and practice critical thinking, problem-solving, communication and leadership skills. Key areas of focus in WPL 3 are the practical application of employment related skills and an understanding of the real-world work environment, as well as career options and pathways. Students enrolled in WPL 3 gain first-hand knowledge of the nature of the work force with their experiences integrated into the curriculum. This final course in the WPL series, prepares students for a paid, skills-based internship with IBM or other industry partner. Students are eligible for internship based on several factors, including but not limited to, successful completion of the WPL course sequence and enrollment in college courses. The essential skills developed in Workplace Learning 3 include: Collaboration (delegate, manage meetings, build consensus/negotiate), Analytical Thinking (set and test theories, problem solve), Self-Management (practice prioritization or professional and personal commitments, mindfulness and self-care), Entrepreneurship (take initiative to research (act) independently, test new ideas, demonstrate perseverance, innovate and create), Responsible Leadership (demonstrate a service-mindset, led by example (attitudes, behaviors, follow-through), imitative action for self and/or teams, inspire), and Agility and Cognitive Flexibility (seek out new learning, adapt, iterate on deliverables and solutions). **Prerequisite: Workplace Learning 2 [Graduation Requirement: Related Course]**

**Cooperative Work Experience (CWE)****Grade 11, 12****1.5 Credit**

This course allows students an opportunity to assess and identify career interests, aptitudes, and options in developing a career plan. They will identify skills, aptitudes, and ethics required for employment acquisition in a competitive marketplace. Students will demonstrate mastery of the entry-level employment skills, competencies, and character of education essential for success in the workplace, including issues of diversity, expectations, trends, and labor regulations, as well as demonstrate how academic knowledge and skills are applied to the workplace, personal life, and life-long learning, while gaining an understanding of economic concepts that influence personal, business, and government decisions. **[Graduation Requirement: Related Course]**

<b>Honors Entrepreneurship (Starting a Business)</b>	<b>Grade 10, 11, 12</b>	<b>1 Credit</b>
<p>This course covers the development process of a new venture. It begins on a conceptual level, then addresses the fundamentals such as financing the new venture, competitive positioning, branding and imaging, insurance and regulatory requirements, marketing, protecting intellectual property, the legal entity structure, the website development components and cost, product sourcing, etc. The class will teach how to pitch the new venture for competitions or to capital providers. <b>[Graduation Requirement: Related Course]</b></p>		
<b>Honors Accounting 1</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
<p>Accounting is an introduction to the basic principles of Accounting, and how to account for business transactions. Emphasis is placed on the understanding of how financial statements are prepared, and how they are used as a basis for decision making by business owners, investors, creditors, government and others interested in the financial condition of an economic entity and the result of its operations. This class is highly recommended for students planning a degree in any area of business. <b>[Graduation Requirement: Related Course]</b></p>		
<b>Honors Accounting 2</b>	<b>Grade 11, 12</b>	<b>.5 Credit</b>
<p>This course expands on topics introduced in the first-year course while adding new topics about money, managerial accounting, cost accounting, corporate accounting, and financial analysis. Students will complete assignments utilizing the computer and various accounting software. Accounting 2 gives a strong foundation for post-secondary studies in business. <b>Prerequisite: Honors Accounting 1. [Graduation Requirement: Related Course; Digital Literacy]</b></p>		
<b>International Business</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
<p>Students will explore, analyze, and present causes of growth and productivity in certain nations and economies. Students will learn about the costs and benefits of free trade and globalization. Students will understand critical world trading relationships, partners and agreements. Students will research and present powerful multinational corporations for evidence of ethics, career, and investment opportunities. <b>[Graduation Requirement: Related Course]</b></p>		
<b>Business Law</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
<p>This course involves the principles of business law. Facets of law covered include Constitutional Statutes, Common Law, Law of Contracts, Law of Sales, Criminal Law, Cyber Law, and Tort Law. This course will help students understand principles of law that affect their business life. <b>[Graduation Requirement: Related Course]</b></p>		
<b>Business in the Global Economy</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
<p>This course will give the students a greater understanding of economics ranging from the viewpoint of the individual consumer to the global economy. The course will study the law of supply and demand, and their influence in determining equilibrium for consumer prices. The course will also cover global economic patterns as they respond to government, financial, and legal decisions and compare and contrast the American Free Enterprise System vs. other global economic systems. <b>[Graduation Requirement: Pathway Related Course]</b></p>		
<b>Principles of Investing</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
<p>This introductory course will help students develop a thorough understanding of the concepts and theories that apply to stock market trading of stocks, bonds and mutual funds. Through an on-line investment simulation, students will learn how to research financial information about corporations, develop and manage an investment portfolio, buy and sell stocks on an exchange, and to evaluate market performance with market indexes. <b>[Graduation Requirement: Related Course]</b></p>		
<b>Principles of Financial Literacy</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
<p>This course prepares students to plan for financial success with a focus on budgeting and banking: taxes, saving/investing, checking accounts and budgeting. Students will develop decision-making and goal setting skills, understanding the relationship between career choices and income, creating budgets, analyzing paychecks. Students will also learn the most effective way to make their money grow with the help of compound interest and intelligent investing. <b>[Graduation Requirement: Related Course]</b></p>		

<b>Financial Literacy</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This course prepares students to plan for financial success with a focus on credit and insurance: types of credit, managing credit, paying for college, insurance, and behavioral finance/financial pitfalls. Students will develop decision-making and goal setting skills, understanding the relationship between career choices and income, and utilizing credit wisely. Students will also learn the most effective way to make their money grow with the help of compound interest and intelligent investing. **[Graduation Requirement: Related Course]**

<b>Marketing</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
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This course consists of the fundamental skills of marketing including: planning and developing products, pricing, placement, and promotion with a focus on the customers' needs and wants. Students will analyze different target markets and strategies to effectively reach them. Major companies will be included in case studies and profiled for modern marketing techniques.

This project-based course allows students to develop and demonstrate management level marketing skill. Students will learn advanced marketing principles that demonstrate proficiency by completing a marketing project or internship. An example of a marketing project/internship might include developing and running a school enterprise, conducting market research for a business; develop an advertising campaign or interdisciplinary work with other business classes. **[Graduation Requirement: Related Course]**

<b>Sports and Entertainment Marketing</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
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Students will be introduced to marketing concepts as they relate to the ever-changing sports and entertainment industries. This course examines the business of sports in the professional, college, and amateur fields, as well as the vast field of entertainment, focusing on their impact on companies, players, and consumers. Topics will include all 7 Marketing functions and focus on the Marketing 4 P's; Price, Product, Promotion and Place. Students will also discuss other related topics such as imaging, licensing, branding and market research. The course will offer field trips, guest speakers and self-directed projects which allow students to apply creativity in creating marketing campaigns to help a business succeed. **[Graduation Requirement: Related Course]**

## COMPUTER SCIENCE AND TECHNOLOGY

<b>Video Game Design</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This course will introduce students to the world of video game design and development, learning all aspects of the creative, business, and technological components. Students will examine history, structure, and strategy of game development. Overall creation of the computerized video game will include storytelling, characters, game play, levels, and audio content. Participants will learn key programming constructs using Game Maker software. By the end of the course, students will have created a computerized video game. This course is an introductory-level course that does not require a background in computer programming. **[Graduation Requirement: STEM Related Course; Digital Literacy]**

<b>Exploring Computer Science</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
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Exploring Computer Science prepares students for learning a programming language. The course will develop students ability to problem solve through programming. Topics covered will include an overview of computer architecture, computer hardware, different types of software, flowcharts, pseudocode, and algorithms. In addition, students will learn how to solve very basic problems using JAVA. **[Graduation Requirement: STEM Related Course; Digital Literacy]**

<b>Computer Construction and Repair</b>	<b>Grade 10, 11, 12</b>	<b>1 Credit</b>
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This course is interactive and provides students with the opportunity to assemble a multimedia computer. An overview of available career and certification options will be provided through a heavy emphasis on technical readings and practice exams. topics covered will include the different types of operating systems, motherboards, CPUs, power supplies, expansion cards, and memory. Students will also research current industry standards for computer construction as older components are updated or become obsolete. **[Graduation Requirement: STEM Related Course; Digital Literacy]**

<b>Cisco Networking 1</b>	<b>Grade 11, 12</b>	<b>1 Credit</b>
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This course provides an on-line curriculum that is provided by CISCO Systems and is taught by a certified CISCO Systems Academy instructor. The course covers all the networking theory necessary to develop and understand the basic network technologies. **Recommended: Computer Construction/Repair. Students may take CISCO Networking 1 concurrently with Computer Construction/Repair [Graduation Requirement: STEM Related Course; Digital Literacy]**



<b>Honors Cisco Networking 2</b>	<b>Grade 12</b>	<b>1 Credit</b>
This course includes more in-depth, hands-on router experience. <b>Prerequisite: Cisco Networking 1 [Graduation Requirement: STEM Related Course; Digital Literacy]</b>		
<b>Introduction to Java</b>	<b>Grade 9, 10, 11, 12</b>	<b>1 Credit</b>
This introduction to the programming language JAVA covers the basics along with programming logic. A history of the development of programming languages and the Java language will be covered. <b>[Graduation Requirement: STEM Related Course; Digital Literacy]</b>		
<b>Advanced Placement Computer Science Principles</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
This course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. It will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Students are expected to take the Advanced Placement exam. <b>[Graduation Requirement: Math; STEM Related Course; Digital Literacy]</b>		
<b>Honors Introduction to Engineering Design (PLTW)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
This course introduces students to the basics of sketching. Lettering, orthographic projection, and 3D Modeling. Students will practice these skills on the drafting board and be introduced to Computer Aided Drafting (C.A.D.). The knowledge and skills developed can be applied to any of the fields of engineering including civil, electrical and mechanical. Topics include the design process, research and analysis, teamwork, communication methods and engineering standards and technical documentation. This course follows the Project Lead the Way curriculum which will allow students who meet the requirements to receive college credit. <b>[Graduation Requirement: STEM Related Course; Digital Literacy]</b>		
<b>Software Design and Integration 1</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
Software Design and Integration will introduce students to how corporate software projects are developed, managed, integrated and fielded. An interface-oriented approach to software development eliminates the need for any prior coding experience. Students will navigate this multifaceted world following a project-based road map and, acquire key professional skills after creating apps, games, and control algorithms. Software Design & Integration students will establish a solid foundation in software development and more importantly, will gain big-picture understanding of interface management and the engineering process at large. <b>[Graduation Requirement: STEM Related Course; Digital Literacy]</b>		
<b>Conceptual Engineering Milestones</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
Conceptual Engineering Milestones (CEM) is a project-based laboratory to practice key 21 <sup>st</sup> century skills: critical thinking, problem solving, public speaking, task management, teamwork, and effective communication. Through a series of conceptual small-team projects culminating in a hands-on final project, students will engage in a wide variety of career opportunities available in engineering; how to pursue them and what day-to-day life as a corporate engineer entails. <b>Prerequisite: Algebra I [Graduation Requirement: STEM Related Course; Digital Literacy]</b>		
<b>Engineering Design Project</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
The Engineering Design Project's (EDP) project and problem-based curriculum has been carefully crafted to groom future design engineers. Students will work in collaborative teams to embark on an extended design project emulating a real-world engineering program complete with requirements analysis, milestone reviews, schedule and budget management, and a detailed test program prior to fielding and operational product. <b>Prerequisite: Conceptual Engineering Milestones (CEM) [Graduation Requirement: STEM Related Course; Digital Literacy]</b>		
<b>Introduction to Robotics</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
Robotics is a lab-based course that uses a hands-on approach to introduce the basic concepts of robotics, focusing on the construction and programming of autonomous mobile robots in addition to learning the fundamentals of open loop systems using analog and digital sensors. Course information will be tied to lab experiments; students will work in groups to build and test increasingly more complex mobile robots, culminating in an end-of-semester robot contest. We will be using VEX Robotic Design System as our platform. Students will complete a variety of robot construction and programming activities. <b>[Graduation Requirement: STEM Related Course]</b>		

<b>Drone Engineering and Operation</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
<p>The Milestone C team of aerospace professionals employ cutting-edge technologies and techniques to equip students with key professional skills pertinent to the drone industry and the engineering field at large. During this course students will learn about basic aerodynamics, unmanned aircraft architecture, and drone flight dynamics before applying the engineering process to design, build, and test fly their own drones in small teams, emulating a real-world aerospace engineering program from beginning to end. Following requirements analysis, design, and manufacturing students will perform flight test using their First-Person View (FPV) piloting systems on their drones. This one-of-a-kind aerospace experience culminates in a drone challenge, allowing student teams to compete against each other by applying the knowledge, skills, and experience gained during the course. <b>[Graduation Requirement: STEM Related Course]</b></p>		
<b>Introduction to Programming – NCC CSC 108</b>		<b>1 Credit</b>
<p>This course covers Fundamentals of programming and program development techniques. Topics include data types, functions, storage class, selection, repetition, pointers, arrays, and file processing. Programming laboratory projects in a closed laboratory environment are supervised by the instructor. <b>Prerequisite: Placement in MAT 172 [Graduation Requirement: Math; STEM Related Course; Digital Literacy]</b></p>		
<b>Introduction to Bioinformatics - NCC CSC 111</b>		<b>1 Credit</b>
<p>Introduction to Bioinformatics is a one-semester course focusing on the pre-existing in silico tools to analyze biological data. This application-based course will introduce how specific types of computational tools can elucidate the identification and function of genetic and protein information. This class is not a programming course per se and does not require formal programming skills. It is designed for the computer science student to learn how programming is used to elucidate the function of biological macromolecules in relevant, current research questions. The requisite biology will be introduced in this course. Similarly, this course is designed for the liberal arts and science student who would like to learn how computer science tools are used to interpret biological data. <b>Prerequisites: CSC 108, MAT 172 OR MAT 201, or permission of the instructor. [Graduation Requirement: STEM Related Course; Digital Literacy]</b></p>		
<b>Object Oriented Programming Using Java - NCC CSC 226</b>		<b>1 Credit</b>
<p>The features and tools of the Java programming language are covered in detail. The Object-Oriented model is used in developing object-based and object-oriented programs. The Java Virtual Machine and environment, classes, arrays, strings, inheritance, graphics, exceptions, I/O streams, and the Java API are discussed. Programming laboratory projects in closed laboratory environment, supervised by the instructor, are assigned. <b>Prerequisites: CSC 108 or CSC 207 or CSC 234 or CST 252 or permission of instructor. [Graduation Requirement: STEM Related Course; Digital Literacy]</b></p>		
<b>Database Development I – NCC CSC 233</b>		<b>1 Credit</b>
<p>Relational database development including data modeling, database design and database implementation. The student learns to create and alter tables, retrieve, insert, update, and delete data using a fourth-generation language (ORACLE) in a supervised laboratory setting. Uses of database technology, understanding DBMS and RDBMS concepts, normalizing designs, transforming of logical design into physical databases, embedded SQL, and the role of the DBA are also covered. <b>Prerequisite: Eligibility for ENG 101; CSC 103 or equivalent recommended [Graduation Requirement: STEM Related Course; Digital Literacy]</b></p>		
<b>Database Development II – NCC CSC 234</b>		<b>1 Credit</b>
<p>Reinforcement of topics covered in CSC 233 as well as introduction of new topics including PL/SQL; creation of custom forms; functions; reports; additional ORACLE features; advanced calculations and multi-valued dependencies; and some current trends. A case study approach is used to apply concepts, methodologies and the ORACLE tools covered. <b>Prerequisite: CSC 233 [Graduation Requirement: STEM Related Course; Digital Literacy]</b></p>		
<b>Programming Mobile Devices I – NCC CSC 262</b>		<b>1 Credit</b>
<p>The course introduces students to the various platforms in use on small and mobile devices. Platforms include Apple iPhone, Google Android OS and others. Students will create applications for each platform using specialized development environments. <b>Prerequisite: CSC 108 or CSC 207 [Graduation Requirement: STEM Related Course; Digital Literacy]</b></p>		

<b>Programming Mobile Devices II – NCC CSC 263</b>	<b>1 Credit</b>
This course enables the student to specialize in development on a single device. The device is chosen prior to offering the class. All aspects of the development are covered in the context of the device. <b>[Graduation Requirement: STEM Related Course; Digital Literacy] Prerequisite: CSC 108</b>	
<b>Operating Systems – NCC CST 121</b>	<b>1 Credit</b>
Operating Systems provides an introduction to Unix based operating systems. The course focuses on basic skills in using a command line operating system. Students learn the characteristics of the common Unix shells, the Unix based file and directory system, file management, permissions, the vi editor, and basic computer networking concepts and commands. Graphical user interface environments and PC operating systems are discussed. <b>Prerequisite: CST 180 or CSC 108 or any 200-level CST or CSC course with a grade of C or higher [Graduation Requirement: STEM Related Course; Digital Literacy]</b>	
<b>Web Development and Design I – NCC CST 153</b>	<b>1 Credit</b>
This course provides the entry into the fast-moving website development industry. With its heavy hands-on mode of delivery, students will learn XHTML, Cascading Style Sheets, and be exposed to JavaScript. Adhering to standards, specifically from the World Wide Web Consortium (W3C) and the European Computer Manufacturers Association (ECMA), will play a dominant role in the creation of web pages that are both platform and browser independent. <b>Prerequisite: Eligibility for ENG 101 [Graduation Requirement: STEM Related Course; Digital Literacy]</b>	
<b>Web Development and Design II – NCC CST 252</b>	<b>1 Credit</b>
As a continuation of the Web Development and Design I class, this course continues the knowledge and skills development of a web developer. The course covers JavaScript in detail. Fundamentals such as data types, functions, arrays, loops, and conditionals are included. AJAX and Web 2.0 programming skills are developed. <b>Prerequisite: CST 153 [Graduation Requirement: STEM Related Course; Digital Literacy]</b>	
<b>Web Development with PHP – NCC CSC 257</b>	<b>1 Credit</b>
This course will introduce students to web development using PHP. Students will learn how to design web sites according to the MVC model. Object-oriented PHP will serve as the means by which the model component of the MVC-based web application is implemented. Session management will be used to deliver customized content. Students will also use the MySQL database in conjunction with PHP to create dynamic web applications. <b>Prerequisite: CSC 108 or CSC 207 or permission of Instructor [Graduation Requirement: STEM Related Course; Digital Literacy]</b>	
<b>XML for the World Wide Web – NCC CST 255</b>	<b>1 Credit</b>
The course builds on students' knowledge of HTML and JavaScript in the rich world of XML. Topics covered include creating well-formed and valid XML documents, Document Type Definitions (DTDs), namespaces, entities, XML Schemas, formatting using Cascading Style Sheets (CSS) and Extensible Style sheet Language (XSL) and transformations using XSL Transformations. <b>Prerequisite: CST 252 or CSC 108 or CSC 207 [Graduation Requirement: STEM Related Course; Digital Literacy]</b>	
<b>Introduction to C# - NCC CSC 245</b>	<b>1 Credit</b>
The features and tools of the C# language are covered in detail. Comparisons with Java and Visual Basic.Net will be offered. Visual Studio.Net environment, encapsulation, inheritance, polymorphism, exception handling, I/O common Language Runtime are discussed. Programming laboratories, supervised by the instructor, will be given. Three hours lecture; two hours of laboratory. <b>Prerequisite: CSC 108 or CST 252 or CSC 234 or permission of the instructor. [Graduation Requirement: STEM Related Course; Digital Literacy; Related Course]</b>	
<b>CAD Mechanical AutoCAD – NCC CAD 133</b>	<b>1 Credit</b>
The objective of this course is to give the student a basic understanding of Computer Aided Drafting using the latest version of AutoCAD. The student will learn drafting fundamentals for engineering through projects from various technical disciplines. Topics include drawing setup, text, dimensioning, layering systems, blocks, printing and plotting, orthographic and isometric views as well as an introduction to 3-D solid modeling. Upon finishing this course, students should be able to prepare drawings in their own engineering disciplines. One hour of class work; four hours of laboratory. <b>Prerequisite: Eligibility for ENG 101, MAT 136 [Graduation Requirement: STEM Related Course; Related Course]</b>	

<b>Parametric Design (Solid works) - NCC CAD 220</b>	<b>1 Credit</b>
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Solid works software will be taught as a tool in computer aided design. The focus of the course is on parametric design and proper use of CAD software to produce engineering parts, assemblies and drawings. Topics include: sketching techniques, dimensioning, Creating and editing 3D models, patterning, material designation and mass properties, assembly techniques, and creating 2D drawings. **Prerequisite: MAT 136 [Graduation Requirement: STEM Related Course; Related Course]**

<b>CSC 265 Software Engineering Methods</b>	<b>1 Credit</b>
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This course explores the methods of software application development following the software processes required for the production of high-quality software. Techniques for creating documentation and using software development tools will be presented. Students will understand and apply the practices of lean and agile development, including stakeholder feedback, use cases, user stories, iterative development, stable/consumable code, continuous integration, test driven development, and value stream maps. **Prerequisite: CST 252 or CSC 108 or CSC 207 [Graduation Requirement: STEM Related Course; Digital Literacy]**

<b>Introduction to Artificial Intelligence - CSC XXX</b>	<b>1 Credit</b>
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This course introduces students to artificial intelligence and machine learning programming. Topics include the history of AI, programming in Python, data structures, algorithm analysis, agile development, web frameworks, and more. Both theory and implementation of AI will be covered. Students will create programs using the fundamentals of artificial intelligence for desktop, mobile, and web. 3 hours lecture, 2 hours lab. **Prerequisite: CSC 108 Introduction to Programming and CSC 233 Database Development I [Graduation Requirement: STEM Related Course; Digital Literacy]**

<b>CSC XXX (no code yet) Artificial Intelligence II – Machine Learning</b>	<b>1 Credit</b>
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A continuation of Introduction to Artificial Intelligence, this course teaches students the key concepts of supervised and unsupervised learning algorithms. Students will learn how to master common methods of data processing and feature engineering, process text and images, and gain hands on experience in programming machine learning algorithms. 3 hours lecture, 2 hours lab. **Prerequisites/co-requisites: CSC 2XX Introduction to Artificial Intelligence [Graduation Requirement: STEM Related Course; Digital Literacy]**

<b>Internet Commerce Technology – NCC CSC 111</b>	<b>1 Credit</b>
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As a continuation of the Web Development and Design I class, this course continues the knowledge and skills development of a web developer. The course covers JavaScript in detail. Fundamentals such as data types, functions, arrays, loops, and conditionals are included. AJAX and Web 2.0 programming skills are developed. **Prerequisite: Eligibility for ENG 101 [Graduation Requirement: STEM Related Course; Digital Literacy]**

<b>ENGLISH</b>
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<b>English 1</b>	<b>Grade 9</b>	<b>1 Credit</b>
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This course is an exploration of the reading-writing connection. Students will use the writing process and technology to develop writing proficiency using four core and four ancillary titles of world literature selections. Students will also work on speaking and listening, vocabulary development, comprehension strategies, and logical thinking and study skills. All students will be required to maintain a writing portfolio, keeping on file a variety of writing assignments to be reviewed periodically. **[Graduation Requirement: English]**

<b>Honors English 1</b>	<b>Grade 9</b>	<b>1 Credit</b>
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This accelerated English course will consist of an in-depth examination of both fiction and nonfiction. An emphasis will be placed on the various forms of discourse (e.g., persuasive, expository, narrative, and descriptive). Students will learn the components and skills associated with creating an analytical paper and close reading techniques. Students will read the required four core texts and multiple ancillary texts. All students will maintain a writing portfolio for self- and teacher-assessment of writing progress. This course will provide an intensive educational opportunity for qualified, highly-motivated students. Students are required to complete a summer reading and writing assignment in advance of taking this course. **Prerequisite: Eighth-grade teacher recommendation based on student’s interest and motivation. [Graduation Requirement: English]**

<b>English 2</b>	<b>Grade 10</b>	<b>1 Credit</b>
<p>In this course, students will acquire the skills and develop the vocabulary necessary to read the major genres of literature: the novel, short story, drama, poetry, essay, and biography. Four core and four ancillary titles will be studied. Students will study the various techniques of developing and researching a topic and will write papers and develop multimedia presentations using these skills. Instruction will focus on response writing and the persuasive essay. Grammar, research, vocabulary, and oral communication skills will also be emphasized. Representative written assignments will be kept in their portfolios for periodic review. <b>[Graduation Requirement: English]</b></p>		
<b>Honors English 2</b>	<b>Grade 10</b>	<b>1 Credit</b>
<p>This accelerated English course will consist of an in-depth analysis of challenging classical and contemporary short stories, drama, novels, poetry, non-fiction, and biographies. Selections will include, but are not limited to, the four core and four ancillary books for 10th grade. In addition, the course will stress the writing process and include an emphasis on expository, research and thesis writing. Work will be collected in a portfolio to be examined periodically. Other activities will include the acquisition of grammatical skills, the development of vocabulary, the application of literary terminology, and the development of oral communication skills. The course will provide an intensive, educational opportunity for qualified, highly-motivated students. Students are required to complete a summer reading and writing assignment in advance of taking this course. <b>[Graduation Requirement: English]</b></p>		
<b>English 3</b>	<b>Grade 11</b>	<b>1 Credit</b>
<p>Students in this course will read major writers of American Literature from the early colonial period to the present to become aware of their cultural traditions. All students will read four core and four ancillary titles. Through their reading, discussions, vocabulary work, and writing, students will develop an awareness of their place in society and their value as an individual. Students will develop research skills and use the writing process to develop creative, analytical, and persuasive pieces. Students will maintain a portfolio of written work. <b>[Graduation Requirement: English]</b></p>		
<b>Honors English 3</b>	<b>Grade 11</b>	<b>1 Credit</b>
<p>Students in this accelerated English course will develop the ability to examine the growth of American Literature from the colonial to the contemporary period. Through a critical analysis of the works of major American writers, students will achieve knowledge of their cultural traditions, an understanding of the development of American literary thought, and an awareness of their place in society. Titles will include, but are not limited to, the four core and four ancillary titles of the 11th grade curriculum. Students will write papers and produce multimedia presentations to increase their skills in the techniques of expository, narrative, and research writing. Work will be collected and maintained in individual portfolios, which will be reviewed periodically. Students do intensive vocabulary study and will make use of literary terminology in their discussions and written work. This course will provide an in-depth, challenging study of American Literature for the qualified, highly motivated student. Students are required to complete a summer reading and writing assignment in advance of taking this course. <b>[Graduation Requirement: English]</b></p>		
<b>Senior English Core Related Courses (2 courses required)</b>	<b>Grade 12</b>	<b>.5 Credit each</b>
<ol style="list-style-type: none"> <li><b>1. Modern Cultural Identity</b> - Students will be introduced to multicultural literary perspectives and the course will examine the effects of such issues on modern society such as ethnicity in America, the melting pot theory, separatism, cultural pluralism, legal issues, and bilingual education and instruction. Through reading, writing, active discussion, and research, students will reflect on the increasingly diverse social landscapes within their communities, educational institutions, and careers.</li> <li><b>2. Ghosts, Monsters, Mysteries and Madness: <i>The Stories, Legends, and Obsessions of the Gothic Age</i></b> - This course uses high-interest genre of horror and murder mystery stories to engage students in investigating the historical background of Gothic Romanticism during the Victorian Era. Through reading, active discussion, and research, students explore the conflicted coexistence of logic and irrationality within the literature of our technological age.</li> <li><b>3. Stories from the Great Beyond: Modern Science Fiction Journeys through Space, Time, and Culture</b> - This course explores the world of modern science fiction and the role it has played in our cultural imaginations over the last two centuries. Science fiction reflects humanity's relationship to technology, the environment, and the great unknown. Through reading, active discussion, and research, students will engage with the science fictional thought experiments of the past, borrowing from the genre's imaginative imperatives, and purportedly logical frameworks, to assess the potential repercussions of real-world events and of emerging technologies. <b>[Graduation Requirement: English]</b></li> </ol>		

<b>Advanced Placement Language and Composition</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>Students will become skilled readers of prose written in a variety of rhetorical styles and writers who compose for a variety of purposes. Both their reading and their writing should make students aware of the interactions among a writer’s purposes, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effectiveness of writing. Students are expected to take the Advanced Placement exam. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. <b>[Graduation Requirement: English]</b></p>		
<b>The Graphic Novel</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
<p>A graphic novel is a publication utilizing both text and imagery simultaneously to present either a narrative or a nonfiction piece of writing. Students will outline, write, storyboard, and produce their own graphic novel in the half-year class. During this time, students will focus on writing skills such as character, setting, and plot creation. They will engage in writing process and utilize creative writing strategies in combination with a visual arts component where students will also be responsible for the graphic arts portion of the course. Students will design characters, storyboard their writing, learn how to design a graphic novel page, and illustrate their written work as they produce it. The reading and analysis of successfully published original graphic novels will serve as models for publication. <b>[Graduation Requirement: Related Courses]</b></p>		
<b>From Text to Tech</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
<p>From Text to Tech explores literary adaptations that range beyond the stage and cinema. Musicians, electronic game designers, and multimedia installation artists frequently use literature as their source material for new interpretations of familiar characters and stories. This course expands upon traditional literary analysis to deconstruct the interactive qualities and aesthetic properties that different technological mediums can bring to the table. Dante’s <i>Inferno</i> is a cornerstone of the western canon and though it pains many to see it adapted into a violent, thrill-ride video game, a new media adaptation like this can be an entry point for future generations of readers. Grounded in the source literature itself, and examples of adaptations to more traditional artistic mediums, students will interpret productions of anime, augmented reality/ virtual reality, public and multimedia art, computer-aided graphic design, and video games (both mass market and “indie”). Students will write analyses and produce creative projects in response to these unique adaptations of classic literature. <b>[Graduation Requirement: Related Courses]</b></p>		
<b>Rethinking Gender in Literature</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
<p>This literature and writing course takes a historical approach to exploring the evolution of gender relations within American society. Gender and Literature is a focused survey of women’s contributions to American letters, undergirded by historical and theoretical works of non-fiction. Core literary texts include novels, poetry, essays, and multimedia. These selections will reflect questions, arguments, and observations brought to light by women’s social equality movements from early suffragists up through our present moment in the technological age. Non-fiction selections will provide context, and additional bases for student argumentation. Course content may incorporate readings from adjacent disciplines, such as anthropology, psychology, political science, economics, linguistics, and/or medicine. <b>[Graduation Requirement: Courses]</b></p>		
<b>Wilderness: Environmental Justice in the 21st Century</b>	<b>Grade 9, 10, 11, 12</b>	<b>.5 Credit</b>
<p>This course will be interactive and collaborative with a hands-on approach that will focus on authentic experiences in nature and will provide students with the opportunity for creating, planning, organizing, and fundraising field trips to test and build skills. This course will prepare students to be strong leaders with teamwork and communication skills that will not only prepare them for survival in nature, but also how to survive in school and in their community. This course will explore the evolving relationship humans have in nature and will focus on environmental justice and ethics in the 21st century. <b>[Graduation Requirement: Related Course]</b></p>		
<b>Yearbook in Design</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>Students will study the function, techniques, and responsibilities of journalism design. Students will use Photoshop, Windows, and the Adobe Suite in creating pages and advertisements for the school’s yearbook. Students also will have instructions on marketing to sell and distribute the final product. <b>[Graduation Requirement: Related Course]</b></p>		

<b>Integrated SAT Prep</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course is intended to prepare students for the evidenced-based reading, writing, and math segments of the SAT. Teachers will provide students with activities in analytical thinking and with the skills and strategies associated with the evidence-based reading and writing section and the math section of the redesigned SAT. Topics covered include developing a study plan, vocabulary, sentence completion strategies, reading comprehension, and essay-writing strategies, as well as time management, scoring procedures, and strategies for managing test anxiety. Course materials may include SAT review materials, current assessment software programs, and previous standardized examinations. This course **does not** fulfill the graduation credit in English or mathematics. **[Graduation Requirement: Related Course]**

<b>Creative Writing</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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Students will study many aspects of writing technique and will apply these techniques to the following writing options: short stories, poetry, one act plays, T.V. scripts, and children's stories. Students will be encouraged to write for an audience by sharing their work aloud with classmates and by submitting their writing for publication as appropriate. Students take this course in addition to the required core English course. **[Graduation Requirement: Pathway Related Course]**

<b>Dramatic Experience</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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Dramatic Experience is designed to allow students the opportunity to experience drama through reading, discussion and dramatic presentation. Significant works, classical to contemporary, will be examined in the context of dramatic structure, theme, and the evolution of theater. Students will explore different acting techniques and styles with an emphasis on developing the actor's instrument (voice and body), ensemble work, improvisation, monologue, acting for the camera, and scene performance. Students will also experience the art of oratory (speech), which includes crafting individual dramatic pieces. This is an ideal opportunity for students to become immersed in the world of the theater and gain an introductory knowledge of dramatic theory. Students will learn how to analyze the subtext of a play and learn the psychological nature of characterization. Each student will develop a performance project to be staged in front of a live audience. Students will apply the acting and oratory techniques learned during this half-year course. **[Graduation Requirement: Related Course]**

<b>Digital Storytelling</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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Storytelling will be a great option for any student who wants to learn more about the conventions of filmmaking and how to use various forms of technology to tell interesting and compelling stories. The course will introduce elements of storytelling and will encourage creativity and teamwork through a variety of projects such as video narratives, memoirs, poetry, short films, and more. **[Graduation Requirement: Related Course]**

<b>Approaches to Film and Media Study</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This one-semester English related course teaches students to view, discuss, and write about films critically in order to understand the ways in which films convey meaning, express points of view, influence public opinion, and reflect the time period. Students will learn about the history of film, the basics of film theory, and the critical analysis of film. Although films will be viewed in class, students will be expected to view films at home and in the movies. Genres and movements of film include, but are not limited to, Film Noir, Impressionism, montage, science fiction/fantasy, westerns, Cinema Verite, and silent films. Possible readings include film analyses, directors' notes, texts on which films are based, screenplays, and reviews. Students will use a variety of media to respond to their viewing. **[Graduation Requirement: Related Course]**

<b>Composition – NCC ENG 101</b>	<b>1 Credit</b>
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This course develops students' abilities to write effective essays and to reason critically. A review of grammar and syntax, as needed, is included. The goals of unity, coherence and logical development are pursued through analysis of professional and student essays and through practice of pre-writing, writing and revision techniques. Students learn various organizational patterns. Students will write and revise several essays. A portfolio is required. **Prerequisites: Placement determined by college entrance exam, completion of ENG 088 with a grade of B (ENG 101 traditional) or with a grade of C- or better for ENG 101/ENG 101W (Workshop), or by recommendation of ESL faculty [Graduation Requirement: English]**

<b>Literature and Composition – NCC ENG 102</b>	<b>1 Credit</b>
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This composition course is a continuation of work on skills begun in ENG 101. Students receive further instruction in composition and write frequently in and out of class. The analytical and critical essays they produce focus on fiction, drama, and poetry. To prepare for these writing tasks, students learn how to read and appreciate various literary genres, how to interpret literature, and how to explain and support their ideas in writing. **Prerequisite: ENG 101 [Graduation Requirement: English]**

<b>Public Speaking – NCC COM 173</b>	<b>1 Credit</b>
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The course introduces students to the communication techniques needed to organize and deliver oral messages in a public setting, with emphasis on extemporaneous speeches that inform, demonstrate and persuade. Basic communication theory, including reasoning patterns and logical fallacies, is covered. **Prerequisites: Eligibility for ENG 101 [Graduation Requirement: Related Course]**

<b>The Creative Voice – NCC IDS 210</b>	<b>1 Credit</b>
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Defining art in its broadest sense to include visual, performance and media arts, as well as literature, music and philosophy, this course encourages students to explore the nature of creative expression. Students will learn to identify and evaluate these art forms, and, in the process, they will be asked to see relationships and make connections between various forms of creative expression. In addition to theoretical discussion of the humanities, students will engage in and explore their own creative processes. **Prerequisite: ENG 102 [Graduation Requirement: English]**

<b>Great Books – NCC IDS 230</b>	<b>1 Credit</b>
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Recommended for Honors Program Candidates, this interdisciplinary Great Books seminar focuses on a variety of questions that are central to the human condition, such as What is Justice? What is Beauty? and What is Race? The methodology of textual close reading and Socratic discussion is emphasized, including the shared responsibilities of an inquisitive, dialogue-centered learning community and the communication of complex ideas that emerge from the reading of foundational texts. **Prerequisite: ENG 102 [Graduation Requirement: English]**

<b>FAMILY AND CONSUMER SCIENCE</b>
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<b>Principles of Culinary Arts</b>	<b>Grade 9, 10</b>	<b>.5 Credit</b>
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Through a combination of demonstration and hands-on practice, students will be introduced to the basic principles of cookery, including recipe interpretation, measurements, food safety, and basic cooking methods. **[Graduation Requirement: Pathway Related Course]**

<b>Culinary Arts 1</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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Students will discover what makes a restaurant successful and examine principles of nutrition, food production and service. Students will prepare and serve a variety of foods in an industrial kitchen and visit local hotels and restaurants. *Students will learn using the industry-standard Prostart 1 curriculum.* **Prerequisite: Principles of Culinary Arts [Graduation Requirement: Pathway Related Course]**

<b>Culinary Arts 2</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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Students will apply basic principles of food production and service covered in year one. They will extend their knowledge and understanding of cold kitchen, cooking methods, ethnic and regional cuisines, baking and pastry arts, charcuterie, and dining room management through practical application. *Students will learn using the industry-standard Prostart 2 curriculum.* **Prerequisite: Culinary Arts 1 [Graduation Requirement: Pathway Related Course]**

<b>Culinary Arts 3</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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Students will apply theory and practical knowledge through techniques learned in Culinary Arts 1 and 2. Students will conduct research and produce special projects in addition to acting as an assistant chef instructor to students in Culinary Arts 1 and 2 courses. Students will assist the head chef in preparing and catering events within the school building and off campus locations as well. **Prerequisite: Culinary Arts 1 and 2 [Graduation Requirement: Pathway Related Course]**



## HEALTH EDUCATION AND SAFETY

### Health Education 1

Grades 9, 10

.5 Credit

The health courses develop the concept that a person's health is greatly influenced by the kind of information that a person has and the way this information is used in making decisions about the individual's life. Life skills integrated throughout coursework are: accessing reliable information, advocacy, analyzing influences, decision making, goal setting, and not limited to student self-management. The Health Curricula focus on Four State standards: Healthy and Active Life, Injury and Disease Prevention, Human Growth and Development, Substance Abuse Prevention. *Students must pass 1 credit of health and safety to graduate.* **[Graduation Requirement: Health and Safety]**

1. **Suggested Health 1 Core Units:** Physical, Social and Mental Wellness, Nutrition, Physical Activity planning, First Aid, CPR/AED, Human Growth, Development, Sexuality, AIDS prevention, Alcohol use, Drug use/abuse, and Leadership concepts and practices.

### Health Education 2

Grades 11, 12

.5 Credit

The health courses develop the concept that a person's health is greatly influenced by the kind of information that a person has and the way this information is used in making decisions about the individual's life. Life skills integrated throughout coursework are: accessing reliable information, advocacy, analyzing influences, decision making, goal setting, and not limited to student self-management. The Health Curricula focus on Four State standards: Healthy and Active Life, Injury and Disease Prevention, Human Growth and Development, Substance Abuse Prevention. *Students must pass 1 credit of health and safety to graduate.* **[Graduation Requirement: Health and Safety]**

2. **Suggested Health 2 Core Units:** Physical, Social and Mental wellness, Suicide Prevention, Disease Prevention, including lifestyle, infectious diseases and self-examinations, Alcohol use, drug use and abuse, healthy relationships, First Aid, CPR/AED, Safety, and Family concepts.

### Responding to Emergencies

Grades 10, 11, 12

.5 Credit

The primary purpose of the American Red Cross Responding to Emergencies: Comprehensive First Aid/CPR/AED program is to help students recognize and respond appropriately to cardiac, breathing and first aid emergencies. The courses in this program teach students the knowledge and skills needed to give immediate care to an injured or ill person and to decide whether advanced medical care is needed. Upon successful completion of all skills and assessments, students will earn the appropriate American Red Cross certification. **[Graduation Requirement: Health and Safety]**

## JROTC

### Aerospace Science and Leadership 1 (New Cadets Only)

Grade 9, 10, 11, 12

.5 Credit

This Aerospace Science portion of this course focuses on the development of flight throughout the centuries. It also looks at the world's cultures, introducing students to world cultures through history, geography, religions, languages, culture, political systems, economics, social issues, environmental concerns, and human rights.

The leadership curriculum provides an essential component of leadership education for today's high school students. The "LE-300 Life Skills" portion of this course provides an essential component of leadership education for today's high school students. This course includes innovation skills-critical thinking and problem solving, communication and collaboration, and creativity and innovation; information, media, and technology skills. The highlights of this course are finance; budget, bank accounts, and other real-life issues in buying and selling. We also look at careers, college, and resume writing.

The mission of the Air Force Junior Reserve Officer Training Corp (AFJROTC) is to develop citizens of character dedicated to serving their nation and community. *There is "No Military Commitment" for our cadets. See notes section below for additional information on this courses program of studies.* **[Graduation Requirement: Pathway Related Course]**

<b>Aerospace Science and Leadership 2 (Returning Cadets)</b>	<b>Grade 10, 11, 12</b>	<b>.5 Credit</b>
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AS-200: The Science of Flight is an introductory course that focuses on how airplanes fly, how weather conditions affect flight, and the human body, and flight navigation. The course is designed to complement materials taught in math, physics, and other science-related courses. LE 400: Fundamentals of Management provides an introduction to basic management concepts and skills, especially as they relate to managing in a JROTC unit. Along the way, you will learn some of the history of management studies and encounter elements of more recent management research. This is a two-semester course for all returning cadets.

The mission of the Air Force Junior Reserve Officer Training Corp (AFJROTC) is to develop citizens of character dedicated to serving their nation and community. *There is "No Military Commitment" for our cadets. See notes section below for additional information on this courses program of studies.* **Prerequisite: Aerospace Science 1 [Graduation Requirement: Pathway Related Course]**

**Note 1:** All AS-1, AS-2, AS-3, AS-4

**Wellness Program:** Motivates cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives. This is also 20% of a cadet's overall grade. All cadets must return the health questionnaire and parental/guardian permission form prior to participating in Wellness. At the beginning of the school year cadets are tested on the following: v-sit reach, chin-ups, push-ups, sit-ups, shuttle run, and 1-mile distance run. At the end of the school year cadets do this assessment again and see if their fitness level has increased. All cadets earn the Wellness Ribbon if they participate throughout the year and complete the 1-mile distance run in less than 10 minutes.

**Note 2:** In addition, instructors may utilize Unlocking your Potential, National Endowment for Financial Education, and Drill curriculums.

**Note 3:** College-bound students who elect to take ROTC in college receive the credit for general military training, if they complete the first year of ROTC GMT if AE-1, 2 and 3 in high school. Armed Forces-bound students who complete three years of Aerospace Education may enlist in the United States Air Force at two pay grades higher (E-3). Students completing three years of Aerospace Education receive special competitive consideration for AFROTC Scholarship and United States Air Force Academy appointment.

**Note 4:** Our curriculum changes annually based on a 7-Year Revolving Curriculum map. The following are curriculum covered over a four-year period. (AS-100 A Journey into Aviation History, LE-100 Traditions, Wellness, and Foundations of Citizenship (2015), AS-200 The Science of Flight, LE-200 Communication, Awareness, and Leadership (2<sup>nd</sup> Edition), AS-220 Cultural Studies, AS-300 Exploring Space, LE-300 Life Skills, LE-400 Principles of Management, UYP Unlocking Your Potential, NEFE National Endowment of Financial Education, Drill Cumulative Drill.

<b>MATHEMATICS</b>
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<b>Intensified Algebra 1</b>	<b>Grades 9</b>	<b>2 Credits</b>
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In this course students examine real world problems using tables, graphs, and equations. Topics include number patterns, linear equations, proportions and percent, positive and negative numbers, writing formulas, slopes and intercepts, data analysis, systems of linear equations, common laws of exponents and probability and statistics. Successful completion gives the student one credit in mathematics and one credit for a math related course. The one additional math related credit or STEM credit does not fulfill graduation credit in mathematics. **[Graduation Requirement: 1 credit Math core and 1 credit Math Related Course]**

<b>Algebra 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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In this course students examine real world problems using tables, graphs, and equations. Topics include number patterns, linear equations, proportions and percent, positive and negative numbers, writing formulas, slopes and intercepts, data analysis, systems of linear equations, common laws of exponents and probability and statistics. In addition, students will engage in an extensive study of systems of linear equations as well as an introductory study of quadratic equations and expressions.

**[Graduation Requirement: Math core; STEM Related Course]**

<b>Applied Geometry</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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In this course, students will study lines, angles, triangles, polygons, circles, and three-dimensional figures using both inductive and deductive reasoning. Topics include transformations and the coordinate plane; congruence, proof and constructions; polygons; similarity, proof, and trigonometry; circles, and other conic sections; extensions to three dimensions; and applications of probability.

**Prerequisite: Algebra 2 [Graduation Requirement: Math core; STEM Related Course]**

<b>Algebra 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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The major theme of this course is functions. The concept of functionality will be developed fully, and course includes a study of linear, quadratic, exponential, and polynomial. Also included in this course is content with probability and statistics. **Prerequisite: Intensified Algebra 1 or Algebra 1. May be taken concurrently with Geometry [Graduation Requirement: Math core; STEM Related Course]**

<b>Honors Algebra 2</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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The operations of the complex number system, linear, polynomial, quadratic, cubic, and quartic equations, logarithms and exponents, permutations, combinations, probability, coordinate geometry, conic sections and sequences and series, will be included in the course. Students will have the opportunity to enhance their mathematical experience through various forms of technology. The topics covered in this course will help prepare students for future college math courses. **Prerequisite: Intensified Algebra 1 or Algebra 1. [Graduation Requirement: Math Core; STEM Related Course]**

<b>Topics in Algebraic Reasoning (Science)</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
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This inquiry-focused course is built around a compacted 5E instructional model, whereby students Engage in hands-on activities to help activate prior knowledge and explore a series of investigations to look for patterns and make conjectures relating to various scientific topics. The hands-on learning approach guides students to use the learning from multiple activities so that they can Explain their reasoning in a formalized way. In this course will delve into a variety of real-world science applications where they will use quantitative and logical reasoning skills to investigate current ecological problems around the globe. This class supports the development of critical thinking, quantitative reasoning, evaluation of news reports, and scientific literacy as they mathematically model problems and derive solutions. **Prerequisite: Algebra 2 [Graduation Requirement: Math Credit; STEM Related Course]**

<b>Topics in Algebraic Reasoning (Engineering)</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
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This inquiry-focused course is built around a compacted 5E instructional model, whereby students engage in hands-on activities to help activate prior knowledge and explore a series of investigations to look for patterns and make conjectures relating to various engineering related topics. The hands-on learning approach guides students to use the learning from multiple activities so that they can explain their reasoning in a formalized way. In this course students will delve into a variety of engineering applications where they will dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. This class supports the development of critical thinking, quantitative reasoning, evaluation of news reports, and engineering literacy as they mathematically model problems and derive solutions to real world applications. **Prerequisite: Algebra 2 [Graduation Requirement: Math Credit; STEM Related Course]**

<b>Integrated Algebra and Geometry</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This course is designed with two goals. First, it develops a solid understanding of Algebra 1 material, while building foundational conceptual understanding of Geometry and Algebra 2 concepts. Second, it cultivates the essential skills and habits required to make use of mathematics, including the ability to approach challenging problems and to communicate mathematical ideas clearly. The mathematical content of the course includes more advanced applications of material from Algebra I, as well as material drawn from the traditional content of Geometry and some Algebra 2. Topics are woven throughout the course to build a deeper understanding. **Prerequisite: Algebra 1 or Intensified Algebra [Graduation Requirement: Math Credit core; Math Related Course; STEM Related Course]**

<b>Business Mathematics</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course is designed to introduce the basic mathematical skills needed to understand, analyze, and solve mathematical problems encountered in business and finance, and in investment decision making. The topics covered will include accounting, finance, insurance, statistics, taxation, and other math-related subjects. Consumer math applications, such as bank reconciliation, discounting, markups and markdowns, installment purchases, and simple and compound interest are also covered. **Co-requisite: Algebra 2 [Graduation Requirement: Math credit; STEM Related Course]**

<b>Mathematics and Society</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course is an exploration of the mathematical techniques used to solve problems in society. Specific topics are chosen from among the following: voting and power; division and apportionment; graph theory and scheduling; cryptography, game theory, symmetry, and form; and probability. **Prerequisite: Algebra 2 [Graduation Requirement: Math credit; STEM Related Course]**

<b>Precalculus</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This course will expand the student's knowledge of functions. Polynomial, exponential, logarithmic, and trigonometric functions and their applications will be studied in depth. Also included are other topics in trigonometry, sequences and series, probability and some analytic geometry. Students will have the opportunity to enhance their mathematical experience through various forms of technology. The topics covered in this course will help prepare students for future college math courses. **Prerequisite: Algebra 2 [Graduation Requirement: Math core; STEM Related Course]**

<b>Honors Precalculus</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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All of the topics of Precalculus will be covered, with a more theoretical emphasis. In addition, the student will study rational functions, polar and parametric equations, and vectors. **Prerequisite: Algebra 2 [Graduation Requirement: Math core; STEM Related Course]**

<b>Probability and Statistics</b>	<b>Grades 10, 11, 12</b>	<b>.5 credit</b>
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Probability and Statistics is studied intuitively and formally. Topics include permutations and selections, mathematical induction, frequency distributions and measure of central tendency, binomial distribution with applications to hypothesis testing infinite population sampling. It is recommended that students take Algebra 2 prior to taking Probability and Statistics. Students will have the opportunity to enhance their mathematical experience through various forms of technology. The topics covered in this course will help prepare students for future college math courses. **[Graduation Requirement: Math core; STEM Related Course]**

<b>Statistics</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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Statistics topics studied include describing data with graphs, distributions, histograms, and other graphical techniques. Students will also use statistical measures of center and spread to analyze data and graphical displays. Probability topics include: probability rules, probability distributions-discrete, binomial, Poisson, and normal distributions. Other topics studied are sampling design, sampling distributions, hypothesis testing and confidence intervals for one mean and one proportion samples using z-tests and t-tests. **Prerequisite: Algebra 2 Graduation Requirement: Math Credit; Math Related Course; STEM Related Course]**

<b>Integrated SAT Prep</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course is intended to prepare students for the evidenced-based reading, writing, and math segments of the SAT. Teachers will provide students with activities in analytical thinking and with the skills and strategies associated with the evidence-based reading and writing section and the math section of the redesigned SAT. Topics covered include developing a study plan, vocabulary, sentence completion strategies, reading comprehension, and essay-writing strategies, as well as time management, scoring procedures, and strategies for managing test anxiety. Course materials may include SAT review materials, current assessment software programs, and previous standardized examinations. This course does not fulfill the graduation credit in English or mathematics. **[Graduation Requirement: Related Course]**

<b>Intermediate Algebra –NCC MAT 136</b>		<b>1 Credit</b>
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Includes a study of functions, relations, and graphs; applications; linear functions and inequalities; quadratic and other polynomial functions; exponents and radical expressions; rational expressions and equations; and systems of equations. Department exit assessment is required. Students must earn a C- or higher to move to the next level course, MAT 146, MAT 172 or MAT 201. **Prerequisite: High School Algebra 2 and appropriate placement test score [Graduation Requirement: Math; STEM Related Course]**

<b>College Algebra – NCC MAT 172</b>		<b>1 Credit</b>
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TI graphing calculator is required. Topics include concepts of functions; numeric, algebraic, and graphic techniques as applied to the following functions: polynomial, piecewise, rational, radical, exponential, logarithmic; complex numbers; applications; and systems of equations. Topics that might be included are recursively defined functions and topics in analytic geometry. Department exit assessment is required. **Prerequisite: MAT 136E or MAT 136 with a grade of C- or higher or appropriate placement test score [Graduation Requirement: Math; STEM Related Course]**

**Pre-Calculus - NCC MAT 186****1 Credit**

TI graphing calculator required. Topics include concepts of functions; numeric, algebraic, and graphic techniques applied to the following functions: polynomial, radical, rational, exponential, logarithmic, and circular/trigonometric; right triangle trigonometry and applications; trigonometric identities and equations; applications; topics in analytic geometry. Department exit assessment is required. **Prerequisite: MAT 172 with a grade of C- or higher or equivalent [Graduation Requirement: Math; STEM Related Course]**

**Statistics – NCC MAT 201****1 Credit**

TI graphing calculator required. Concepts of population and sample, basic experimental designs, introduction to data collection methods; organizing and describing data with graphical techniques and numerical methods; basic probability theory; discrete and continuous probability distribution; normal curves and applications; making inferences about populations (a) point estimates (b) interval estimates (c) hypothesis tests; relationships between two variables, (a) scatter plots (b) correlation (c) regression. Department exit assessment is required. **Prerequisite: MAT 136E or MAT 136 with a grade of C- or higher or appropriate placement test score; eligibility for ENG 101 or permission of instructor. [Graduation Requirement: Math; STEM Related Course]**

**Discrete Math – NCC MAT 210****1 Credit**

This course is designed to prepare math, computer science and engineering majors for a background in abstraction, notation, and critical thinking for the mathematics most directly related to computer science. Topics include: logic, relations, functions, basic set theory, proof techniques, mathematical induction, graph theory, combinatorics, discrete probability, recursion relations, elementary number theory and graph theory. **Prerequisite: MAT 186 with a grade of C- or higher or appropriate placement test score; eligibility for ENG 101 or permission of instructor. [Graduation Requirement: Math; STEM Related Course]**

**Calculus I - NCC MAT 254****1Credit**

TI graphing calculator required. Topics include limits and continuity; derivatives; techniques of differentiation; applications of differentiation; anti-derivatives; Fundamental Theorem of Calculus and the definite integral; applications of the integral; trapezoidal and Simpsons rules. Department exit assessment is required. **Prerequisite: MAT 186 with a grade of C- or higher [Graduation Requirement: Math; STEM Related Course]**

**Introduction to Engineering – NCC EGR 111****1 Credit**

Students will be introduced to the fields of engineering through design and graphics and comprehensive engineering projects. Topics include: sketching, charts, graphs, forces, energy, electrical circuits, mechanisms, robotics, manufacturing technologies, and fundamentals of engineering economics. **Prerequisite: MAT 136 or a satisfactory score on mathematics assessment test. [Graduation Requirement: Math; STEM Related Course]**

**MULTILINGUAL LEARNER (MLL) EDUCATION**

Students identified as **Multilingual Learners (MLLs)** are tested and placed in **English classes designed for MLLs**, which assist students in acquiring skills in listening, speaking, reading and writing, as well as skills needed to be successful in academic courses. Once designated as an MLL, students are tested yearly until they reach the CT State mandated English Mastery Standard. Bilingual courses are offered to Spanish-speaking MLLs who need Spanish support in learning content-area material. Bilingual support to complete content-area assignments is offered through our MLL Intervention Labs to Spanish speakers and, additionally to Haitian Creole speakers at BMHS.

For math, science, and social studies instruction, MLLs are placed in classes of certified content teachers who have been trained in the effective strategies for teaching English learners. These teachers teach the regular course content using specific strategies to provide MLLs access to the curriculum. **MLLs who have reached Level 3 Overall on the LAS Links are encouraged to enroll in mainstream content classes; teachers provide supports so that students can access the content and be successful.**

### MLL Procedures

3. NPS MLL Welcome Center at Central Office administers the English LAS Links, Spanish LAS Links, and a math placement test and takes into consideration prior educational history. A recommendation is made for the appropriate MLL English class.
4. Results are disseminated to the schools and MLL Dept. Chairs work with other department chairs to determine course recommendations. If agreement cannot be reached, MLL Department Chairs make final decision on recommendations. Registrar makes final decisions.

### LAS Links Placement Guidelines

English Foundations = No English/ low LAS Links Overall Level 1  
 English Development = LAS Links Overall Level 1 – 2  
 English Explorations = LAS Links Overall Level 2 – 3  
 English Literature = LAS Links Overall Level 3 – 4  
 Transition English = LAS Links Overall Level 3-5 with teacher recommendation

Please note: Course sequences are guidelines and decisions for individual students should be based on prior education and department chair recommendation.

### MLL Course Sequence by Content

Subject Area	First Course	Second Course	Third Course	Fourth Course	Fifth course
<b>English</b>	English Foundations	English Development	English Explorations	English Literature	<b>Transition English</b>
<b>Math</b>	MLL Math Foundations	MLL Intensified Algebra 1	MLL Algebra 2	MLL Geometry	
<b>Social Studies</b>	Bilingual (Spanish) World History <i>or</i> MLL World History	Bilingual (Spanish) US History <i>or</i> MLL US History	MLL Civics	Mainstream social studies class based on staff recommendation	
<b>Science</b>	MLL Earth and Integrated Physical Science		MLL Chemistry	Mainstream science class based on staff recommendation	
<b>World Language</b>	MLL Foundations with Spanish Language gaps placed in Native Language Spanish 1 MLL Biology OR Other Native Language Spanish or other World Language course based on prior education, placement test, and/or Department Chair recommendation				

### Other important notes:

1. MLLs that arrive with no prior English experience and therefore need to enroll in English Foundations are required to have an in-take meeting(s) which includes MLL Department Chair or designee, school counselor, and registrar prior to the student being enrolled. The student and his or her family need to attend or be informed of the recommendations.
  2. **MLLs will follow the regular course sequence (English Foundations, English Development, English Explorations, English Literature, Transition English), unless it is recommended by the MLL teacher that the student either advance a level or take English Literature and Transition English concurrently.**
  3. MLLs in grade 12 enrolled in English Literature must be concurrently enrolled in Transition English.
  4. In order to graduate, MLLs must also successfully complete one course in the regular English Department (Transition English fulfills this requirement.)
  5. After completing Transition English, it is recommended that MLLs enroll in the English course (2, 3, 4) that is one below their current grade level. (Exception: they should not enroll in English I since the curriculum is equivalent to Transition English.)
- If an MLL fulfills the 4 credit English requirement before senior year, he or she must continue to enroll in a Core English class every year.

<b>English Development – Beginners</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
<p>The course involves the sequential development of listening, speaking, reading and writing skills for students at the beginning and advanced beginning levels of English proficiency. Through a content-based approach, students acquire survival and basic communication, as well as reading and writing skills. <b>Successful completion gives the student one credit in English and one Pathway Related Course credit. Prerequisite: Students identified as English Learners. [Graduation Requirement: 1 credit Core English and 1 credit Pathway Related Course]</b></p>		
<b>English Explorations – Intermediate</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<p>This course is designed for students at the early intermediate level of English proficiency. Emphasis is placed on learning academic English – reading, writing, and grammar, especially related to the content areas. <b>Successful completion gives the student one credit in English. [Graduation Requirement: Core English]</b></p>		
<b>English Literature – Advanced</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is designed for students at the intermediate to advanced level of English proficiency. Continued emphasis is placed on learning academic English – reading, writing, and grammar, especially related to the content areas. <b>Successful completion gives the student one credit in English. [Graduation Requirement: Core English]</b></p>		
<b>Transition English</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course follows the English 1 curriculum but is designed for MLLs at the intermediate to advanced level of English proficiency. English teachers use instructional strategies that are effective with MLLs to prepare students to take a course in English core sequence the following year with mainstream peers. The curriculum of English 1 is an exploration of the reading-writing connection. Students will use the writing process and technology to develop writing proficiency using four core and four ancillary titles of world literature selections. Students will also work on speaking and listening, vocabulary development, comprehension strategies, and logical thinking and study skills. All students will be required to maintain a writing portfolio, keeping on file a variety of writing assignments to be reviewed periodically. <b>Successful completion gives the student one credit in English. [Graduation Requirement: Core English]</b></p>		
<b>English Literacy Workshop 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is primarily based on <i>System 44</i>, a research-based reading intervention program that is proven to help students master the foundational reading skills required for success through explicit instruction in phonics, comprehension, and writing. Instruction will be differentiated and tailored to the individual needs of each student. The model includes experiences in whole and small group instruction, independent reading, and technology-based learning. <b>[Graduation Requirement: Pathway Related Course]</b></p>		
<b>Bilingual World History</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<p>This course is a survey of World History from its origins to the 21<sup>st</sup> century, conducted in Spanish and English. It includes historical development of economics, and political, social and religious institutions with an emphasis on geography’s impact on historical and cultural development. <b>Prerequisite: Participation in the Bilingual (Spanish) Program. This course should be taken in conjunction with English Foundations, English Development, or English Explorations. [Graduation Requirement: Social Studies Related Course]</b></p>		
<b>Bilingual US History</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<p>This course conducted in Spanish and English, is designed for English learners and surveys the development of the American political, socio-cultural, and economic landscapes beginning with the exploration of the Americas until today. Students concentrate on specific time periods through American history with emphasis on important events and critical ideas. <b>Prerequisite: Participation in the Bilingual (Spanish) program. This course should be taken in conjunction with English Foundations, English Development, or English Explorations. [Graduation Requirement: US History Requirement]</b></p>		
<b>MLL World History</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is designed for English Learners and is a survey of World History from its origins to the 21<sup>st</sup> century. It includes historical development of economics, and political, social and religious institutions with an emphasis on geography’s impact on historical and cultural development. <b>This course should be taken in conjunction with English Foundations, English Development, or English Explorations. Students in the English Literature or Transition English course should take regular social studies classes. [Graduation Requirement: Social Studies Related Course]</b></p>		

<b>MLL US History</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is designed for English Learners and surveys the development of the American political, socio-cultural, and economic landscapes beginning with the exploration of the Americas until today. Students concentrate on specific time periods throughout American History with emphasis on important events and critical ideas. <b>Advanced English Literature and Transition English students should be in regular social studies classes. [Graduation Requirement: US History Requirement]</b></p>		
<b>MLL Civics</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
<p>This course is designed for English Learners and surveys the origins and institutions of the US Government. Emphasis is placed on the political organization and structure of our national, state and local governments as well as their development. The Constitution and its interpretation are studied through the use of Supreme Court decisions. Analysis and interpretation of outside readings are required. Students are encouraged to actively participate in the democratic process and will be given an opportunity to participate in the governmental process through fieldwork projects. <b>Prerequisite: This course should be taken upon completion of Bilingual/MLL World History &amp; Bilingual/MLL U.S. History. [Graduation Requirement: Civics Requirement]</b></p>		
<b>MLL Intensified Algebra 1</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
<p>This course is designed for English Learners and examines real world problems using tables, graphs, and equations. Topics include number patterns, linear equations, proportions and percent, positive and negative numbers, writing formulas, slopes and intercepts, data analysis, systems of linear equations, common laws of exponents and probability and statistics. <b>[Graduation Requirement: Math Core Credit; Math Related Course]</b></p>		
<b>MLL Algebra 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is designed for English Learners and the major theme is functions. The concept of functionality will be developed fully and includes a study of linear, quadratic, exponential, and polynomial. Also included in this course is content with probability and statistics. <b>Prerequisite: Intensified Algebra 1 or Algebra 1. May be taken concurrently with Geometry. [Graduation Requirement: Math Credit; Math Related Course; STEM Related Course]</b></p>		
<b>MLL Geometry</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course approaches the concepts of Geometry in a visual and interactive way. This course is fully aligned to the Connecticut Core Standards. Topics include: Transformations and the Coordinate Plane, Congruence, Proof and Constructions; Polygons; Similarity, Proof, and Trigonometry; Circles and other Conic Sections; Extensions to Three Dimensions; and Applications of Probability. <b>Prerequisite: MLL Algebra 2 [Graduation Requirement: Core Math]</b></p>		
<b>MLL Biology</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
<p>This course is designed for English Learners with emphasis of study placed on the biochemical, physiological, morphological, ecological, bacteriological, embryonic, nutritional, pathological and biographical natures of life. Upon completion of this course a student will have a knowledge of the principles on which all life depends, and an awareness of the interdependency of organisms in the biological world with reference to the balance of nature and conservation. <b>[Graduation Requirement: Biology/Life Science (Lab)]</b></p>		
<b>MLL Chemistry</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is designed for English Learners and includes topics similar to those in college prep level Chemistry. Those include: properties of materials, the transformations which matter undergoes, the conditions affecting those transformations and the nature and amount of energy released or absorbed in these changes, the uses of materials and creation of new substances. Students will learn the NGSS Standards focused on Chemical Reactions. Emphasis is placed upon mathematical application to chemistry and laboratory work. <b>Prerequisite: MLL Biology [Graduation Requirement: Chemistry/Physical Science (Lab)]</b></p>		
<b>MLL Earth and Integrated Physical Science (Lab)</b>	<b>Grade 9 (10, 11, if newly arrived)</b>	<b>1 Credit</b>

This course is designed for English learners and will focus on language acquisition, science skills, and scientific knowledge construction. This course is designed for English Learners with emphasis of study placed on students' understanding of the interconnections and feedbacks among the geosphere, hydrosphere, atmosphere, and anthroposphere as well as the physical aspects of motion, energy, forces, and waves and technology. Students will study climate systems and climate change, the human impacts on Earth systems and



issues of human sustainability, current global and regional data sets, the systems and transfer of energy, laws of force and motion, and waves and technological applications. Students will make projections for the future, analyze space systems and research, and use engineering design concepts to evaluate future societal choices in the earth, space, and physical sciences. Upon completion of this course a student will have a knowledge of principles including but not limited to: energy futures, resource management, space exploration and structures, land use, environmental impacts, pollution regulation, and applications of motion, waves, and energy. Prerequisite: Biology and/or Chemistry. **Co-requisite: English Foundations or English Development [Graduation Requirement: Chemistry/Physical Science; Science Related Course; STEAM Course]**

<b>MLL Culture and Career Seminar 1</b>	<b>Grade 9 (10, 11, if newly arrived)</b>	<b>.5 Credit</b>
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This one semester interdisciplinary course is designed as an introductory course for English learners. They will learn and apply 21st century skills, laying a foundation which will be used during their high school years and are applicable in the real world. In addition to an introduction to career exploration, the curriculum will focus on 'skills for success' including: communication skills, organizational skills, civic responsibility, problem solving, personal development (such as collaboration and self-advocacy), technology skills, and researching skills. Students will be learning how to succeed in high school and how these skills can be applied throughout life. **[Graduation Requirement: Related Course]**

<b>MLL Culture and Career Seminar 2</b>	<b>Grade 10, 11</b>	<b>.5 Credit</b>
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This one semester interdisciplinary course continues to develop English learners' skills for success with emphasis on post-secondary options. Students explore their passions and interests and how these interests might influence their career choices. They will start thinking about internship options and develop skills for resume writing and job interviews. They will also learn about the college application process and explore what different colleges have to offer. **Pre-requisite: MLL Culture and Career Seminar 1 [Graduation Requirement: Related Course]**

<b>MLL Career Exploration Internship</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
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This one semester internship provides students with real-world career experiences and an opportunity to connect learning in the Culture and Careers Seminar 1 and 2 with the workplace. With support from the MLL Career Pathways Facilitator, students will be able to hone their work and life skills within American culture. The experience will enhance students' opportunities for post-secondary success in the job world. **Prerequisite: successful completion of Culture and Careers Seminar 1 and 2 or Teacher Recommendation. [Graduation Requirement: Related Course]**

<b>MLL Intervention Lab</b>	<b>Grades 9, 10, 11, 12</b>	<b>0 Credit</b>
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This Lab is designed to give MLL students support in their academic courses. It should be taken concurrently with MLL Foundations and MLL Development, although other MLLs may enroll, especially if they enter Norwalk Public Schools after the start of the academic year. **[Graduation Requirement: Related Course]**

**Norwalk International Academy (NIA) - for MLLs who are newly arrived to the USA and may have gaps in their education.**

<b>English Foundations</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
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This course provides intensive English instruction with emphasis on school routines, survival English, oral skills, literacy development and cultural orientation. **Successful completion gives the student one credit in English and one Pathway Related Course credit. The one related course credit does not fulfill the graduation requirement in English. Prerequisite: Students identified as English Learners with gaps in their education. [Graduation Requirement: 1 credit Core English and 1 credit Related Course]**

<b>MLL Math Foundations</b>	<b>Grades 9, 10, 11</b>	<b>2 Credits</b>
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This course provides intensive Basic Math instruction with emphasis on the English and Math skills needed to prepare students for Algebra. **Successful completion gives the student one credit in Mathematics and one Pathway Related Course credit. The one related course credit does not fulfill graduation requirement in Mathematics. Prerequisite: Students identified as English Learners with gaps in their education. [Graduation Requirement: 1 credit Core Math and 1 credit Math Related Course or STEM Related Course]**

## Summer School for English Learners

This 120-hour intensive course is designed for English Learners enrolled in English Foundations, English Development, English Exploration, or English Literature who want to accelerate their acquisition of English during the summer months. **Students will receive either English credit or Pathway Related Course credit upon successful completion of the course.**

### MUSIC

#### Beginning Choir

Grades 9, 10, 11, 12

1 Credit

Choir is a mixed group of students who are interested but inexperienced in singing, both in performing groups and as a soloist. It is designed for students with a desire to learn the fundamentals of voice production and to improve their natural voice abilities. There should be a demonstrated desire to learn basic music reading. Through the use of voice drills and the singing of solo and ensemble repertoire, students develop an awareness of the voice as an expressive and resonant instrument. Through this group, students can attain the necessary experience for singing in other auditioned choral ensembles. Areas of study include: basic music theory, music reading skills, voice production, and musical interpretation. A variety of music literature is studied, both sacred and secular. Choir members are required to participate in all scheduled school and community performances. **[Graduation Requirement: Fine Arts]**

#### Advanced Choir

Grades 10, 11, 12

1 Credit

Advanced choir is group of experienced singers who have participated in other performing organizations including choir, band or orchestra. Areas of study are: basic music theory, voice production, solo and ensemble singing, and artistic interpretation. A variety of music literature is studied, including sacred and secular compositions from the master works to contemporary. Advanced choir members are required to participate in all activities that include: school assemblies, public concerts, contests, CMEA events, and exchange concerts. **Prerequisite: Choir and Audition [Graduation Requirement: Fine Arts]**

#### Honors Chamber Singers

Grades 10, 11, 12

1 Credit

This course is a serious study of artistic music for the select chorus musician. Music will be selected by the instructor for its aesthetic content, historical importance and variety of style. Whenever possible, the pieces will be performed in original content with regard to language and accompaniment. This group is a performance-oriented organization and the students are required to participate in all school, community, and county performances. **Prerequisite: Audition [Graduation Requirement: Fine Arts]**

#### Choral Ensemble

Grades 10, 11, 12

1 Credit

Special Ensemble will be comprised of experienced singers who have previously performed in music ensembles such as choir, advanced choir, chamber singers, band or orchestra. Students will be selected through an audition-based criterion. This is a performance-based organization; therefore, students are required to participate in all designated school, community and county performances, as well as after school rehearsals. **Prerequisite: Audition [Graduation Requirement: Fine Arts]**

#### Music Theory

Grades 9, 10, 11, 12

1 Credit

This course is designed for students who already possess the rudimentary skills necessary for reading and performing music, and who wish to deepen their understanding of notation, meter, and harmonic elements. An emphasis will be placed on ear training, dictation, scales, and listening examples from the Medieval Period until today. This course will prepare students for furthering their studies in AP Music Theory **[Graduation Requirement: Fine Arts]**

#### AP Music Theory

Grades 10, 11, 12

1 Credit

This course is designed for students who have an interest in learning the inner workings of music. Emphasis will be placed on four-part writing with standard voice-leading techniques. Students will expand their harmonic vocabulary through composition, ear training, and analysis. This high-level, fast-paced course will prepare students for success on the AP Music Theory exam, and is strongly recommended for students considering a major or minor in music. **Prerequisite: NHS Music Theory OR Instructor Approval [Graduation Requirement: Fine Arts]**

<b>Prelude Orchestra</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is a continuation of middle school orchestra program at a more advanced level. The orchestra plays at special programs, in other schools in the system, and at public concerts. Emphasis is placed upon good rhythm, intonation, tone, and technique. String quartets and small ensembles are offered. Students will be required to attend weekly pull-out lessons. Prerequisite: Orchestra in middle school or audition. <b>Prerequisite: Orchestra in middle school or audition [Graduation Requirement: Fine Arts]</b></p>		
<b>Pphilharmonic Orchestra</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is a continuation of course 8871 (Prelude) at a more advanced level. The Philharmonic Orchestra plays at special programs, at other schools in the system, and at public concerts. Emphasis is placed upon refining tone quality, artistic interpretation of music, and application of music theory and music history to informed performance practice. String quartets and small ensembles are offered. Students are encouraged (but not required) to audition for music festivals (CMEA, NEMFA, etc.). Students will be required to attend weekly pull-out lessons. <b>Prerequisites: Completion of 8871 Prelude Orchestra and audition. [Graduation Requirement: Fine Arts]</b></p>		
<b>Honors Principal Orchestra</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is a continuation of 8871 (Prelude) at a more advanced level. The Principal Orchestra plays at special programs, at other schools in the system, and at public concerts. Emphasis is placed upon elevating all elements of performance practice to the highest level in order to create a truly artistic interpretation. String quartets and small ensembles are offered. Students in Principal Orchestra are expected to participate in the Norwalk All-City Orchestra and are encouraged (but not required) to audition for music festivals (CMEA, NEMFA, etc.). Students will be required to attend weekly pull-out lessons. <b>Prerequisites: Completion of 8871 Prelude Orchestra and audition. [Graduation Requirement: Fine Arts]</b></p>		
<b>Symphonic Band</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>Symphonic Band is the initial band instrumental course. This course will survey the basic idiomatic concepts of marching band, theatrical band, harmony and theory, classical concert band, contemporary concert band, and parade band. Within the confines of the course tone production, embouchure development, intonation, rhythmic reading and accuracy and musical expression will be stressed. Public appearances are required in the venues of marching band, symphonic band, and combined bands.</p> <p>All participants are required to rehearse the two weeks prior to the commencement of school (band camp) for the purpose of advanced preparation in curricular area of marching band. Out of school practice for marching band occurs in September through November. Students will be required to attend weekly pull-out lessons. <b>Prerequisite: Participation in middle school band or an audition. [Graduation Requirement: Fine Arts]</b></p>		
<b>Jazz Ensemble</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
<p>Students will build upon their knowledge from their participation in pre-required courses and through the study of jazz, rock, gospel, blues and fusion idioms. Emphasis will be placed upon the performance and interpretation of various jazz styles, rhythms, harmony and theory, and improvisation. Public performances are required. <b>Prerequisite: Concurrent enrollment in Symphonic Band, Wind Ensemble, or Wind Symphony and an Audition. [Graduation Requirement: Fine Arts]</b></p>		
<b>Wind Ensemble</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>Students will have an in-depth study of marching band, theatrical band, harmony and theory, classical concert band, contemporary concert band, and parade band. Special emphasis will be placed on advanced knowledge of timbre, intonation, rhythmic reading, musical expression, sight-reading, musical interpretation, and idiomatic styles. Public appearances are required in venues of marching band, wind ensemble, and combined bands.</p> <p>All participants are required to rehearse the two weeks prior to the commencement of school (band camp) for the purpose of advanced preparation in curricular area of marching band. Out of school practice for marching band occurs in September through November. Students will be required to attend weekly pull-out lessons. <b>Prerequisite: Participation in Symphonic Band and an Audition. [Graduation Requirement: Fine Arts]</b></p>		

<b>Honors Wind Symphony</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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Wind Symphony is the premiere performing organization of the band instrumental department. Instrumentation is based on one person per part except doubling in clarinet, flute, and percussion. Admission into the ensemble requires previous successful participation in Symphonic Band or Wind Ensemble and an audition.

Students will have an intensive study of marching band, theatrical band, harmony and theory, classical concert band, contemporary concert band, solo repertoire, individualized regional and state adjudication, small ensemble performances, and parade band. Knowledge of timbre, intonation, rhythmic reading, musical expression, sight-reading, musical interpretation, and stylistic understanding of idiomatic styles will be coupled with an analysis utilizing nationally accept rubrics. Public appearances are required in the venues of marching band, wind symphony, combined bands, small ensembles, and soloist.

All participants are required to rehearse two weeks prior to the commencement of school (band camp) for the purpose of advanced participation in the curricular area of marching band. Out of school practice for marching band occurs in September through November. Students will be required to attend weekly pull-out lessons. **Prerequisite: Participation in Symphonic Band/Wind Ensemble and an Audition. [Graduation Requirement: Fine Arts]**

<b>Color Guard</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This is an intensive outdoor study of body, dance, staging, drill, saber, rifle, and flag styles. These seven styles will be assimilated into a singular performance idiom. Exploration, analysis, demonstration, and evaluation of contemporary performances styles will be examined utilizing nationally accepted rubrics. Public appearances are required in the venue of marching band.

All participants are required to rehearse the two weeks prior to the commencement of school (band camp) for the purpose of advanced preparation in the curricular area of marching band. Out of school practice with the marching band occurs in **September through November. Prerequisite: Membership in the marching band and an Audition. [Graduation Requirement: Fine Arts]**

<b>Winter Guard</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This is an intensive indoor study of body, dance, staging, drill, saber, rifle, and flag styles to prerecorded music. These seven styles will be assimilated into a singular performance idiom. This performance idiom is referred to as winter guard. Exploration, analysis, demonstration, and evaluation of contemporary performances styles will be examined utilizing nationally accepted rubrics by Winter Guard International and Musical Arts Conference. Public appearances are required in the venue of winter guard. Out of school practices and performance occur in **January through April. Prerequisite: Membership in the marching band and an Audition. [Graduation Requirement: Fine Arts]**

<b>Winter Percussion Ensemble</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This is an intensive study of percussion through the use of performance, instruction and evaluation. The students will be exposed to a variety of musical instruments, including but not limited to, traditional marching percussion, concert percussion, pitched and non-pitched instruments. A broad range of musical styles will be explored, including but not limited to, classical, contemporary, rudimental and theatrical. Assessments will be given based on the nationally accepted rubrics from Winter Guard International and locally through the Musical Arts Conference. Public performances are required as part of the course. **Out of school rehearsals and performances will occur from December through May. Prerequisite: Membership in the marching and concert band program or by audition to the director of bands. [Graduation Requirement: Fine Arts]**

<b>Theatre Studies 1</b>	<b>Grades 9, 10, 11</b>	<b>1 Credit</b>
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In this course students will be introduced to theatre vocabulary, basic acting technique, and theatre etiquette. Contributions of the playwright, actor, director, designer and producer are examined through individual and group projects and attendance and participation in theatrical performances. This course will progress through a series of introductory modules beginning with Origins of the Theatre. Students will begin with Greek, Roman and Medieval theatre and engage in oral readings and discussions as well as creative dramatic activities that help them demonstrate their understanding of plays and dramatic structure. Students will write and revise scripts based on personal experience and heritage, imagination, literature and history as they explore the foundations of playwriting. Students will apply acting and analytical skills, create characters, memorize lines and work in an ensemble on a play that is publicly presented. **[Graduation Requirement: Fine Arts]**

<b>Theatre Studies 2</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>Students will discover the history of Western theater, exploring the time period from antiquity to the Renaissance. Included will be an examination of the Italian and English Renaissance. The course includes a study of plays, historical documents, contemporary writing and a pictorial overview of theater architecture, costumes and scenic designs. Both the artistic and cultural viewpoints are examined. Students will study the historical background of the Elizabethan Era with a focus on William Shakespeare. Students will learn and experience the First Folio acting technique and how to apply it to one of Shakespeare's plays. Students will read and analyze the work from a historical perspective in order to develop a context for understanding. Students will produce a Shakespearean class production. Rehearsals are held during class time with a focus on voice and articulation, scene study, and scene direction. Students apply acting and analytical skills, create characters, memorize lines, and work in an ensemble to produce a play for public presentation.</p> <p><b>Prerequisite: Theatre Studies 1 [Graduation Requirement: Fine Arts]</b></p>		

<b>Honors Musical Theatre Performance</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
<p>This course is designed to immerse students into the study of musical performance including voice for the stage, which will be studied and practiced. Musical instruction and interpretation are the focus of the course. Focus will also include performance and preparation for auditions including the development of an audition portfolio and resume. Students will study musical theatre history, specifically focusing on iconic shows, scenes and performers that are representative of the developing style. Students learn by participating in a theatrical musical production, as cast and production staff. The student will be responsible for the study and style of musical theatre in greater depth through research and presentation at evening shows throughout the year. <b>Prerequisite: Audition [Graduation Requirement: Fine Arts]</b></p>		

**PHYSICAL EDUCATION AND WELLNESS**

<b>Physical Education</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
<b>Physical Education</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>

Physical Education is a comprehensive program that teaches students the skills and concepts necessary to lead a healthy lifestyle. Adaptive PE will be provided in accordance with the student's Individualized Educational Plan. Credit earned in physical education counts toward honor roll, graduation, and rank-in-class. *Students must pass 1 credit of physical education and wellness to graduate, which includes the state required physical fitness test.* **[Graduation Requirement: Physical Education and Wellness]**

The program is designed to develop physically educated students who:

- Demonstrate competency in motor skills and movement patterns needed to perform a variety of physical activities
- Demonstrate understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities
- Participate in regular physical activity
- Achieve and maintain a health-enhancing level of physical fitness
- Exhibit responsible personal and social behavior that respects self and others in physical activity settings
- Value physical activities for health, enjoyment, challenge, self-expression and/or social interaction

<b>Aquatic Fundamentals (Swimming)</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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Whether you are only in, on, or around the water in the summer, you live near the beach or have a pool, you want to swim for exercise or pleasure, already know the basics or are beginning, this semester course is for all grades and abilities. Designed for all levels, classes allow swimmers to develop good habits in, on, and near water, become comfortable in the water, learn and refine new strokes, and become stronger, safer swimmers. **[Graduation Requirement: Physical Education and Wellness]**

<b>Lifeguarding</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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The American Red Cross lifeguarding classes are designed with your learning style in mind. Students must be at least 16 years old to enroll. The American Red Cross Lifeguard Manual contains skills sheets and references to help you understand the importance of water safety and arm you with all of the knowledge necessary to help save lives and avoid injury. At the culmination of the course, students will take the lifeguarding test for the opportunity to be a certified lifeguard. **[Graduation Requirement: Physical Education and Wellness]**

<b>Water Safety Instructor (WSI)</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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Earn your certification to teach American Red Cross swimming and water safety, and gain the skills needed to teach courses and make presentations to swimmers of every age and ability. This course trains instructor candidates to teach all of the courses presented in the Swimming and Water Safety program to all age groups; Learn-to-Swim Levels 4-6 and Adult Swim. At the culmination of the course, students will take the WSI test for the opportunity to be a certified water safety instructor. **[Graduation Requirement: Physical Education and Wellness]**

<b>Functional Fitness</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course will focus on exercises and programs which allow students to perform the activities of daily life more easily and without injuries. The foundation of the course is PLT4M, which utilizes a variety of research-based fitness and performance programs, managed through an online platform, which will allow students to capture their results and measure their progress **[Graduation Requirement: Physical Education and Wellness]**

<b>Leadership Development</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course will equip students with the leadership and interpersonal skills necessary for them to guide effectively their classmates and peers to reach their personal potential. The curriculum will provide students with the skills to increase the positive impact they can have throughout their school and for a lifetime of successful living. **[Graduation Requirement: Pathway Related Course]**

## SCIENCE

<b>Biology</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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Emphasis of study will be placed on the biochemical, physiological, morphological, ecological, bacteriological, embryonic, nutritional, pathological and biographical natures of life. Upon completion of this course a student will have a knowledge of the principles on which all life depends, and an awareness of the interdependency of organisms in the biological world with reference to the balance of nature and conservation. **[Graduation Requirement: Biology/Life Science]**

<b>Honors Biology with EIPS</b>	<b>Grades 9</b>	<b>1 Credit</b>
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Honors Biology will cover topics similar to those covered in the college prep biology class: the principles and inter-relationships of living forms with reference to the balance of nature and a realistic concern for the environment. These topics will be covered in greater depth, placing more emphasis on the self-reliance of the student. Biochemistry will be emphasized, and students will be expected to write science papers and work on science projects. Strongly Recommended: grades of "A" 7<sup>th</sup> and 8<sup>th</sup> grade science and 8<sup>th</sup> grade science teacher recommendation (based on student's interest and motivation); students taking and obtaining a grade of "B" or better in Algebra in 8<sup>th</sup> grade. **[Graduation Requirement: Biology/Life Science (Lab)]**

<b>Advanced Placement Biology (Lab Science)</b>	<b>Grades 11, 12</b>	<b>1.5 Credit</b>
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This course covers principles and concepts in cellular biology, biochemistry, anatomy, physiology, heredity and evolution. Students are expected to contribute to class through seminars, demonstrations of significant laboratory skills, preparation of scientific papers and readings of science journals. Completion of a research project is required. Students are expected to take the Advanced Placement exam. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining summer assignments and submitting the completed work on time. **Prerequisite: Biology and Chemistry [Graduation Requirement: STEM Related Course; Science Related Course]**

<b>Chemistry (Lab Science)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This course covers the following topics: properties of materials, the transformations which matter undergoes, the conditions affecting those transformations and the nature and amount of energy released or absorbed in these changes, the uses of materials and creation of new substances. Emphasis is placed upon mathematical application to chemistry and an extensive degree of laboratory work. Recommended C or better in the prerequisite courses. **Prerequisite: Intensive Algebra 1 or Algebra 1 and Biology [Graduation Requirement: Chemistry/Physical Science (Lab)]**

<b>Honors Chemistry with EIPS</b>	<b>Grades 10, 11</b>	<b>1 Credit</b>
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This course is for students in the accelerated science sequence and provides an in-depth concentrated study of topics studied in high school chemistry. The work is rigorous and challenging and laboratory activities constitute a major part of this course's curriculum. **Prerequisite: Biology; Co-requisite: Algebra 2. [Graduation Requirement: Chemistry/Physical Science (Lab)]**

<b>Everyday Chemistry</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
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This course is a project-based, consumer chemistry course that will examine the chemistry behind everyday life: movie special effects, toys, foods, art, and forensic chemistry. This course takes a hands-on approach with each unit beginning with a challenge task. Students will perform experiments and investigations to meet their unit challenge. This semester related course is not a substitute for a full year lab Chemistry class. **[Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Earth and Integrated Physical Science</b>	<b>Grade 10, 11</b>	<b>1 Credit</b>
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Emphasis of study will be placed on students' understanding of the interconnections and feedbacks among the geosphere, hydrosphere, atmosphere, and anthroposphere as well as the physical aspects of motion, energy, forces, and waves and technology. Students will study climate systems and climate change, the human impacts on Earth systems and issues of human sustainability, current global and regional data sets, the systems and transfer of energy, laws of force and motion, and waves and technological applications. Students will make projections for the future, analyze space systems and research, and use engineering design concepts to evaluate future societal choices in the earth, space, and physical sciences. Upon completion of this course a student will have a knowledge of principles including but not limited to: energy futures, resource management, space exploration and structures, land use, environmental impacts, pollution regulation, and applications of motion, waves, and energy. **Prerequisite: Biology and Chemistry. [Graduation Requirement: Chemistry/Physical Science; Science Related Course; STEM Related Course]**

<b>Physics</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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Physics is the study of matter and energy including an introduction to the mechanics of solids, liquids and gases, wave motion, sound, heat, magnetism, electricity, light and other concepts in modern physics. The fundamental principles and concepts of each topic are studied and applied through problem-solving and laboratory experimentation. Emphasis is placed on experience integrating physics and mathematics, as well as physics for engineering. **Prerequisites: Biology and Algebra 2 or Geometry [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Honors Physics</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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Honors Physics is an in-depth study of physics. Demands will be placed on the student to work independently in the classroom as well as the laboratory. The student will be expected to complete both long and short term outside projects and research as well as to master the use of sophisticated equipment including computers. The honors course will emphasize quantitative physics. Problems involving several physical relationships will be stressed as well as derivation of physical relationships. **Prerequisites: Biology and Algebra 2 or Geometry; [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Environmental Science</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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An introduction to the biological and non-biological factors of the environment and their effects on environments and inter-environmental relationships, including an investigation into methods of control and management of human-populated environments. Environmental outdoor laboratory sessions in the Norwalk area are part of the course. **Prerequisite: Biology [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Genetics</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course is designed to educate students about molecular basis and application of Genetics. Topics include, but are not limited to mitosis and meiosis, birth defects, Mendelian genetics, patterns of inheritance, sexual development and inheritance, pedigrees, structure and function of nucleic acids, transcription and translation, DNA mutation and repair, genetic disorders, karyotypes, allele frequencies, genetic engineering, and biotechnology. **Prerequisite: Biology [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Forensics</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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Forensics is the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system. Discussion in this course will be limited to only those areas of chemistry, biology, physics, and geology that are useful for determining the value of crime scene and related evidence. Work in this course will center around the science and technology of evidence collection. This course will be a comprehensive review of biology, chemistry, physics and other science topics. Topics covered will include fingerprinting, body fluids, DNA typing, fire tread analysis, hair and fiber analysis, metallurgy, polygraph testing, ethics, and legal issues. **Prerequisite: Biology and Chemistry [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Principles of Experimental Chemistry</b>	<b>Grades 11, 12</b>	<b>.5 Credit</b>
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This class is for students interested in advanced study of chemical sciences by introducing them to principles and techniques of chemistry research through class work and experimental work. This experimental chemistry class is ideal for students interested in an authentic research and laboratory experience to prepare them for college. It will focus on the application of current instrumental methods of analysis to chemical, biochemical, and environmental problems. Students in this class will acquire an understanding of how instrumentation used in a laboratory works and the type of information they can contribute to a chemical analysis. Principles of experimental design, data acquisition, analysis and interpretation, interpretation of experimental results will be emphasized. **Prerequisite: Chemistry [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Honors Anatomy and Physiology</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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Human Anatomy and Physiology includes the study of all structures within the major organ systems of the human body. The morphology of these systems will be directly correlated with how major structures are able to function. This course is designed to examine a healthy state of the human body in comparison with the abnormalities and their physiological effects that result from disease. A comprehensive review of biology, chemistry, and other biological sciences will be integrated throughout this full year course. Dissections will serve as a significant form of assessment allowing practical application of the knowledge attained throughout the semester. **Prerequisite: Biology and Chemistry [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Public Health and Epidemiology</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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Public Health and Epidemiology investigates introductory level epidemiology principles, concepts and procedures useful in the surveillance and investigation of health-related events. Some topics will include disease control and prevention; epidemiology; outbreak investigations; preparedness and response; and surveillance. Basic microbiology and vaccinations, universal precautions, and biostatistics concepts will also be integrated. **Prerequisite: Biology and Algebra 1; Co-requisite: Chemistry [Graduation Requirement: Science Related Course; STEM Related Course]**

<b>Honors Biomedical Sciences (PLTW)</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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This course full-year serves to provide foundational knowledge and skills in fields such as biology, anatomy & physiology, genetics, microbiology, and epidemiology as well as engage students in how this content can be applied to real-world situations, cases, and problems. Students will work in both individual and collaborative team activities, projects, and problems by means of the same tools and equipment used in hospitals and labs as they engage in relevant hands-on work. In addition, students will explore how connections to other disciplines such as computer science and engineering shape the future of medicine and practice collaboration techniques that will help them connect with professionals across any field. **Co-requisite: Biology/ Life Science [Graduation Requirement] Recommendation: Algebra 1**

<b>Honors Human Body Systems (PLTW)</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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In this course students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal mannequin, work through interesting real-world cases, and often play the role of biomedical professionals to solve medical mysteries. **Prerequisite: Principles of Biomedical Sciences Co-requisite: Chemistry [Graduation Requirement]**



<b>Honors Medical Interventions (PLTW)</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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Medical Interventions allows students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. The course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Through these scenarios, students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Each family case scenario will introduce multiple types of interventions, reinforce concepts learned in the previous two courses, and present new content. Interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions will be showcased across the generations of the family and will provide a look at the past, present, and future of biomedical science. **Prerequisite: Human Body Systems; Biology and Chemistry [Graduation Requirement]** **Co-recommendation: Physics**

<b>Honors Biomedical Innovations (PLTW)</b>	<b>Grades 12</b>	<b>1 Credit</b>
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In this capstone course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students will be asked to apply what they have learned in the previous three courses to solve unique problems in science, medicine, and healthcare. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an audience that may include representatives from the local business and healthcare community. **Prerequisite: Medical Interventions; Biology and Chemistry [Graduation Requirement]**

<b>Introduction to Biology – NCC BIO 105</b>	<b>1 Credit</b>
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A course for non-science majors. Representative topics include the chemistry of life, genetics, structure and function of cells and tissues, and selected plant and animal systems. Labs may involve dissection of plant and animal specimens, microscope work, and elementary biochemistry experiments. Three hours of class work, three hours of lab per week. **Prerequisites: Eligibility for ENG 101 and eligibility for MAT 136 [Graduation Requirement: Science; STEM Related Course]**

<b>General Biology I – NCC BIO 121</b>	<b>1 Credit</b>
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This course offers a comprehensive study of fundamental biological concepts. The nature of scientific inquiry, water and carbon chemistry, cell structure and function, metabolism, photosynthesis, genetics and evolution are studied. Lab may include dissection of animal species. **Prerequisites: Eligibility for ENG 101, high school biology recommended [Graduation Requirement: Science; STEM Related Course]**

<b>Survey of Science – NCC SCI 114</b>	<b>1 Credit</b>
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This course fulfills the IDS requirement. This course explores basic concepts of physics, chemistry and biology, focusing on the interrelatedness of these disciplines through lecture demonstrations, computer simulations, group collaborations and may include field trips. The topics covered include chemistry (atomic structure, elements, periodic table and simple reactions), biology (characteristics of living things, cell cycle, DNA and genetics, ecology and the environment) and physics (energy, heat, temperature and light). The laboratory portion of the course is tied closely to the lecture and will use analytical techniques to explore questions from the perspective of chemists, biologists and physicists. **Prerequisite: ENG 101, eligibility for MAT 136 or the equivalent. [Graduation Requirement: Science; STEM Related Course]**

<b>SOCIAL STUDIES</b>
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<b>Global Studies</b>	<b>Grade 9</b>	<b>1 Credit</b>
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This course serves as an introduction to studying history as a discipline. Students will explore our evolving human identity, with an emphasis on global interconnections and incorporating historical narratives conveyed through multiple perspectives. The focus will be on key issues such as religion, gender, class, sexuality, and ethnic identity and the impact these issues have on shaping global perspectives. The course will take a comparative approach of dominant racial and ethnic groups in the different continental

perspectives. In addition, this course supports student development of analytical and thinking skills. They are challenged to wonder and develop deep questions related to culture, history and their place in it. A goal of the course is to engage students in developing historical thinking and a personal perspective on the study of history. **[Graduation Requirement: Social Studies Related Course]**

<b>Honors Global Studies</b>	<b>Grade 9</b>	<b>1 Credit</b>
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This course serves as an introduction to studying history as a discipline. Students will explore our evolving human identity, with an emphasis on global interconnections and incorporating historical narratives conveyed through multiple perspectives. The focus will be on key issues such as religion, gender, class, sexuality, and ethnic identity and the impact these issues have on shaping global perspectives. The course will take a comparative approach of dominant racial and ethnic groups in the different continental perspectives. In addition, this course supports student development of analytical and thinking skills. They are challenged to wonder and develop deep questions related to culture, history and their place in it. A goal of the course is to engage students in developing historical thinking and a personal perspective on the study of history. Students are expected to conduct independent research, engage in high-level close readings, and use their learning to take informed action. **[Graduation Requirement: Social Studies Related Course]**

<b>US History in Global Context</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This course challenges students to approach US History and its global impact through an inquiry-based framework. Students will examine how issues and circumstances in the 21<sup>st</sup> century are the result of historic global movements, and how decisions made within the US have affected people, nations, and various movements around the world over time. This course will take a theme-based approach so as to best equip students to draw past-present connections, analyze progress and decline, and consider change and continuity. We will emphasize the need to incorporate multiple perspectives to build empathy and better understand the people and societies around us. This course includes several research experiences. **[Graduation Requirement: Social Studies Related Course]**

<b>Honors US History in Global Context</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This course challenges students to approach US History and its global impact through an inquiry-based framework. Students will examine how issues and circumstances in the 21<sup>st</sup> century are the result of historic global movements, and how decisions made within the US have affected people, nations, and various movements around the world over time. This course will take a theme-based approach so as to best equip students to draw past-present connections, analyze progress and decline, and consider change and continuity. We will emphasize the need to incorporate multiple perspectives to build empathy and better understand the people and societies around us. As honors students, students will complete extensive research projects and be expected to hold well-informed discussions. **[Graduation Requirement: Social Studies Related Course]**

<b>Civics</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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The course surveys the origins and institutions of the US Government. Emphasis is placed on the political organization and structure of our national, state and local governments as well as their development. The Constitution and its interpretation will be studied through the use of Supreme Court decisions. Analysis and interpretation of outside readings will be required. Students are encouraged to actively participate in the democratic process and will be given an opportunity to participate in the governmental process through fieldwork projects. **[Graduation Requirement: Civics]**

<b>Honors Civics</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course studies the origin, institutions, and influence of the US government on its citizens and the world at large. The course lays the groundwork of understanding the functions and purpose of federal, state and local governments so that students may more easily find themselves as active citizens. Topics of study will include both concrete knowledge such as familiarity of the Constitution and more abstract discussions about the government's role in society and the meaning of justice. Analysis and interpretation of historical concepts as well present-day political issues will help guide students in the course. Students are encouraged to actively participate in the democratic process and will be given an opportunity to participate in the governmental process through fieldwork projects. **[Graduation Requirement: Civics]**

<b>American Studies and Pop Culture</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This course is for students who are interested in studying American History using popular culture. Students will be able to examine cultural products such as film, television, music, art, advertisement and study its relevance and connection to the society which

produced them. This class requires students to analyze critique historical events and values that influenced popular culture. **[Graduation Requirement: Social Studies Related Course]**

**African American/Black and Puerto Rican/Latino Studies**

**Grades 10, 11, 12**

**1 Credit**

The course is an opportunity for students to explore accomplishments, struggles, intersections, perspectives, and collaborations of African American/Black and Puerto Rican/Latino people in the U.S. Students will examine how historical movements, legislation, and wars affected the citizenship rights of these groups and how they, both separately and together, worked to build U.S. cultural and economic wealth and create more just societies in local, national, and international contexts. Coursework will provide students with tools to identify historic and contemporary tensions around race and difference; map economic and racial disparities over time; strengthen their own identity development; and address bias in their communities. **[Graduation Requirement: Pathway Related Course]**

**Global Justice and Human Rights**

**Grades 10, 11, 12**

**.5 Credit**

This course introduces students to the concept and practice of preserving and promoting human rights across the globe. Students ask themselves what moral and ethic rules guide all of humanity, regardless of borders, languages, values and politics. The course covers genocides and oppression, with action-oriented work in which students can take meaningful and tangible steps to better advocate for justice and peace. Class discussions and inquiry-based thinking will ground the course in discussing both historic roots to issues and modern implications of human rights crises across the globe. **[Graduation Requirement: Pathway Related Course]**

**Psychology 1**

**Grades 10, 11, 12**

**.5 Credit**

This course is an introductory survey of the field of human behavior. Topics include sensory awareness, perception, self-esteem, dreams, mediation, motivation, and the unconscious. Students use readings, experiments, role-plays, small and large group discussion, projects to explore these areas of human behavior, and the psychological principles that influence workplace behavior. **[Graduation Requirement: Social Studies Related Course]**

**Advanced Placement Psychology**

**Grades 10, 11, 12**

**1 Credit**

The purpose of the Advanced Placement Psychology course is to introduce students to the systematic and scientific study of behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students are expected to take the Advanced Placement exam. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining summer assignments and submitting the completed work on time. **[Graduation Requirement: Social Studies Related Course]**

**Philosophy and The Modern World**

**Grades 10, 11, 12**

**.5 Credit**

This course will focus on philosophical concepts and issues and how they apply to our modern day. Topics of study will include the modernity, progress and reality and how they apply to issues surrounding social justice, technology and society. Students will pose meaningful questions and construct arguments while inspecting and scrutinizing their deeply held beliefs to formulate new ideas. Coursework will provide students to critically think and develop higher order thinking skills. Study will include works from thinkers such as Franz Fanon, Stuart Hall and Ruha Benjamin. **[Graduation Requirement: Pathway Related Course]**

**Street Law**

**Grades 9, 10, 11, 12**

**.5 Credit**

This course is designed to examine the United States judicial branch and court cases relevant to teenagers. Street Law will not only advance student understanding of justice, but also empower students with the skills, legal, and civic knowledge to bring about positive change for themselves and the community. **[Graduation Requirement: Pathway Related Course]**

**Advanced Placement US Government and Politics**

**Grades 10, 11, 12**

**1 Credit**

This course explores the political theory and everyday practice that direct the daily operation of our government and shape our public policies. 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. Students are expected to take the Advanced Placement exam. AP courses require summer assignments that are due on the first day

of school. The student is responsible for obtaining summer assignments and submitting the completed work on time. This course fulfills the Civics graduation requirement. **[Graduation Requirement: Civics; Social Studies Related Course]**

<b>United States History I – NCC HIS 201</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This survey of American history studies the diverse roots of American politics, society, culture, and the economy. The Colonial period, the American Revolution and the formation of the republic are discussed. The evolution of opposing socioeconomic systems, sectionalism and sectional conflict, the Civil War and Reconstruction are also examined. **Prerequisite: Eligibility for ENG 101**  
**[Graduation Requirement: US History]**

<b>United States History II – NCC HIS 202</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This course examines the social, economic and political forces that have contributed to the emergence of modern America and centers on the post-Civil War period, the settlement of the West, the industrial revolution, immigration, urbanization, imperialism, the U.S. as a world power, the New Deal and contemporary America. **Prerequisite: Eligibility for ENG 101** **[Graduation Requirement: US History]**

<b>SS2308GAC Social Justice</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This semester course is designed to increase students' awareness, knowledge, and understanding of issues related to diversity, human rights, social and economic justice. Diversity is understood as the intersectionality of multiple factors including age, class, color, culture, disability, ethnicity, gender, gender identity and expression, immigration status, political ideology, race, religion, sex, and sexual orientation. In this course, students will explore social justice movements like Women's Rights, Civil Rights, and LGBTQ+ etc. **[Graduation Requirement: Social Studies Related Course]**

<b>VISUAL ARTS</b>
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<b>Art 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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This class is the department foundation full-year class designed to introduce students to the principles and elements of art. This course teaches students a wide variety of materials and techniques for creating art. Drawing skills, essential to the creative process, are stressed as well as painting, printmaking, and sculpture. Students are introduced to the computer lab and the Adobe Creative Suite. Students build a large art vocabulary while learning how to critique their own and others' artwork. Students are required to keep a sketchbook for homework and design ideas. **[Graduation Requirement: Fine Arts]**

<b>Art 2</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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Students taking Art II create advanced drawing, painting and collage projects while learning advanced applications of the principles and elements of art and design. Students look at, write about, discuss and create artworks influenced by master artists to guide their artistic choices as well as deepen their visual literacy. Advanced Middle School art students can by-pass Art I and register for Art II with a Middle School art teacher recommendation. 9<sup>th</sup> Graders are expected to register for a second, Part I course, the other Semester. Homework is required. **Prerequisite: Art 1 or Middle School Art Teacher Recommendation** **[Graduation Requirement: Fine Arts]**

<b>Photographic Alternative Processes</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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In this course students will apply the principles and elements of art and photography to the alternative processes of Cyanotype Van Dyke, Anthotype, Chemogram and Print Transfers. Students will learn the History of Photography and how these alternative processes and photographic genres were utilized as well as integrate within contemporary photographic practice. Students will photograph with Smart phone cameras and budget point and shoot cameras to incorporate digital photo techniques and technologies, such as digitally enlarged negatives, into their artwork. **Prerequisite: Art 1, Art 2 or Middle School Art Teacher Recommendation** **[Graduation Requirement: Fine Arts]**

**Design 1****Grades 9, 10, 11, 12 .5 Credit**

In this class, students create products for a “client or company” by learning and utilizing fine art concepts and skills in; product/ industrial, marketing/advertising, interior, textile, environmental and set design. This class is open to freshmen taking Art 2 the other semester. Students are required to keep a sketchbook for homework and design plans. **Prerequisite: Art 1, Art 2 or Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

**Design 2****Grades 10, 11, 12 .5 Credit**

This course teaches students advanced fine art concepts in; product/ industrial, marketing /advertising, interior, textile, environmental and set design. Students will work with various methods and materials to create new products for the marketplace. Through theory, practice and reflection, students will develop original approaches to solve multiple rigorous design challenges. A sketchbook for design plans and homework is required. **Prerequisite: Design 1 [Graduation Requirement: Fine Arts]**

**Drawing 1****Grades 9, 10, 11, 12 .5 Credit**

This course is designed for all students who would like the opportunity to increase their drawing skills in an intense half-year course. Students explore a wide variety of drawing techniques, materials, subjects and styles. Drawing will be based on observation and imagination that will lead the student to self-discovery and awareness of his/her environment. A sketchbook/journal is required to plan and think through composition ideas. **Prerequisite: Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

**Drawing 2****Grades 10, 11, 12 .5 Credit**

This course challenges the technically skilled drawing student. Students focus on portfolio pieces concentrating on portraiture, the human figure, still life, and landscape drawings. Sketchbooks are required to keep a record of progress and ideas for future drawing compositions. **Prerequisite: Drawing 1 [Graduation Requirement: Fine Arts]**

**Painting 1****Grades 9, 10, 11, 12 .5 Credit**

For the student who loves to paint, this class is designed for the student who wishes to explore and improve in all forms of painting media, techniques, and subjects. Media to include: Watercolor, Gouache, and Acrylics. Art styles will be the focus as students learn the basics of color media. As with other classes, a sketchbook is required, as the student will be using it to render sketches for painting subjects. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

**Painting 2****Grades 10, 11, 12 .5 Credit**

Students who would like to add to their portfolio will be challenged in this advanced painting course. They will be asked to create thematic, meaningful and current paintings; which will expose intent and mastery of media. Opportunities to work independently and to make personal choices for materials and techniques will be given throughout the semester. **Prerequisite: Painting 1 [Graduation Requirement: Fine Arts]**

**Printmaking 1****Grades 9, 10, 11, 12 .5 Credit**

Students in this course will be able to make multiple copies and editions of artwork rendered in a variety of printmaking media, techniques, and subjects. Media include: stencil, monoprint, collagraph, linoleum, woodcut, dry-point etching, and embossed prints as well as found object printmaking. In addition to making prints, student will engage in these media through historical and conceptual topics. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

**Printmaking 2****Grades 10, 11, 12 .5 Credit**

Students in this course will learn advanced printmaking techniques and processes building on previous techniques and media covered course is a 3-dimensional art or sculpture class. Students learn to make artworks in a variety of media including; folded paper/ cardboard, papier-mâché, clay, wood, assemblage, wire, and plaster. Students learn clay/ ceramics hand building techniques. Students in Printmaking 1. Students work in a variety of media including; reduction printmaking, multiple layer stencil, woodcut, embossing and

collage transfer. Students can research independently new methods and materials. This class encourages both collaborative and independent work. **Prerequisite: Printmaking 1 [Graduation Requirement: Fine Arts]**

<b>3D Sculpture</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This will learn to visualize and create artworks from 2D plans in 3D form using a sketchbook for homework and design plans. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

<b>3D Sculpture 2</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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This class offers students advanced clay hand building and wheel thrown pottery techniques. Students problem solve building sculptures using more challenging applications of the principles and elements of art and design. Students create 3D artworks from a variety of methods and materials including; paper, papier-mâché, clay, wire, wood and assemblage. Students must be able to work independently and collaboratively. Students will learn to visualize and create artworks from 2D plans in 3D form using a sketchbook for homework and design plans. **Prerequisite: 3D Media 1, 3D Sculpture 1 [Graduation Requirement: Fine Arts]**

<b>Digital Art I</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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In Digital Art I course students will learn the principles and elements of art as they apply to digital art and design. Students will create projects modeled after real-world industry assignments, developed in Adobe Photoshop and Illustrator. Students will present a final project at the conclusion of the course. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

<b>Digital Art II</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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In Digital Art II course, students will learn advanced principles and elements of art as they apply to digital art and design. Students will create advanced real-world projects modeled after industry assignments developed in Adobe Photoshop and Illustrator. Students will create digital art projects utilizing advanced Adobe tools. Students will create a mock company, logo and website. Students will learn copyright and fair use policies for Internet imagery and digital design. At course end, students will present a final project as an animated graphic advertisement for their company. **Prerequisite: Digital Art I [Graduation Requirement: Fine Arts]**

<b>Clay Sculpture</b>	<b>Grades 10, 11, 12</b>	<b>.5 Credit</b>
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In this class, students will be required to apply skills and clay making techniques learned in 3-D Media 1 including: pinch, coil, slab construction, drape molding, sculpting, and others to create advanced hand-built sculptures. Students will learn to visualize a 3D form from a 2D plan. Students will create plans, measuring and accurately recording their design ideas to explain and build. Students will learn advanced hand building techniques and apply aesthetic criteria to create small- and large-scale additive and subtractive sculptures ranging from portrait busts, creatures, animals, or humans and utilitarian objects to abstract artworks. Students will learn advanced glazing techniques and acrylic vase painting. Finished clay sculptures can be functional and decorative. Homework is required. **Prerequisite: 3D Media 1, 3D Sculpture I [Graduation Requirement: Fine Arts]**

<b>Photography 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This class is an introductory course covering the basics of black and white photography. Students begin with non-camera darkroom imagery, build and use pinhole cameras, and learn how to create images using a film camera. Students learn how to make contact sheets and to enlarge images from negatives. Students learn Digital Photography and Photoshop. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

**Photography 2****Grades 9, 10, 11, 12 .5 Credit**

This class is an extension of Photo 1 that offers students a more in depth look into how to take good quality photographic images. In this course students will learn how to process their own film and learn more advanced darkroom techniques such as using the filter system. Students will be introduced to lighting techniques both natural and manipulative. Students learn advanced Digital Photography and Adobe Suite applications. **Prerequisite: Photography 1 [Graduation Requirement: Fine Arts]**

**Honors Photography 3****Grades 10, 11, 12 .5 Credit**

This course expands on the use of the camera established in Photo 2. Students will explore advanced shooting techniques and the chemical process of film developing. Darkroom instruction will include introduction of filters and burning and dodging techniques. Students learn advanced Digital Photography and Adobe Suite applications. **Prerequisite: Photography 2 [Graduation Requirement: Fine Arts]**

**Honors Photography 4****Grades 10, 11, 12 .5 Credit**

Students learn advanced Digital Photography and Adobe Suite applications. Layers, masking, and color correction among other methodologies will be part of the instruction. In the darkroom processes such as double exposure, the Sabatier effect, and other techniques will be introduced, allowing greater creative expression. **Prerequisite: Photography 3 [Graduation Requirement: Fine Arts]**

**Textile Arts 1****Grades 9, 10, 11, 12 .5 Credit**

This course is designed to teach students textile making, designing and fiber arts. Students will learn a variety of hand and machine sewing techniques as well fiber arts including; knitting, crocheting, weaving, macramé, embroidery, paper craft including silk screening. Students will learn historical and cultural connections to craft based techniques. Students create sketchbooks and are required to submit unit design plans. **Prerequisite: Art 1 or Art 2 or Middle School Art Teacher Recommendation [Graduation Requirement: Fine Arts]**

**Textile Arts 2****Grades 10, 11, 12 .5 Credit**

This course is designed to teach students advanced textile making, designing and fiber arts. Students will learn a variety of advanced hand and machine sewing techniques as well as advanced fiber arts including; knitting, crocheting, weaving, macramé, embroidery and paper craft. Students will learn historical and cultural connections to craft based techniques. Students create sketchbooks and are required to submit unit design plans. Students will visit a Design studio or place of employment to learn about vocational educational opportunities. Students will create a final project or a Capstone experience. **Prerequisite: Textile Arts 1 [Graduation Requirement: Fine Arts]**

**Art History****Grades 9, 10, 11, 12 .5 Credit**

This half-year survey class is designed for students who wish to study the global history of art from Pre-historic to the present. Students read, write about, and discuss art. Minimal art making is involved. Students learn to distinguish between art-historical arguments that are rooted in historical fact, accepted scholarly interpretation, and informed speculation. This class can be used as a preparation for AP Art History. **[Graduation Requirement: Fine Arts]**

**Modern and Contemporary Art****Grades 9, 10, 11, 12 .5 Credit**

In this class, students will look at, read, talk about, and create a variety of modern and contemporary global art styles including but not limited to: Impressionism, Post-Impressionism, Cubism, Abstract Art, Surrealism, Abstract Expressionism, Pop Art, Photo Realism, Folk Art, Contemporary Crafts, Performance Art and more! Students will learn about the history of art while creating Modern and Contemporary art styles with a variety of art making methods and materials including: drawing, painting, printmaking, sculpture, and crafts. Homework is required. **Prerequisite: Art 1, Art 2 or Middle School Art Teacher Recommendation. [Graduation Requirement: Fine Arts]**

<b>Advanced Placement Art History</b>	<b>Grades 10, 11, 12</b>	<b>1 Credit</b>
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This class is a college level survey class covering Art from Prehistoric time to the present. AP Art History focuses on reading, analysis of, writing, and discussion about art and art history. This course is designed to teach students to analyze art through the lenses of Formalism, historical, religious, cultural, political, gender, and socio-economic contexts. It is also intended to prepare students for the College Board National Art History Exam. Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. **Prerequisite: Required summer work. (Grade 9 with Teacher Approval) [Graduation Requirement: Fine Arts]**

<b>Honors Portfolio</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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This class is designed for Art Students who want to build a superior portfolio, a body of work, for higher educational review. Portfolio students can be preparing for AP Studio Art, taking AP concurrently, or have finished AP Studio Art class. Students are expected to be proficient in 2D Processes. Students create a substantial (20-24 pieces) portfolio of finished artwork. **Prerequisite: Two years of art classes. [Graduation Requirement: Fine Arts]**

<b>Advanced Placement Studio Art</b>	<b>Grades 11, 12</b>	<b>1 Credit</b>
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This class is designed for students pursuing art in their higher-level educational choices. A rigorous course with art school foundation level expectations, AP Studio requires a portfolio review and summer work for acceptance. Students create a concentration of (30) quality works for review and scoring by the College Board. Students with passing exam scores earn college credits. Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. **Prerequisite: Two years of art classes. [Graduation Requirement: Fine Arts]**

<b>Cultural Perspectives in Art</b>	<b>Grades 9, 10, 11, 12</b>	<b>.5 Credit</b>
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This course introduces and examines critical cultural studies and theories of culture particularly related to the Middle East, South Asia, and Africa. This course will enable students to articulate their emerging knowledge of Middle East, South Asian, and African cultures in a theoretically informed language. Students will develop critical thinking and creativity through problem solving and self-assessment. Students will create original artwork based on an appreciation of native artists' techniques and cultural tradition. **[Graduation Requirement: Fine Arts]**

<b>Two-Dimensional Design – NCC ART 121</b>	<b>1 Credit</b>
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This introductory course focuses on the basic elements and principles of design such as line, texture, space, balance, unity and scale. Students are responsible for purchasing supplies. **Prerequisites: Eligibility for ENG 088 or ESL 152 or permission of Art coordinator [Graduation Requirement: Fine Arts]**

<b>Color Theory – NCC ART 109</b>	<b>1 Credit</b>
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This course is an examination of the action and interaction of color and the study of the visual and psychological factors related to color perception. Students are responsible for purchasing supplies. Two hours lecture, three hours studio. **Prerequisites: Eligibility for ENG 101 or permission of Art coordinator. [Graduation Requirement: Fine Arts]**

<b>Graphic Design I: Skills and Principles – NCC GRA 151</b>	<b>1 Credit</b>
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An introductory course focusing on the fundamental nature, skills and principles of graphic design. Students will learn about composition, communication and technology. Classes consist of lectures, demonstrations, applied practice and critiques. Students are responsible for purchasing supplies. **Prerequisite: Eligibility for ENG 101 and MAT 136 or permission of the Graphic Design coordinator [Graduation Requirement: Fine Arts; STEM Related Course; Digital Literacy]**



**Typography – NCC GRA 202****1 Credit**

This introductory course focuses on the history, fundamental theory and use of type. Students will learn typographic anatomy, measurement, identification, specification, composition, and terminology. Traditional and contemporary technology will be used to complete exercises and projects. Students are responsible for purchasing supplies. Two hours lecture, three hours studio. **Prerequisite: ART 111 or permission of the Graphic Design coordinator. [Graduation Requirement: Fine Arts]**

**Graphic Design II: Process and Presentation – NCC GRA 252****1 Credit**

Building upon technical skills covered and theoretical concepts explored in prerequisite courses, this course focuses on the design process, graphic styles and presentation. Emphasis will be on typography, identification marks, layout and color. Classes consist of lectures, demonstrations, applied practice and critiques. **Co-requisite or Prerequisite: GRA 241 and GRA 236 or permission of the Graphic Design coordinator [Graduation Requirement: Fine Arts; STEM Related Course; Digital Literacy]**

**Digital Imaging: Adobe Photoshop – NCC GRA 231****1 Credit**

Students expand upon their graphic design skills and knowledge of procedures learned in GRA 151. Through lectures, demonstrations, exercises and real-world projects, the focus will be on Adobe Photoshop. Students will learn to create as well as edit digital images. Students will apply these techniques to solve design problems in print and web environments. Students are required to have basic knowledge of graphic design before registering for this course. **Prerequisite: GRA 151 or ART 111, ART 121 or permission of the Graphic Design coordinator [Graduation Requirement: Fine Arts; STEM Related Course; Digital Literacy]**

**Digital Page Design: Adobe InDesign – NCC GRA 241****1 Credit**

Students expand upon their graphic design skills and knowledge of procedures learned in prerequisite courses. Through lectures, demonstrations, exercises, and real-world projects, the focus will be on Adobe InDesign. Students learn to construct digital documents while developing page layout and typography skills. Two hours lecture, three hours studio. **Prerequisite: GRA 151, pre- or co-requisite GRA 202 or permission of the Graphic Design coordinator. [Graduation Requirement: Fine Arts; STEM Related Course; Digital Literacy; Pathway Related Course]**

**WORLD LANGUAGE**Expectations for Each Level in All World Languages

**Level 1** The beginning course emphasizes the fundamental skills of listening, speaking, reading and writing. These skills are developed through a thematic approach that stresses themes such as sports, family, shopping, school, travel, and meals. Geography is also included. Individual cultural projects will be assigned at the teacher's discretion.

**Level 2** Continuation of the beginning course deals with fundamental skills with greater emphasis on the natural use of the language in everyday situations. Reading selections are used to enhance vocabulary skills. Culture is further developed. Students will complete individual projects on selected topics. **Prerequisite: Level 1.**

**Level 3** The intermediate course reinforces and advances fundamental skills. There is a greater emphasis on reading, listening, and speaking. Cultural themes are developed. Writing becomes expository and less structured. **Prerequisite: Level 2.**

**Level 4** Continuation of the intermediate course deals with fundamental skills relative to general study of literature, history, and culture. Emphasis is placed on conversational approach using language in practical solutions. Refinement of grammatical skills is pursued. Works of representative authors will be read and reported on in writing. Discussion periods will be provided. Individual and/or group projects will be accomplished during the year. **Prerequisite: Level 3.**

**Level 5** This course entails conversation, culture, grammar, oral reporting, selected readings, and writing samples. In this course, there are higher expectations on the mastery of the linguistic skills. More extemporaneous speaking in the classroom is required. **Prerequisite: Level 4.**

<b>Spanish 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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The beginning course emphasizes the fundamental skills of listening, speaking, reading and writing. These skills are developed through a thematic approach that stresses themes such as sports, family, shopping, school, travel, and meals. Geography is also included. **[Graduation Requirement: World Language]**

<b>Spanish 2</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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Continuation of the beginning course deals with fundamental skills with greater emphasis on the natural use of the language in everyday situations. Reading selections are used to enhance vocabulary skills. Culture is further developed. Students will complete individual projects on selected topics. **Prerequisite: Level 1. [Graduation Requirement: World Language]**

<b>Honors Spanish 2</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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This accelerated course is a continuation of the beginning course dealing with fundamental skills with greater emphasis on the natural use of the language in everyday situations. Reading selections are used to enhance vocabulary skills. Culture is further developed. Students will complete individual projects on selected topics. **Prerequisite: Level 1. [Graduation Requirement: World Language]**

<b>Native Language Spanish 1</b>	<b>Grades 9, 10, 11, 12</b>	<b>1 Credit</b>
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This course is for students who are fluent speaking Spanish but have basic skills in reading and writing and require support in those areas. Students will build on their competency in speaking, writing and reading their native language. To further enhance their understanding of the culture, special activities are developed. Students read-translate exercises, read-analyze stories and write Latin sentences. Emphasis is placed on Greek myths and daily life in ancient Rome. The impact of Latin and classical literature and history upon modern literature and current events is emphasized in all sequences of Latin Study 1-4. **[Graduation Requirement: World Language]**

<b>Spanish 5: Readings for Advanced Conversation, Culture, Composition</b>	<b>Grade 12</b>	<b>1 Credit</b>
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This course is conducted entirely in Spanish. This course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. Much time is devoted to developing oral proficiency with major emphasis on reading, listening, and writing skills. In this course, Spanish and Latin American cinema and current events from the Hispanic world are studied extensively. This course reviews basic grammatical structures, with a focus on listening, speaking, reading and writing at the intermediate ACTFL proficiency level. **[Graduation Requirement: World Language]**

<b>Advanced Placement Spanish Language</b>	<b>Grade 11, 12</b>	<b>1 Credit</b>
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This college-level course provides opportunities for students to demonstrate their proficiency in the modes of communication (Interpretive, Interpersonal, and Presentational) from the Intermediate to the Pre-Advanced range. When communicating, students in the AP Spanish Language and Culture course will demonstrate an understanding of the culture(s), incorporate interdisciplinary topics, make comparisons between the native language and the target language and between cultures, and use the target language in real-life settings. The AP Spanish Language and Culture course is conducted exclusively in Spanish. Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting. AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. **[Graduation Requirement: World Language]**

<b>Advanced Placement Spanish Literature and Culture</b>	<b>Grade 12</b>	<b>1 Credit</b>
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The AP Spanish Literature and Culture course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students develop proficiencies across the full range of communication modes (interpersonal, presentational, and interpretive), thereby honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, literary criticism). Students are expected to take the Advanced Placement exam. Advanced Placement (AP) classes are rigorous college courses that are offered in the high school setting.

AP courses require summer assignments that are due on the first day of school. The student is responsible for obtaining his or her summer assignments and submitting the completed work on time. Any student who fails to meet the due date for summer assignments will receive a failing grade. **[Graduation Requirement: World Language]**

<b>Chinese 1 (Mandarin)</b>	<b>Grade 9, 10, 11, 12</b>	<b>1 Credit</b>
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This beginning course stresses the fundamental skills: listening, speaking, reading, and writing. Cultural aspects are explored at all levels. Students will complete individual projects on selected cultural topics. **[Graduation Requirement: World Language]**

<b>American Sign Language 1</b>	<b>Grades 10, 11, 12</b>	<b>1 credit</b>
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This full-year course will introduce students to the basics of American Sign Language. It counts as a world language credit and is offered as an additional pathway related course. **[Graduation Requirement: World Language]**

DRAFT

# Pathways within Norwalk Public Schools

The concept of "Pathways," sometimes referred to as Career Pathways, Learning Pathways, or Personalized Pathways, is the expansion of educational options beyond the course sequences historically offered to students. The idea is to create opportunities for our students that occur outside of the traditional classroom setting, such as internships, apprenticeships, research projects, travel, community-service projects, or dual enrollment opportunities for college credit. A pathway is an exploratory program that consists of three or more credits that fall under a specific career cluster, subject area, or interdisciplinary field of study. As students meet established learning standards in a pathway, they will be prepared to apply the real-world skills at the end of their junior and senior years.

The minimum of three courses are categorized as:

- Introductory course(s) – provides the basic tools for success in the content area
- Concentration course(s) – applies the skills learned
- Capstone course(s) – provides an opportunity to expand on the learning, refine skills, and demonstrate proficiency in the area of interest

Some pathways have more than three credits because there are specific in-depth requirements that may include dual-enrollment courses taken in conjunction with a university or community college, Advanced Placement (AP) courses, International Baccalaureate (IB) courses, preparation for tests in technical or career areas, and longer timeframes that must be adhered to.

The pathways are focused around the 16 Career Clusters from the National Career Clusters Framework and the Career Technical Education (CTE). These clusters and areas of interest are associated with subject areas and departments similar to the structure at colleges and universities.



## **Capstone Experience and Mastery Based Assessment**

Beginning with the Class of 2023, all students must successfully complete a Capstone Experience, which will count as their mastery-based diploma assessment prior to graduation. This Experience is a culmination of a student's learning in a particular area over the course of three or four years. Students will select specific courses, academic programs, and learning opportunities that align with their interests. When a student and his or her family meets with their school counselor, they will decide on courses that align preparing them to complete a Capstone.

### **General Overview**

- Exploration in grades 9- 4 modules and in grade 10 – 4 modules.
- Assessment: One rubric containing all 5 components with descriptors (proposal, ongoing reflection, research, product, exhibition)
- Timeline: Most students will complete it in the winter of grade 12, others in the spring. Students have the option of completing it during grade 11 if they choose.

### **. Each Capstone must include the following required components:**

- Proposal
  - Structured exploration (grades 9 and 10)
  - Notification of deadline to parents/guardians (grade 11)
  - Essential questions/thesis (start of semester 2 in grade 11)
  - Honors option declaration if applicable
- Ongoing reflection
  - Choices for reflection (minimum entries to be determined between 9-18)
  - Mentor with required “check-ins”
- Research
  - Annotated bibliography/works cited (in conjunction with Library Media Specialist)
  - Community involvement (must do one of the following)
- Product
  - Can include, but not limited to one of the following: internship with specific evidence (mentor will provide examples); film; paper, work of art (music, art); event; products evaluated by content-specific certified staff.
- Exhibition/Presentation
  - Modes of presentation with scoring (Audience of peers, parent/guardian, and/or faculty)
  - Question and answer session (Exit interview with peer or faculty)
  - Includes portfolio containing all of the components of the Capstone Experience

## **Academies and Pathways at Brien McMahon High School**



***International Baccalaureate Diploma Programme***

***International Baccalaureate Career-related Programme***

***Medical Health Care Academy***

***Marine Science Academy***

***Project Lead the Way Engineering***

***Project Lead the Way Computer Science***

## International Baccalaureate Courses and Diploma

### Who is eligible to take IB classes?

All eleventh- and twelfth-grade students have the option to enroll in individual IB courses. IB courses are weighted as college-level classes and require completion of internal and external assessments. External assessments are graded by the International Baccalaureate Organization (IBO). Successful completion of an IB course may transfer as college credit. Any current tenth-grader interested in taking an IB course may enroll during course selection.

All incoming eleventh-graders who have successfully completed coursework in grades nine and ten and met the prerequisites required for a rigorous college-level course of study are invited to commit to the two-year IB course of study.



Entrance to IB Diploma Program at BMHS is by enrollment process. Only current 10th graders are eligible to enroll in the full IB Diploma Program. Information about the enrollment process can be obtained from guidance counselors or downloaded from <http://bmhsib.wixsite.com/bmhs>. For more information, contact Nicole Stockfisch at [stockfischn@norwalkps.org](mailto:stockfischn@norwalkps.org), or 203-852-9488 ext. 11275.

### What is required to earn an IB diploma?

In addition to meeting proficiency in the required six subjects—through external and internal assessments—IB students submit a 4,000 word (about 8 pages) Extended Essay (EE), complete 150 hours of Creativity, Activity, Service (CAS), and enroll in a 100-hour two-year interdisciplinary course: Theory of Knowledge (TOK). IB Diploma Candidates must plan their schedules carefully to complete the diploma and to fulfill Connecticut State graduation requirements.

Students who wish to work towards the full-IB Diploma are required to complete:

- Success in six subjects through internal and external assessments
  - A minimum of three High Level (HL) Courses, but no more than four (three is typical)
  - A minimum of two Standard Level (SL) Courses, but no more than three (three is typical)
  - Students working to complete the IB Diploma Programme may substitute a course in The Arts/Group 6 with an additional course in Groups 2, 3, 4, or 5.
- Success in the subject requires a minimum average score of 4 out of 7 on the respective exam (including internal and external scores in totality). All exams are scored externally by the International Baccalaureate Organization (IBO).
- Success in the IB Core
  - Extended Essay
  - Creativity, Activity, Service (CAS)
  - Theory of Knowledge (TOK)

Most IB courses are taught over a two-year period and completion of the IB Diploma Program requires a two-year commitment for completion.

## International Baccalaureate Career-related Programme

The IB-CP is an innovative framework incorporating the vision and educational principles of the IB into a unique program specifically tailored for students who wish to engage in career-related learning. The aim of this program is to assist students in the development of their personal career vision and empower them to succeed in the next academic challenge and future entry into the global, knowledge-based economic workforce.



### IB-CP Components

Brien McMahon High School will provide four career-related pathways in 2020-2021 that are in alignment with the IB Career-related Program: PLTW Engineering, PLTW Biomedical, PLTW Computer Science and Navel Junior Reserve Officer Training Corps. (NJROTC) The foundation of the program is built around three interconnected elements:

1. **IB Courses/Assessments:** A Career Program student must complete two IB courses and pass the external examinations in each course. The courses are to relate to the focus of the student's pathway.
2. **Career Program Coursework:** A student must complete one course during both junior and senior year in one of the career-related studies pathways. This course of studies will support the program's academic strength and provide practical, real-world approaches to knowledge and learning in the selected career field.
3. **The Core:** The components of the care are designed to create a bridge connecting the IB courses and the career-related studies and it serves as the foundation of our Career Pathways Program. It includes the *Personal and Professional Skills* class, a Service-Learning Program, a Language Development Portfolio, and a Reflective Project.
  - The **Personal and Professional Skills** course emphasizes personal development, intercultural understanding, effective communication, thinking process and applied ethics with opportunities to further investigations of a career pathway.
  - **Language Development** includes the study of a world language in the student's junior year accompanied by a completion of a language development portfolio.
  - The **Service Learning Program** component is based on the principle of using community service as a vehicle for new learning with academic value. The service-learning model emphasizes knowledge development, civic development, social development and personal development.
  - Through the **Reflective Project** students identify, analyze, critically discuss and evaluate an ethical issue arising from their entire career learning experience and students will present their reflection to community members in a final presentation. This project is submitted to the IBO for external evaluation. It can be created in different formats, including: a 3,000 word essay or a 2,000 word essay and a short film, photographic storyboard, spoken presentation, or interview.

Entrance to IB Career-related Program at BMHS is by enrollment process. Only current 10th graders are eligible to enroll in the Program. Information about the enrollment process can be obtained from School counselors or downloaded from <http://bmhsib.wixsite.com/bmhs>. For more information, contact Thomas Seuch, IB-CP Coordinator at [seucht@norwalkps.org](mailto:seucht@norwalkps.org) or (203)-852-9488 x11224





## The Marine Science Academy at BMHS

The Marine Science Pathway at BMHS is a learning community in partnership with local and regional industries in the field. Students enrolled in the pathway will have the opportunity to explore career options that are integrated throughout the curriculum with a particular focus on hands-on learning in real-world settings. This pathway will provide invaluable experiences for students interested in the program by exposing them to the techniques and technology that are current and relevant in the diverse Marine Science field. By working with our partnerships, our students will have exposure to relevant careers as well as a greater knowledge of post-secondary education options including regional maritime academies.

Students will ultimately have the opportunity to engage in the practical application of their studies through field experiences, internships and apprenticeships. Concurrently with the STEM courses, students will be following a 4-course sequence of Marine Studies resulting in a general overview of the Marine Science field as well as a focus area of concentration identified by the student during the junior year.

Acceptance into the Marine Science Pathway at BMHS is by application only. Applications will be available at the time of course selection.

### Marine Science Academy Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
Biology or Honors Biology  <b>Pathway Offering</b> Marine Studies I	Chemistry or Honors Chemistry  <b>Pathway Offering</b> Marine Studies II	Physics, Honors Physics, Chemistry, IB Physics Y1/IB ESS Y1  <b>Pathway Offering</b> IB ESS Y1 Marine Biology .5 Environmental Science .5 Farm to Table .5	Physics Honors/Physics/IB Physics Yr2/IB ESS Yr 2  <b>Pathway offering:</b> IB ESS Yr 2 Class TBD  Honors Marine Biology  Marine Biology 0.5  Environmental Science 0.5  Garden to Table 0.5



## The McMahon Healthcare Academy

The McMahon Healthcare Academy is a small learning community in partnership with Norwalk Community College and The Norwalk Hospital that offers any interested student an academic curriculum with a focus on careers in the healthcare field. Students enrolled in the academy will be exposed to and engaged in; a rich integrated curriculum, collaboration with NCC for authentic experiences and the application of interdisciplinary experiences, field experiences, professional certifications and membership in HOSA (National Organization of Future Healthcare Professionals). Concurrently with the science classes, students will be following the 4 course Biomedical Science sequence of PLTW. Entrance into the McMahon Healthcare Academy is by application only. Applications will be available at the time of course selection.

### 4-Year Program with 6 Components

- Common integrated curriculum
- 1. Collaboration and application of interdisciplinary instruction as well as authentic experiences with NCC
- 2. Field Experiences within the medical community
- 3. College level courses
- 4. Professional certifications
- 5. Membership in HOSA

### MHA Required Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
Biology or Honors Biology w/EIPS  <b>Pathway offering</b> Principles of Biomedical Science (PLTW)	Chemistry or Honors Chemistry w/EIPS  <b>Pathway offering</b> Human Body Systems (PLTW)	Honors Physics/Physics/Chemistry IB Chemistry/.IB Sports Exercise Y1/IB Biology Y1  <b>Pathway offering</b> Medical Interventions (PLTW)  UConn ECE Medical Terminology .5 IB Sports Exercise Y1 IB Biology Y1 Forensics .5 Genetics .5 Experimental Chemistry .0 EMT Certification	Physics Honors/Physics/IB Physics/IB Sports and Exercise Y2/IB Biology Y2  <b>Pathway offering</b> Physics/IB Physics/IB Sports and Exercise Y2/IB Biology Y2 Medical Interventions (PLTW)  UConn ECE Medical Terminology .5 Forensics .5 Genetics .5 Experimental Chemistry .0 EMT Certification

### Certifications Offered

Emergency Medical Technician: EMTs provide out of hospital emergency medical care and transportation for critical and emergent patients who access the emergency medical services (EMS) system. EMTs have the basic knowledge and skills necessary to stabilize and safely transport patients ranging from non-emergency and routine medical transports to life threatening emergencies.

# PLTW | Engineering

High school students now will have the opportunity to take pre-engineering courses as part of their high school program. This Pathway to Engineering Program is designed as a flexible four-year sequence that will fit into any student’s schedule and is taught in conjunction with traditional mathematics and science courses. Research shows that PLTW students are five times as likely as other students to choose engineering and related disciplines in college and they have a higher retention rate in post-secondary engineering, science and related programs. Students who maintain a 75% average in their mathematics/science courses, enjoy working with computers, learn best in a hands-on environment and show an interest in STEM careers should consider this program. Project Lead the Way has relationships with more than 100 colleges and universities. Of these, 36 colleges offer credit to students for completing Project Lead the Way courses.

## PLTW Course Sequence

Grades 9 or 10	Grades 10 or 11	Grades 11 or 12
1 required: Principles of Engineering and Design Intro to Engineering and Design	1 required: Intro to Engineering and Design Principles of Engineering and Design  Digital Electronics	1 required: Civil Engineering and Architecture Research Methods in Science Engineering CP Core Digital Electronics

# PLTW | Computer Science

The program’s interdisciplinary courses engage students in compelling, real-world challenges. As students work together to design solutions, they learn computational thinking – not just how to code – and become better thinkers and communicators. Students take from the courses in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they take.

Grades 9 or 10	Grades 10 or 11	Grades 11 or 12	Grade 12
PLTW Honors Computer Essentials	PLTW Honors Computer Science Principles*	PLTW Honors Computer Science A*	PLTW Honors Cybersecurity

\*Honors Computer Science Principles and Honors Computer Science A are endorsed by the College Board, giving students the opportunity to take the **AP Exam** offered for Computer Science Principles and the Computer Science A classes for college credit.

At a time when computer science affects how we work and live, PLTW Computer Science empowers students in grades 9-12 to become creators, instead of merely consumers, of the technology all around them. According to code.org:

- 71% of all new jobs in STEM are in computing while only 8% of STEM graduates are in Computer Science.
- There are currently 6,473 open computing jobs in the state of Connecticut with only 404 computer science graduates.
- Nationally, there are over 500,000 open computing jobs in every industry; they’re projected to grow at twice the rate of all other jobs.

## Pathways Suggestions for **Brien McMahon High School**

Career Cluster	Grades 9 or 10	Grades 10 or 11	Grades 11 or 12
Pathway	Introductory Course(s)	Concentration Course(s)	Capstone Course(s)
<i>Visual Arts (Arts, A/V, and Communications)</i> <b>Communications</b>	1 of the two required:  Art 1  Graphic Art and Design	<b>Any Studio (Level 1 or 2):</b>  3D Media 1/2  Design 1/2 Drawing 1/2 Painting 1/2 Printmaking 1/2	Level 2 studio  Honors Portfolio  AP Studio Art
<i>Visual Arts (Arts, A/V, and Communications)</i> <b>Visual Arts</b>	1 of the two required:  Art 1  Graphic Art and Design	<b>Any Studio (Level 1 or 2):</b>  Photography 1/2  Digital Video and Animation 1/2  Yearbook Design  Critical Approaches to Film and Media Study Digital Storytelling	Honors Portfolio  AP Studio Art
<i>Visual Arts (Arts, A/V, and Communications)</i> <b>Performing Arts</b>	1 of the two required:  Art 1  Graphic Art and Design	Art History  Cultural Perspectives  Arts Through the Decades	AP Art History
<i>Business Management and Administration</i> <b>Finance</b>	Principles of Finance  Computer Applications (9)	Principals of Investing  Honors Accounting I (Dual Enrollment) Personal Finance	Personal Finance  Honors Accounting I or II
<i>Business Management and Administration</i> <b>Business Administration</b>	Principles of Business  Exploring Entrepreneurship (9) Computer Applications (9)  Principles of Personal Finance Computer Applications	Entrepreneurship or Honors Entrepreneurship Business in the Global Economy  Personal Finance  Marketing  Business Law	Entrepreneurship (required)  IB Business Management Y2
<i>Business Management and Administration</i> <b>Marketing</b>	Principles of Business  Computer Applications (9)	Principles of Marketing  International Business	Marketing 2  Sports and Entertainment Marketing
<i>Business Management and Administration</i> <b>Computer Systems</b>	Computer Applications (9)	Video Game Design  Principles of Business	Advanced Computer Applications  Web Page Design

<i>Government and Public Administration</i> <b>Politics</b>	World History grade 9 only	US History or AP US grade 10 only Honors Economics AP European History	AP European History AP Government IB SL Economics
<i>Government and Public Administration</i> <b>International Relations</b>	World History grade 9 only	Revolution and Terrorism Current Issues Level 2 of a World Language (WL) Comparative Religions IB HL Yr 1 History of Middle East and Africa	Public Speaking (English) AP Comparative Politics Level of 3 of World Language (WL) IB HL History of the Americas IB SL Global Politics
<i>Government and Public Administration</i> <b>Pre-Law</b>	US History	Civics Biography of Constitution Culture and Conflict (English)	Public Speaking (English) AP Government Crime Lit (English) Public Speaking (English) Immigrant Experience (English)
<i>Human Services</i> <b>Public Safety and Law</b>	Psychology 1 Psychology 2	Psychology 2 Sociology I	1 of the following two: IB Psychology AP Psychology Sociology 2 Public Speaking (English)
<i>Communication (Arts, A/V, and Communications)</i> <b>Publishing</b>	Journalism 1 (required)	Journalism 1 (required) Journalism 2 (required) Additional Options: Creative Writing Advanced Creative Writing Psychology and Literature	Journalism 3 (required) Creative Writing Advanced Creative Writing Sports Literature Adolescent Literature
<i>STEM</i> <b>Engineering and Math</b>	Algebra 1 Geometry/Honors Geometry Algebra 2/ Honors Algebra 2	Geometry/Honors Geometry Algebra 2/Honors Algebra 2 Pre-calculus/Honors Pre-calculus IB Math 1	1 of the following required: AP Calculus AP Statistics IB Math 2
<i>Government and Public Administration</i> <b>Protective Services</b>	NJROTC 1	NJROTC 2 NJROTC 1	NJROTC 3 NJROTC 4 ( <i>grade 12 only</i> )
<i>International Studies</i> <b>World Language, Food, and Culture</b>	Principles of Culinary Arts	Culinary Arts 1 (World Survey)	World Language 3+ World Language 4+ (Spanish, Italian, French, Arabic, Japanese, Chinese) Culinary Arts Internship

## **Pathways at Norwalk High School**



**DMCA**

**Project Lead the Way Engineering  
Interdisciplinary Global Engagement Pathway**

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# D.M.C.A.

Norwalk High School  
Digital Media  
Communication Academy



The DMCA is an academy that will enable students from Norwalk High & Brien McMahon to learn the tools professionals use to communicate in the 21st century. Students will have an opportunity to earn college credit and be creators of media for NHS and beyond.

## APPLY TODAY

STEP ONE: fill out the application

STEP TWO: talk to current school counselor to make sure you are signed up for courses



PHASE ONE:

**Media Consumption & Creation**  
(Grade 9 & 10)

PHASE TWO:

**STUDENTS SHOULD:**  
Take at least a 1/2 credit in one of the following courses: Journalism I, II, III, Broadcast Journalism I, II, Digital Video and Animation, Photography I, II, III, Critical approach to film, Sports Media Communications.

PHASE THREE:

**SEMESTER 1:** Advanced Media Studies (Required) 1/2 credit

**SEMESTER 2**

*Students will choose TWO of the following:*

COMMUNICATION THROUGH PHOTOGRAPHY and GRAPHIC DESIGN  
AUDIO DESIGN and PODCASTING  
FILM PRODUCTION  
DIGITAL COMMUNICATIONS

PHASE FOUR:

**SEMESTER 1:** Digital Web Development

**SEMESTER 2:** Digital Portfolio / Capstone

The Norwalk High School

est. 2004

# PAW PRINT

*"How the Bears  
make their mark."*

# BCN

# BCSN

**Norwalk High School Bear Country News**

*"Created by the students for the students to inform & entertain."*

est. 2011

THE NORWALK HIGH SCHOOL BEARS DEN

THE NORWALK HIGH SCHOOL STOP FOR THE STUDENT VOICE OF NEWS, SPORTS, OPINION, & ENTERTAINMENT

nhsbearsden.com



## DMCA

Phase 1	Phase 2	Phase 3	Phase 4
Media Consumption and Creation Any available elective in Phase 2	<b>Students must take at least one of the .5 credit courses:</b> Journalism I, II, III Broadcast Journalism I & II Digital Video & Animation Photography I, II, III Critical Approach to Film Digital Storytelling Sports Media Communication I and II	Semester I: Advanced Media Studies Semester 2: (Must choose two) Communication through Photography and Graphic Design Audio Design and Podcasting Film Production Digital Communication	Semester I: Digital Web Development  Semester 2: Digital Portfolio/Capstone

From launching space explorations to delivering safe, clean water to communities, engineers find solutions to pressing problems and turn their ideas into reality. PLTW Engineering empowers students to step into the role of an engineer, adopt a problem-solving mindset, and make the leap from dreamers to doers. The program's courses engage students in compelling, real-world challenges that help them become better collaborators and thinkers. Students take from the courses in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they take.

## PLTW | Engineering

This Pathway to Engineering Program consists of the following courses:

<b>SC3410HAE</b>	Honors Introduction to Engineering Design
<b>SC3411HAE</b>	Honors Principles of Engineering
<b>SC3415HAE</b>	Honors Civil Engineering and Architecture
<b>SC3387HAE</b>	Honors Environmental Sustainability

	Grades 9 or 10	Grades 10 or 11	Grades 11 or 12
<i>Engineering</i> Project Lead the Way (PLTW)	1 required: Intro to Engineering and Design Environmental Sustainability	1 required: Intro to Engineering and Design Principles of Engineering and Design Environmental Sustainability Civil Engineering and Architecture	1 required: Intro to Engineering Design Principles of Engineering Environmental Sustainability Civil Engineering and Architecture



## Public Health and Sustainability Pathway

This pathway gives students an opportunity to choose a direction of study that addresses their interests in science.

The public health direction involves managing the problems and dangers that occur in society every day. Workers like firefighters, police officers, emergency medical technicians (EMTs) and air traffic controllers respond to society's emergencies and help keep the general public safe. Environmental safety specialists may aid in the event of disasters that could expose the public to dangerous situations or inform the public about chemical hazards; they may also help research and develop U.S. Occupational Safety and Health Administration (OSHA) standards, materials, and training for businesses.

The pathway can lead to possible community experiences as an internship or capstone project. Possible community experiences include working with the Norwalk Police Department, City of Norwalk, Norwalk Fire Department, Habitat for Humanity, and school psychologists and social workers.

Grade 9	Grades 10 or 11	Grades 11 or 12
<p><i>Required:</i> Biology</p>	<p><i>Required:</i> US History</p> <p>-----</p> <p><i>1 of the following:</i> Genetics Forensics Everyday Chemistry Public Health &amp; Epidemiology 1st Aid/CPR</p> <p>-----</p> <p><i>1 of the following:</i> Sociology Psychology Social Justice</p>	<p><i>Required:</i> Civics</p> <p>-----</p> <p><i>1 of the following:</i> Human Anatomy and Physiology ECE Biotechnology AP Biology AP Psychology</p> <p>-----</p> <p><i>1 of the following: (if not fulfilled)</i> Sociology Psychology Social Justice</p>

The sustainability direction gives students a chance to interact with two of the scientific disciplines that hold the keys to 21st century science, environmental science and biotechnology. As academic, political, and civic discourse increasingly merge with the impacts of these two budding fields, it is imperative for students to have an understanding of applied chemistry, environmental sciences, and biotechnology so that they have the scientific literacy necessary to make informed decisions for their everyday lives. The pathway can lead to possible community experiences as an internship or capstone project. Possible community experiences include working with Maritime Aquarium, Earthplace and Sherwood Island.

Grade 9	Grades 10 or 11	Grades 11 or 12
<p><i>1 of the following:</i> Biology Earth and Integrated Physical Science</p>	<p><i>1 of the following:</i> Environmental Science Environmental Sustainability (PLTW) Astronomy Meteorology Everyday Chemistry</p>	<p><i>1 of the following:</i> AP Environmental ECE Biotechnology</p>

## NHS Interdisciplinary Global Engagement Pathway

The Norwalk High School Interdisciplinary Global Engagement Pathway (IGEP) is an exciting opportunity open to all NHS students. The goal is for students to become globally competent citizens through world-wide exploration, recognition of global perspectives, communication to diverse audiences and the drive to take action to initiate change.

Students will be eligible to apply for the Connecticut Certification of Global Engagement by successfully completing the following pathway requirements:

World Language Coursework	STEM, Humanities, & other coursework	Globally Focused Student activities	Global Service Learning or Action Project
Successful completion of 3 years of high school equivalent study in one or more world language(s).	Successful completion or 4 credits of coursework in courses with a global focus	Demonstrate competency in global citizenship through active participation in at least one of more co-curricular and other school-sponsored or endorsed activities over at least 3 activities of their high school experience	Each student shall complete a global/cross-cultural public service project involving at least twenty (20) hours of work, connected to a global community (different from his/her own) or to a contemporary global issue.

### STEM, Humanities, & other coursework:

Students provide information on applicable coursework; committee approves/denies; students must defend coursework. Coursework must meet requirements based on principles based on the [Asia Society Global Competence Matrices](#) of investigating the world, recognizing perspectives, communicating ideas, and taking action.

### Globally Focused Student activities:

The NHS Clubs listed below pride themselves on a global focus, making these organizations prime options for fulfilling the extra-curricular requirement portion of the IGEP. Many of these clubs also offer international travel experiences as an option for members. Additional NHS clubs may be considered with the approval of the IGEP coordinator, however we currently have the following options available:

**Norwalk STEM Travelers**

**NHS Spanish Club**

**NHS French Club**

**Arts, Conservation & Exploration (ACE)**

**NHS Italian Club**

**[buildOn](#)**

**Spanish National Honor Society**

**National Honor Society**

**NHS Latin Club**

**Earth Club**

### Global Service Learning or Action Project:

Projects are selected, designed and completed on an independent basis. Students can choose to complete the project as part of coursework or student activity. Faculty can facilitate as mentors and for evaluation as part of the approval process.

## Pathway Suggestions at **Norwalk High School**

Career Cluster	Grades 9 or 10	Grades 10 or 11	Grades 11 or 12
Pathway	Introductory Course(s)	Concentration Course(s)	Capstone Course(s)
<i>Visual Arts, A/V, and Communications</i> <b>Commercial and Fine Arts Design Pathway</b>	1 of the 2 required: Art 1 Art 2	1 <i>credit</i> of the following required: Art 1 or 2 Design 1 or 2 Textile Arts 1 or 2 Digital Art 1 or 2 3D Sculpture 1 or 2 Printmaking 1 or 2 Photo 1 or 2	.5 or 1 <i>credit</i> of the following Capstone required: Textile Arts 1 or 2 Design 1 or 2 Photo 1 or 2 Honors Photo 3 Honors Portfolio AP Studio Art AP Art History
<i>Visual Arts, A/V, and Communications</i> <b>Media Arts Pathway</b>	1 of the 4 required: Art 1 Art 2 Digital Art 1 Digital Art 2	1 <i>credit</i> of the following required: Art 1 or 2 Photo 1 or 2 Digital Art 1 or 2 Digital Video and Animation 1 or 2	.5 or 1 <i>credit</i> of the following Capstone required: Digital Art 1 or 2 Photo 1 or 2 Honors Photo 3 Digital Video and Animation 1 or 2 Honors Portfolio AP Studio Art
<i>Visual Arts, A/V, and Communications</i> <b>Art History Fine Arts Pathway</b>	1 of the 3 required: Art 1 Art 2 Art History	Art 1 or 2 Art History Cultural Perspectives Modern and Contemporary Art	.5 or 1 <i>credit</i> of the following Capstone required: Art History Cultural Perspectives Modern and Contemporary Art AP Art History
Visual Arts (Arts, A/V, and Communications) <b>2D and 3D Media Fine Arts Pathway</b>	1 of the 3 required: Art 1 Art 2 Digital Art 1	Art 2 Design 1 or 2 Textile Arts 1 or 2 Drawing 1 or 2 Painting 1 or 2 3D Sculpture 1 or 2 Clay Sculpture Printmaking 1 or 2	.5 or 1 credit of the following Capstone required: 3D Sculpture 1 or 2 Clay Sculpture Drawing 1 or 2 Painting 1 or 2 Printmaking 1 or 2 Design 1 or 2 Textile Arts 1 or Honors Portfolio AP Studio Art

<i>Business Management and Administration</i> <b>Finance</b>	Principles of Finance (required) Computer Applications	Principles of Investing (required) Business in the Global Economy Honors Accounting 1* or *Dual-Enrollment Accounting (UB Credit)	Finance (required)
<i>Business Management and Administration</i> <b>Accounting</b>	Principles of Business (required) Computer Applications	Honors Accounting 1 or Dual-Enrollment Accounting (UB Credit) (required) Business Law Finance	Honors Accounting 2 (required)
<i>Business Management and Administration</i> <b>Marketing</b>	Principles of Business (required) Principles of Finance Computer Applications	1 credit of marketing related course(s) required: Marketing 1 Sports and Entertainment Marketing Business in the Global Economy (required)	Marketing 2 (required)
<i>Information Technology (Business Management and Administration)</i> <b>Information Technology</b>	Computer Applications Advanced Computer Applications	1 credit of the following: Web Page Design Computer Construction Repair Video Game Design	Video Game Design
<i>Business Management and Administration</i> <b>Business Administration</b>	Principles of Business (required) Exploring Entrepreneurship Principles of Finance	1.5 credit of business related course(s) required: Marketing 1 Business Law Business in the Global Economy Honors Accounting 1 or Dual-Enrollment Accounting (UB Credit)	Entrepreneurship with dual enrollment UB (required)
<i>Business Management and Administration</i> <b>Entrepreneurship</b>	Principles of Business Exploring Entrepreneurship Computer Applications	Business in the Global Economy Honors Accounting 1 or Dual-Enrollment Accounting (UB Credit)	Entrepreneurship (with UB Dual Enrollment) (required)



# Connecticut State Seal of Biliteracy

Students may acquire proficiency in multiple languages through various pathways. Some examples include the traditional world language program, the traditional MLL/MLL program, and Native World Language program (English speakers who study their parents' native language and culture) among others.

To attain the Connecticut State Seal of Biliteracy, students' *use* of the language must be demonstrated, rather than their *knowledge* about the language. Therefore, a student must demonstrate proficiency in English and another language by meeting specific criteria.

Both native and non-native speakers of English must provide comparable evidence of English language proficiency. The language performance should be demonstrated in both social and academic use of the language, in all modes of communication.

To be eligible to receive the Connecticut State Seal of Biliteracy, the following two academic requirements must be met:

1. Students must complete all English Language Arts (ELA) requirements for graduation.
2. Students must demonstrate proficiency in a language other than English in grades 10, 11, or 12 at a level comparable to "Intermediate Mid" on the ACTFL Proficiency Guidelines as demonstrated through one of the following methods:

Assessment or Evidence	Minimum Score
ACTFL Assessment of Performance toward Proficiency in Languages (AAPPL) Measure	Intermediate level 3 in all 4 domains
International Baccalaureate (IB) World Language Exam	Level 4
Advanced Placement (AP) World Language Exam	Level 3
ACTFL Latin Interpretive Reading Assessment (ALIRA)	Level 3

For a student whose non-English language is low incidence and proficiency cannot be established by any of the assessments in the table above, the following steps must be taken:

- a. There will be an assessment of interpersonal face-to-face communication as well as interpretive listening, presentational speaking, and reading and writing where a written code exists.
- b. Certification by the principal, or designee, that a low-incidence language plan was completed.

## Distribution of the Connecticut State Seal of Biliteracy

The Connecticut State Seal of Biliteracy will be affixed to a qualifying student's diploma and will also be noted on his/her high school transcript. Grade 12 students who achieve the Seal through an assessment whose results are released over the summer (e.g., Advanced Placement or IB exams), will be mailed the Seal so they can place it on their own diploma.

*On the next page, multiple pathways to biliteracy are listed as a guide for decision-making. Students have the opportunity to take courses in the order listed to progress along a pathway to earn the Connecticut State Seal of Biliteracy*

# Alternative Education

The **i-Lab** at BMHS and the **Core Lab** at NHS are recuperative models that offer students alternatives in their learning experience through small supportive environment and an interdisciplinary approach. They follow the Norwalk Public Schools curriculum through a blended learning model.

The Lab programs are committed to meeting the unique educational, social, and emotional needs of students in a safe and nurturing environment. They focus on the diverse instructional needs of our students using methods that align with their personal learning styles.

Our Lab approach to learning is centered on helping students achieve academic success and preparing them for meaningful opportunities after high school. They offer credit recovery opportunities for over-age and under-credited students so they can recoup necessary credits toward graduation. Once students meet specific credit and attendance criteria, they may return to the comprehensive classroom setting for the following school year. Student can only join the labs with a learner team recommendation and administrative approval.

Students in the Lab programs may participate in all Norwalk Public Schools clubs, athletics and events.

# Online Learning

Norwalk offers online courses credit recovery through the online learning platform **Edgenuity**. Students' complete tasks, watch videos and lessons, take notes, practice independently...etc. both in and outside of the classroom. They have a certified teacher to assist with questions during the *Online Learning Tutorial* period within their daily schedule. There are also after school support sessions multiple times per week during the fall and spring semesters. This enables each student to meet with a certified teacher to receive support, remediation.

## Credit Recovery Course List

**Administrators assign courses for credit recovery based on individual student need and require a signed contract.**

<u>NPS Course</u>	<u>Edgenuity Equivalent Course</u>	<u>Credit</u>
<b>English</b>		
English 1	ELA 9	1
English 2	ELA 10	1
English 3	ELA 11	1
English 4	ELA 12	1
<b>Math</b>		
Algebra 1	Algebra 1	1
Algebra 2	Algebra 2	1
Geometry	Geometry	1
Intermediate Algebra	TBD	1
Math for College Success	Math for College Success	0.5
<b>Science</b>		
Biology	Biology	1
Chemistry	Chemistry	1
Physics	Physics	1
Astronomy	Astronomy: Exploring the Universe	0.5
Forensics	Forensic Science: Secrets of the Dead	0.5
Marine Biology	Marine Science: Secrets of the Deep Blue	0.5
Environmental Science	Environmental Science	0.5
Earth History	Earth Science	0.5
<b>Social Studies</b>		
World History	Survey of World History	1
US History	US History 2	1

Civics	US Government	0.5
Psychology	Psychology	0.5
Sociology	Sociology	0.5
<b>World Language</b>		
Spanish 1	Spanish 1	1
Spanish 2	Spanish 2	1
Spanish 3	Spanish 3	1
French 1	French 1	1
French 2	French 2	1
French 3	French 3	1
Italian 1	Italian 1	1
Italian 2	Italian 2	1
Italian 3	Italian 3	1
<b>PE/Health</b>		
PE	TBD	0.5
Health 1	TBD	0.5
Health 2	TBD	0.5
<b>Computers</b>		
Computer Applications	Computer Applications: Office 2016	0.5

### **Out of District Special Programs**

Parents and students are able to explore other educational opportunities that are offered in the school district and regionally. These options may include magnet, charter, and vocational-technical schools; inter-district programs; and vocational agriculture centers, Center for Global Studies, Regional Center for the Arts, J. M. Wright Technical High School, and the Academy of Information Technology and Engineering. Contact the Guidance Department for further information on these School Choice options.

### **Academy of Information Technology and Engineering (Stamford)** <http://ait.echalk.com>

The Academy of Information Technology (AITE) is an inter-district magnet college preparatory high school, welcoming students from within Stamford and the neighboring communities of Darien, Greenwich, New Canaan, Norwalk and Ridgefield. While the curriculum is demanding, it is designed to challenge high achievers and at the same time make high achievers of those who would have performed more disinterestedly elsewhere.

In addition to a challenging curriculum AITE offers a small school setting, a highly desirable student-teacher ratio, state-of-the-art computer laboratories, college collaborations and learning experiences that reach beyond the classroom. The Computer Technologies Concentration includes courses in networking, programming, Microsoft suite applications, CISCO and electives. The Digital Arts Concentration includes courses in Adobe suite applications, web design, CAD, 3D animation, digital music and electives. The Architecture and Engineering concentration consists of courses that include the survey of architecture and engineering, engineering design, digital electronics, principles of engineering and electives. Each of our areas of concentration affords students with the opportunity to obtain nationally recognized certifications, college credits and paid internships. **Students should meet with their counselor for an application.**

### **J. M. Wright Technical School (Stamford)** <http://www.cttech.org/wright/> 203-324-7363

The mission of the Connecticut Technical High School System is to provide a world-class, unique and rigorous learning environment for high school students and adult learners that:

- Ensures both student academic success and career technical education mastery, as well as promotes enthusiasm for lifelong learning,
- Prepares students for post-secondary education, including apprenticeships and immediate productive employment,

- Engages regional, state, national and international employers and industries in a vibrant collaboration to respond to current, emerging and changing global workforce needs and expectations, and
- Pursues and participates in global partnerships that provide CTHSS students with international exposure and experience.

The administration, faculty and staff of J.M. Wright Technical High School believe that our students are unique and capable of achieving their highest potential. We believe in the importance of creating a safe and supportive learning environment for students. Our mission is to provide a dual comprehensive program of expert instruction in both a specific trade technology and core academic subjects. We hold our students to high standards so that they can achieve their personal best. We strive to endow our students with the skills to become critical thinkers and productive citizens. We believe the success of J.M. Wright Technical High School is strengthened and advanced through cooperative relationships with business, industry, alumni and the community.

**Goal One – To Provide Students with a Safe and Supportive Environment:** Through the programs provided by the guidance department, special education services, support services, faculty and staff, all members of the school community meet the emotional, social, intellectual, and safety needs of students.

**Goal Two – To Provide Opportunities for Students to Reach Their Highest Academic and Technical Aspirations:** Through the implementation of district-approved curriculum, academic and trade instructors provide students with appropriate learning opportunities to achieve the highest state and national standards of performance.

**Goal Three – To Prepare Students for the Demands of 21st Century Technology:** Through the implementation of curriculum units requiring technological capabilities, all instructors provide opportunities for students to increase their ability to employ the most current technologies.

**Goal Four – To Prepare Students to be Critical Thinkers and Productive Citizens:** Through the support of the Trade Technology Advisory Committee, Work Based Learning, College Careers Pathways, Skills USA, trade-related field experiences, critical thinking academic programs, programs in community service, travel abroad and other programs, we provide students with opportunities to thoughtfully and productively engage with their local communities and the larger world community.

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## **Regional Center for the Arts (RCA) (Trumbull)**

Regional Center for the Arts is a performing arts magnet high school program serving students in grades 9 – 12. RCA's student body serves students in the greater Norwalk region and reflects the racial, ethnic and socioeconomic diversity of students in that area. Students attend their local public high schools in the morning and attend RCA Monday through Thursday from 1:30 to 4:30 p.m. Elective high school credits, which may be applied toward graduation requirements at the discretion of the sending school district, are earned at the school through the study of dance, theater, musical theater, film/video production, and creative script writing. Through these departments, the courses provide a broad understanding of the history and criticism of the arts through interdisciplinary study. RCA's performing arts training program is designed to prepare students to pursue professional careers and post-secondary studies. The curriculum is professionally oriented, highly structured, and academically rigorous. Commitment to serious study is expected of all students. Course credit will be given in accordance with the policy of the local high school.

### **Who May Participate:**

Placements for the Regional Center for the Arts are open to interested high school students from the school districts that participate. Students must possess a strong desire to learn and must demonstrate above-average skill or potential in the arts.

### **How to Participate in RCA:**

Students interested in participating should complete an application and return it to the guidance department of their high school. Students should consult with their guidance counselor to obtain an application and inquire about the application deadline. Upon receipt of the application, each student will be assigned and notified of a specific placement meeting date and time. Students should see their counselors for placement procedures.

The Regional Center for the Arts courses do NOT fulfill the State's requirements for physical education. Norwalk Public Schools does not provide transportation.

**Stamford Regional Agriscience and Technology Center at Westhill High School (Stamford)** 203-977-4974  
<http://www.westhillweb.com/agriscience-program.aspx>

**The Agriscience and Technology Program** offers an opportunity for all in the lower Fairfield County region to explore the nation's largest commercial business – AGRICULTURE! Over 2,000 career areas in the growing agricultural industry from agrimarketing to zoology become available to the students enrolled in the program. Instruction in introductory level information, as well as more advanced technological skills, is provided. Classroom instruction, laboratory/field experience, guest speakers, leadership development through FFA, and career exploration are all areas offered through this broad program. After getting an overview of agriculture, students choose an area (or areas) of specialty during their last two years. This program follows the three-circle model of agricultural education, which includes classroom instruction, FFA, and SAE (Supervised Agricultural Experience). Students are required to participate in all three components of the program.

FFA, the nation's largest youth leadership organization, allows students to participate in local, district, state, and national career development events and leadership activities. SAEs provide students with agricultural experience outside of class time. Freshmen are required to complete 50 hours a year, while sophomores, juniors, and seniors are required to complete 200 hours. Students may choose the type or topic of SAEs based on their interests.

In summary, we are a college preparatory program that focuses on animal and plant related sciences (referred to as agriscience). Students graduate our program very well prepared for college and many times already have obtained credit for introductory college classes through our involvement in the UConn ECE program. In addition, students learn skills they can use in their post-college career pathway. Interest of our graduates includes horticulture, vet science, aquaculture, traditional farming, and floral design (to name a few). The competitive and intellectual advantage the students gain makes the agriscience program a good choice for any student wanting to study animal or plant related sciences.

With limited space available, all students interested in the Agriscience and Technology Program must fill out an application and may be interviewed. They will receive a letter in the mail informing them of the status of their application.

## References

"Home | Advance CTE." Home | Advance CTE, [careertech.org/](http://careertech.org/).

Partnership, Great Schools. "Sabbott, Author at The Glossary of Education Reform - Page 21 of 24." *The Glossary of Education Reform*, [www.edglossary.org/author/sabbott/page/21/](http://www.edglossary.org/author/sabbott/page/21/).

"What Makes Us #NCCproud." Welcome to NCC!, [norwalk.edu/](http://norwalk.edu/).

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