



**NEW LONDON**  
**PUBLIC SCHOOLS**

**High School**  
**Program of Studies**

Multi-Magnet Campus

2024-2025

20 Chester Street  
New London, 06320  
[nlhs.newlondon.org](http://nlhs.newlondon.org)



# GRADUATION REQUIREMENTS

Category	Subject	Graduating Classes 2026 or earlier	Graduating Class 2027 and after
		All Pathways (NLHS, AMHS, STMHS)	All Pathways (NLHS, AMHS, STMHS)
Humanities	English	4.0	4.0
	Social Studies	3.0 (including 1.0 in American History and 0.5 in Government)	3.0 (including 1.0 in American History and 0.5 in Government)
	Humanities Electives	2.0 (including 0.5 Fine Arts)	2.0 (including 0.5 Fine Arts & 0.5 Financial Literacy)
STEM (Science, Technology, Engineering, & Math)	Mathematics	4.0 (including 1.0 in Algebra I)	4.0 (including 1.0 in Algebra I)
	Science	3.0	3.0
	STEM Electives	2.0	2.0
World Language	World Language	1.0	1.0
Physical Education/Health	Physical Education	1.0	1.0
	Health	1.0	1.0
Mastery Based Diploma Assessment	Capstone	1.0	1.0
Electives	Additional Electives	3.0 (in addition to above)	3.0 (in addition to above)
TOTAL		25.0	25.0

# School Counselors



**Mrs. Jennifer Dziekan**

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Grade 9 - Last Name A-CH  
Grade 10 - Last Name A-COL  
Grade 11 - Last Name A-CL  
Grade 12 - Last Name A-CL



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Grade 11 - Last Name CM-HA  
Grade 12 - Last Name CM-HE



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Grade 11 - Last Name LP-PA  
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Grade 11 - Last Name PB-RO  
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Grade 10 - Last Name SAND-Z  
Grade 11 - Last Name RP-Z  
Grade 12 - Last Name SI-Z

**The School Counseling  
office is located  
on the first floor of the  
HS tower - Room 1111.**

**To make an appointment  
with your counselor, scan  
the below QR code:**



**Ms. Jennifer  
Occhionero**

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**Director of  
Counseling**

# **Bilingual and Multilingual Department**

## **High School Multilingual Learner Program**

### **High School (ESOL) English Speakers of Other Language Program**

It is the purpose of the New London High School English Speakers of other Languages (ESOL) Program to provide English language instruction to multilingual learners that will lead to proficiency in listening, speaking, reading, and writing skills. The goal of the ESOL program is to provide high quality instruction that will support student's language development towards proficiency and success in their mainstream courses. As determined by State and Federal mandates, students will exit the program when they meet the criteria. The program consists of three levels of ESOL instruction and Sheltered English content in the areas of mathematics, science, and social studies. ESOL Resource and/or bilingual tutors are provided as support to students taking classes in the mainstream.

## **Bilingual and/or Sheltered Content Instruction Program**

If an eligible student enrolls in a secondary school when the student has fewer than 30-months remaining before graduation, the school district will assign the student to an ESOL/Sheltered Content Instructional Program that will provide intensive services to enable the student to meet graduation requirements and speak, write, and comprehend English by graduation. Bilingual Education is offered to eligible students (with more than 30-months until graduation). The Bilingual Program at NLHS is designed to provide native language support, when necessary, within a Sheltered English Content classroom and supports provided by Bilingual Tutors. All other students (Spanish dominant, non-English proficient 10th, 11th, and 12th grade students and those 9th graders who have received 30-months of bilingual instruction) will be offered ESOL and Sheltered Content Instruction.

## **Criteria for Enrollment in Bilingual and ESOL Programs**

Upon registration, all students are interviewed using the Home Language Survey, and the result will determine if a language placement assessment is needed. Results from this initial language placement assessment will indicate student's eligibility for multilingual learner supports and placement into Bilingual program, one of the three levels of ESOL, Sheltered Content Instruction, ESOL Resource and /or bilingual tutor support.

## **Bilingual/Sheltered and ESOL Course Descriptions**

Sheltered and Bilingual Courses follow the curriculum of the regular program, while providing research-based sheltered instruction techniques. Students are recommended to classes using multiple data points including LAS Links scores. The goal of the sheltered courses is to teach academic content and the English language simultaneously providing for a smooth transition into the regular program. For more information on the individual classes, please see the course descriptions. The following Sheltered courses are offered to Multilingual Language Learners:

English I

English II

Composition/ Literary Analysis

English IV

Intro to Algebra I

Algebra I

Geometry

Algebra II

Integrated Science

Biology

Chemistry

World History

U.S. History

Government

## ESOL I

*(1.0 credit total)*

**Prerequisite:** Recommendation according to LAS Links Scores

**Credit Earned:** Elective

This course emphasizes the four skills of listening, reading, speaking, and writing the English language using a multi-cultural literature-based approach. ESL I is designed for newcomers who are identified as multilingual learners at the beginning stages of learning English. Curriculum is aligned to the English skills of Reading for Information and Response to Literature.

## ESOL II

*(1.0 credit total)*

**Prerequisite:** Recommendation according to LAS Links Scores and/or ESOL I

**Credit Earned:** Elective

This course continues to emphasize the four skills of listening, reading, speaking and writing the English language using a multi-cultural literature-based approach. There is an emphasis on oral and written language development in this course designed for emergent speakers of the English language. Curriculum is aligned to the English skills of Reading for Information and Response to Literature.

## ESOL III

*(1.0 credit total)*

**Prerequisite:** Recommendation according to LAS Links Scores and/or ESOL II

**Credit Earned:** Elective

This course includes vocabulary study, grammar, and writing through literature. There is an emphasis on figurative language, literary analysis, response to literary (written and oral), and a higher level of grammar. Students are also taught strategies such as the use of context clues, word parts, and Latin/Greek roots to help support further language learning.

## ESOL Resource

*(1.0 credit total)*

**Prerequisite:** Recommendation

**Credit Earned:** Elective

Students enrolled in ESOL Resource will be granted .5 credit toward graduation for one block semester enrollment. Students may receive credit for each year of enrollment to ESL Resource.

## Latinos In Action I

*(1.0 credit total, All Years)*

**Prerequisite:** None

**Credit Earned:** Elective

Latinos In Action (LIA) offers an asset-based approach to closing the opportunity and graduation gap for Latino students, it empowers our Latino youth to lead and strengthen their communities through college and career readiness. The class focuses on four pillars: leveraging personal assets and cultural, excel in education, serving the community and developing leadership and mentoring skills. Students enrolled in this class will also work on: Writing and Reading, Resume development, Speaking and Listening, Interpersonal skills, Presentations, Work Ethic/ Responsibility, Time management, Goal Setting, Problem solving, and Decision making.

## Latinos In Action II

*(1.0 credit Sophomore, Junior or Senior Year)*

**Prerequisite:** Latinos in Action

**Credit Earned:** Elective

Latino in Action II is a course for students in grades 10,11 & 12 who would like to continue developing their leadership skills while contributing to the school community through service projects. Latinos In Action (LIA) offers an asset-based approach to closing the opportunity and graduation gap for Latino students, it empowers our Latino youth to lead and strengthen their communities through college and career readiness. The class focuses on four pillars: leveraging personal assets and cultural, excel in education, serving the community and developing leadership and mentoring skills. Students enrolled in this class will also work on: Writing and Reading, Resume development, Speaking and Listening, Interpersonal skills, Presentations, Work Ethic/ Responsibility, Time management, Goal Setting, Problem solving, and Decision making.

# English Department

## English I

*(1.0 credit total, Freshman Year)*

**Prerequisite:** None

**Credit Earned:** English

This course emphasizes learning as a multi-dimensional construct; reading, writing, discussion, research and creative activities will help foster the sense that students can learn in many ways from a wide variety of sources and experiences. Students will practice utilizing reading strategies that will help them to become independent learners who are capable of monitoring and adjusting their own understanding. The presence of history and universal human experience in literature will be introduced in order to guide students to understand the purpose of writing and to facilitate connection with and engagement in any text. Writing instruction emphasizes effective sentence and paragraph structure, organization and clarity of ideas, and unity of purpose. The activities and assignments in English I will help to foster critical reading and writing skills that are essential in life and future academic coursework.

## Honors English I

*(1.0 credit total, Freshman Year)*

**Prerequisite:** None

**Credit Earned:** English

Honors English I is recommended for those students who have displayed the skills, ability and motivation to participate in an advanced course of study. This course emphasizes learning as a multi-dimensional construct; reading, writing, discussion and research help foster the sense that students can learn in many ways from a wide variety of sources and experiences. Students will practice utilizing reading strategies that will help them to become independent learners who are capable of monitoring and adjusting their own understanding. The presence of history and universal human experience in literature will be introduced in order to guide students to understand the purpose of writing and to facilitate connection with and engagement in any text. Writing instruction emphasizes effective sentences, paragraph, and essay structure, as well as organization and clarity of ideas, and unity of purpose. The activities and assignments in English I: Honors will help to foster critical reading and writing skills necessary for continued academic success.

## English II

*(1.0 credit total, Sophomore Year)*

**Prerequisite:** English I

**Credit Earned:** English

English II emphasizes the development of the skills that are essential to succeed in school and beyond: critical reading, effective writing, and sound communication skills. Throughout the year, students will learn to perform a comprehensive literary analysis in preparation for the SAT test, write well-developed compositions, conduct research and utilize valid source materials within their writing, and sharpen their oral communication skills. Written assignments will reinforce the principles of clarity, idea development, organization and sentence fluency. Texts studied include classic literature, short stories, poetry, drama, and nonfiction texts.

## Honors English II

*(1.0 credit total, Sophomore Year)*

**Prerequisite:** English I

**Credit Earned:** English

The English II Honors course is composed of students who have shown advanced language arts skills and who express an interest in intensive study of the English language. Throughout the year, students will learn to perform a comprehensive literary analysis in preparation for the SAT test, write well-developed expository and argument essays, conduct research and utilize valid source materials within their writing, and sharpen their oral communication skills. Written assignments will reinforce the principles of clarity, idea development, organization and sentence fluency. Texts studied include classic literature, short stories, poetry, drama, and nonfiction texts.

## Composition

*(0.5 credit total, Junior Year)*

**Prerequisites:** English I and English II

**Credit Earned:** English

This one semester course will emphasize the writing process and hone students' composition skills. With units focused on argumentative writing, informative writing and the college essay, students will have ample opportunity to compose smaller pieces, like paragraphs, and larger pieces, like essays. Students will engage with fiction and non-fiction texts for the purposes of research, response, and analysis. Students will also practice usage, diction, mechanics, and sentence construction.

## Honors Composition

*(0.5 credit total, Junior Year)*

**Prerequisites:** English I and English II

**Credit Earned:** English

Honors Composition is recommended for students who have displayed the skills, ability and motivation to participate in an advanced course of study. This one semester course will emphasize the writing process and hone students' composition skills. With units focused on argumentative writing, informative writing and the college essay, students will have ample opportunity to compose smaller pieces, like paragraphs, and larger pieces, like essays. Students will engage with fiction and non-fiction texts for the purposes of research, response, and analysis. Students will also practice usage, diction, mechanics, and sentence construction. Students will gain mastery over rhetorical devices in crafting argumentative pieces a key component of the SAT.

## Literary Analysis

*(0.5 credit total, Junior Year)*

**Prerequisites:** English I and II

**Credit Earned:** English

This one semester course will focus on American Literature that reflects the diversity of our nation. Students will examine the context, analyze the style, and determine the purpose of contemporary and classic texts. Throughout the course, students will increase their speaking and listening skills through frequent class discussion and oral presentations. Skills to be taught include but are not limited to point of view, theme development, and author's choice.

## Honors Literary Analysis

*(0.5 credit total, Junior Year)*

**Prerequisites:** English I and English II

**Credit Earned:** English

Honors Literary Analysis is recommended for students who have displayed the skills, ability and motivation to participate in an advanced course of study. This one semester course will focus on American Literature that reflects the diversity of our nation. Students will examine the context, analyze the style, and determine the purpose of contemporary and classic texts. Throughout the course, students will increase their speaking and listening skills through frequent class discussion and oral presentations. Skills to be taught include but are not limited to point of view, theme development, and author's choice.

## AP English Literature and Composition

*(1.0 credit total, Senior Year – starting with the 2025-2026 school year)*

**Prerequisite:** English I, English II & English III

**Credit Earned:** English

The AP English Literature and Composition course includes an intensive study of representative works that require careful, deliberative reading that yields multiple meanings from British, American, and World writers written in several genres from the sixteenth century to contemporary times. The course includes frequent opportunities for students to write and rewrite formal, extended analyses and timed responses. Students write to understand (informal, exploratory), to explain (expository, analytical), and to evaluate (analytical, argumentative). This course is designed for motivated students who have a desire to challenge themselves and potentially gain college credit after the successful completion of the AP examination.

## English IV

*(1.0 credit total, Senior Year)*

**Prerequisite:** Literary Analysis and Composition

**Credit Earned:** English

This course will emphasize personal narrative writing and works of contemporary literature. Every student is expected to learn and apply writing process techniques during the composition of at least two formal papers, including a personal narrative and a literary analysis of the student's design. In studying literature students will analyze major literary devices and write opinion essays on relevant contemporary issues. Students in this course will also study how their vocabulary choices impact their understanding of texts as well as other's perceptions of them. This course seeks to prepare all students for life beyond high school.



## AP English Language and Composition

*(1.0 credit total, Junior and Senior Year – for the 2024-2025 school year only)*

**Prerequisite:** English I & English II (for juniors) and English I, II & AP Literature and Composition or Literary Analysis and Composition or equivalent (for seniors)

**Credit Earned:** English

The AP English Language and Composition course provides an opportunity for students to develop fluency and voice in expository, analytical, and argumentative writing and critical reading based on a wide variety of prose styles and genres. This challenging, writing-intensive course is designed for motivated students who want to refine their skills in reading, analysis, argument, synthesis, and composition in preparation for college and the AP examination. This course is designed for motivated students who have a desire to challenge themselves and potentially gain college credit after the successful completion of the AP examination.

## UConn ECE English IV

*(1.0 credit total, Senior Year)*

**Prerequisite:** English I, English II, and AP English Literature or Composition & Literary Analysis or equivalent and teacher recommendation

**Credit Earned:** English

The University of Connecticut Early College Experience (UConn ECE 1007) is an opportunity for advanced Seniors to experience a university class while still in high school. The course is inquiry-based, focusing on the student's interaction with a variety of texts. Students are expected to read challenging texts and respond in a variety of multi-modal ways. This course rewards the process of the exploration of ideas as much as the product produced by this. ECE English 1007 strives to move into the next level of a student's academic journey through the development of creatively intellectual inquiries and a sustained engagement with texts, ideas, and problems. Our emphasis is on transfer of writing and rhetorical skills to academic and daily life. It is assumed the student has previously mastered the skills to read challenging texts, conduct a rhetorical analysis, and respond using academic argument. Successful completion of this course will yield 4 University English Credits.

## Technical Writing

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** Prior completion of 2.0 English credits

**Credit Earned:** Humanities

This course includes skills in verbal and written communication that students will need to be successful in the workplace. Technical documents are precise, concise, organized, and based on complex information. The purpose and target audience of each document determine the style that an author chooses, including layout, vocabulary, sentence and paragraph structure, and visuals, among other factors. Students will demonstrate proficiency in writing and presenting skills by producing a variety of technical writing products, including formal research reports, formal presentations, and workplace writing (e.g., technical reports, manuals, explanations of how to understand or use a product or service, proposals, memoranda, cover letters).

## Children's Literature

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** Prior completion of 2.0 English credits

**Credit Earned:** Humanities

Students will analyze a variety of genres, such as fairy tales, picture books, and novels, and investigate the interrelationship of literary content and form. Students will explore issues such as censorship, the environment, adolescent challenges, social justice, equity, cultural diversity, and identity. Students will reflect critically on literature, evaluate and acknowledge the possibilities and limitations of the authors' worldviews, and construct arguments about the texts using evidence from primary and secondary sources.

## Creative Writing

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** Prior completion of 2.0 English credits

**Credit Earned:** Humanities

Creative Writing is for all levels of Juniors and Seniors and will focus on the basics of the short story and poem. Students will spend time analyzing the essential structural and dramatic elements making up the short story or poem and spend considerable time on low-stakes writing assignments as well as keeping personal journals. Students will be sharing their original work with the class and a good deal of effort will be put into creating a safe and productive atmosphere inside the classroom. Students will be expected to read and respond to examples of short fiction and poetry as well as complete several major, focused projects in the course of the semester. Second semester will focus on taking the basic writing skills developed in first semester and bringing them up to publishable standards. Students will focus on reading and discussing a far-reaching and diverse array of published work and completing poetry and playwriting assignments designed to push a student past their previous experience in personal writing. Editing and revising will be a major focus of this class.

## Public Speaking

*(0.5 credit, Senior Year)*

**Prerequisite:** Prior completion of 3.0 English credits

**Credit Earned:** Humanities

This public speaking course stresses the use of informational research, personal experience, and opinion to create and present speeches relevant to audience, purpose, and content. In doing so, students will have multiple opportunities to write, present and grade speeches in a safe and controlled environment. This class will stress class participation, online research, and the non-verbal communication skills relevant to public speaking today.

## Drama in Literature & Communication Arts and Sciences (not running 24-25 )

*(1.0 credit total, Senior Year)*

**Prerequisite:** Prior completion of 3.0 English credits

**Credit Earned:** Humanities

Students gain an understanding of dramatic and comedic theater through the study of British, American, and World plays. As students read, interpret, analyze, and evaluate classical and modern texts, basic techniques of acting are practiced, including characterization and scene study, which leads to the preparation and presentation of monologues, scenes and plays. The CAS aspect of this course provides practical instruction, relevant activities, and formal assignments designed to help students learn the skills of effective communication and presentation. Through oral activities, a process journal, oral critiquing, and formal written critiques, students learn how to use their voice and body effectively. Students acquire communication skills that empower them by providing them with an appropriate and impressive manner of expression with and beyond the written word.

## Reading Lab

*(1.0 credit total, Freshman/Sophomore Years)*

**Prerequisite:** Department Coordinator's recommendation

**Credit Earned:** Elective

The primary objective of this course is to increase reading proficiency by remediating targeted areas within phonics, fluency, vocabulary, and comprehension. Assessments are used to identify students' strengths and areas of need. Student growth is progress monitored bi-weekly. Student learning will focus on reading skills and strategies with a stronger focus on phonological awareness skills.

# **Mathematics**

## **Intro to Algebra 1**

*(1.0 credit total, Freshman Year)*

**Prerequisite: None**

**Credit Earned: Math/STEM**

Intro to Algebra 1 is a full-year course designed for students who have completed middle school mathematics but are not ready for the full high school Algebra. The Intro to Algebra 1 course focuses on developing fluency with number operations and proportional relationships. Students will strengthen their procedural skills and fluency needed to be successful for a formal high school Algebra course study and beyond. Students are required to explain the concepts and justify their answers mathematically or verbally.

## **Algebra 1**

*(1.0 credit total, Freshman/Sophomore Years)*

**Prerequisite: None/Intro to Algebra I if required**

**Credit Earned: Math/STEM**

Algebra 1 is the prerequisite for all high school courses in mathematics. The purpose of this course is to provide a solid mathematical knowledge base for all students no matter what they decide to do in their future. The main goal of Algebra 1 is to develop fluency in working with linear equations and functions. Students will extend their experiences with tables, graphs, and equations and solve linear equations and inequalities. Students will apply mathematical skills and make meaningful connections to life's experiences. Algebra 1 provides students with a solid foundation in the practical and theoretical applications of general statistics, linear systems, exponents, and radicals. Reasoning algebraically is essential to the study of other domains of mathematics, including geometry, measurement, probability, and data analysis.

## **Honors Algebra I**

*(1.0 credit total, Freshman Year)*

**Prerequisite: None**

**Credit Earned: Math/STEM**

Algebra 1 Honors is an accelerated Algebra course for those students who are highly motivated and have a strong aptitude for mathematics. The purpose of this course is to provide a solid mathematical knowledge base for all students who will be taking AP Calculus or AP Statistics their senior year. Students will explore different forms of linear equations & functions and use the appropriate models for meaningful situations. Students will use technology and models to investigate and explore mathematical ideas and relationships and develop multiple strategies for analyzing complex situations. Students will analyze situations verbally, numerically, graphically, and symbolically. Students will apply mathematical skills and make meaningful connections to life's experiences. This course will provide students with a solid foundation in the practical and theoretical applications of general statistics, linear systems, exponents, radicals, and functions. Reasoning algebraically is essential to the study of other domains of mathematics, including geometry, measurement, probability, and data analysis.

## **Geometry**

*(1.0 credit total, Freshman, Sophomore, Junior Years)*

**Prerequisite: Algebra I or Honors Algebra I**

**Credit Earned: Math/STEM**

The main purpose of Geometry is to help students to develop a perspective on the connection between algebraic concepts and geometric concepts. This course builds the foundation for future geometric principles. This course will connect geometry to the real world and show why it is important. It will use logic, analysis, application, and interpretation to find the solution of multi-step problems. This course will build mathematical vocabulary and improve communication of mathematical thoughts and reasoning. Students will develop problem solving and critical thinking skills as they study topics such as triangles, quadrilaterals, and three-dimensional shapes. Students will also develop problem solving skills by using length, perimeter, area, circumference, surface area, and volume to solve meaningful situations. Students will apply the Pythagorean Theorem and other geometric principles to solve real life problems. Students will be able to translate real life situations to mathematical models. They will use algebraic formulas and calculations to solve these geometric real-world problems. Also, students will be given the opportunity to use technology to explore geometric relationships. This course will also cover topics such as congruence and similarity, and apply properties of lines, angles, and circles. Students will also refine inductive and deductive reasoning skills to explore several aspects of geometry. Students will explore congruent and similar polygons and their uses in the real world.

## Honors Geometry

*(1.0 credit total, Freshman, Sophomore, Junior Years)*

**Prerequisite:** Algebra I or Honors Algebra I

**Credit Earned:** Math/STEM

Geometry Honors (A) is designed as the next course after acquiring the algebraic skills necessary to complement geometric concepts. This course is intended for students who are highly self-motivated and have a sound mathematical background. This is a rigorous course in the development of the geometric principles. Students will also explore properties of two-dimensional mathematics including lines, triangles, and measurement of length, area, and volume. It will use logic, analysis, application, and interpretation to find the solution of multi-step problems. This course will build mathematical vocabulary and improve communication of mathematical thoughts and reasoning. Students will develop problem solving and critical thinking skills as they study topics such as triangles, quadrilaterals, and three-dimensional shapes. Students will apply the Pythagorean Theorem and other geometric principles to solve real life problems. Students will be introduced to logical reasoning through mathematical proofs using geometric postulates and theorems. Students will be able to translate real life situations to mathematical models. They will use algebraic formulas and calculations to solve these geometric real-world problems. Also, students will be given the opportunity to use technology to explore geometric relationships.

## Algebra II

*(1.0 credit total, Sophomore or Junior Year)*

**Prerequisite:** Algebra I or Honors Algebra I and Geometry or Geometry Honors or concurrently with Geometry

**Credit Earned:** Math or STEM

Algebra II is the prerequisite for all college level courses in mathematics. The purpose of this course is to provide a solid mathematical knowledge base for all students no matter what they decide to do in their future. This course will provide students with a solid foundation in the practical and theoretical applications of polynomials, matrices, and functions. It will teach skills such as solving quadratic equations, analyzing growth and change, and algebraic problem-solving. The primary goal of Algebra II is for students to conceptualize, analyze, and identify relationships among functions. This course builds on concepts learned in Algebra 1 and Geometry by extending linear algebra and coordinate geometry concepts to other functions and systems of equations. Students will develop proficiency in analyzing and solving quadratic functions using complex numbers. Students will investigate and make conjectures about linear, quadratic, absolute value, and square root function families algebraically, numerically, and graphically, with and without a graphing calculator. Students will apply mathematical skills and make meaningful connections to life's experiences.

## Honors Algebra II

*(1.0 credit total, Sophomore and Junior Years)*

**Prerequisite:** Algebra I or Honors Algebra I, Honors Geometry or concurrently with Geometry

**Credit Earned:** Math/STEM

Honors Algebra II is an accelerated Algebra II course for those students who are highly motivated and have a strong aptitude for mathematics. Honors Algebra II Honors is the prerequisite for all college level courses in mathematics. The purpose of this course is to provide a solid mathematical knowledge base for all students no matter what they decide to do in their future. This course will provide students with a strong foundation in the practical and theoretical applications of polynomials, matrices, and functions. It will teach skills such as solving quadratic equations, analyzing growth and change, and algebraic problem-solving. A primary goal of Algebra II is for students to conceptualize, analyze, and identify relationships among functions. This course builds on concepts learned in Algebra 1 and Geometry by extending linear algebra and coordinate geometry concepts to other functions and systems of equations. Students will develop proficiency in analyzing and solving quadratic functions using complex numbers. Students will investigate and make conjectures about linear, quadratic, absolute value, and square root function families algebraically, numerically, and graphically, with and without a graphing calculator. The second half of the course will emphasize the content strand, Algebraic Reasoning: Patterns & Functions, rational exponents, complex numbers, radical, exponential, logarithmic, and rational functions.

## Trigonometry

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** Algebra I, Geometry, and Algebra II

**Credit Earned:** Math/STEM

This semester course is intended for the college prep student and includes an overall study of trigonometry. The topics of trigonometry will include the unit circle, solving triangles, the law of sines and cosines, trigonometric identities, trigonometric ratios and functions, and trigonometric graphs. This course is specifically designed to help students learn to think mathematically and to develop problem-solving skills using trigonometry. They will make the connection of the usefulness of trigonometry in real-life situations. Technology will be used throughout the semester.

## College Math

*(.5 credit, Junior/Senior Years)*

**Prerequisite:** Algebra I, Geometry and Algebra II

**Credit Earned:** Math/STEM

This semester course is part one of the regular Pre-Calculus course, not including Trigonometry. Students in this class can take Trigonometry as part two separately or another semester course. This course will include an in-depth study of each of the basic functions: polynomial exponential, and logarithmic, the behavior of graphs. Students will expand their knowledge of quadratic, exponential, and logarithmic functions including the study of the end-behavior of their graphs. Technology will be used throughout this course. Students are expected to work collaboratively or in groups.

## Statistics

*(.5 credit, Junior/Senior Year)*

**Prerequisite:** Algebra I, Geometry and Algebra II

**Credit Earned:** Math/STEM

This course provides an introductory study of statistics covering major topics such as data analysis, probability, experimental design, and statistical inference. Students will develop skills in creating and interpreting data displays, comparing and making observations about populations, understanding of probability and statistical data collection methods. The course is designed to help students increase their problem-solving skills and their understanding of the concepts and techniques of statistics in real-life contexts such as advertising, business, biology, economics, health sciences, psychology, and the social sciences. Students are expected to work collaboratively or in groups.

## Precalculus

*(1 credit, Junior/Senior Years)*

**Prerequisite:** Algebra I, Geometry, and Algebra II

**Credit Earned:** Math/STEM

This semester course is intended for serious mathematics students as preparation for the study of Calculus. This course will include an in- depth study of each of the basic class of functions: polynomial, rational, exponential, and logarithmic, the behavior of graphs, sequences and series, limits and their properties, differentiation, and their applications. Students will progress from skill development to more rigorous problems involving applications and proofs. Technology will be used throughout the semester.

## Honors Precalculus

*(1 credit, Junior/Senior Years)*

**Prerequisite:** Algebra 1, Geometry, and Algebra II

**Credit Earned:** Math/STEM

Pre-Calculus Honors is intended for the advanced college prep student who is highly motivated and possesses a strong aptitude for mathematics. This semester course is intended for serious mathematics students as preparation for the study of Calculus. This course will include an in-depth study of each of the basic class of functions: polynomial, rational, exponential, and logarithmic, the behavior of graphs, sequences and series, limits and their properties, differentiation, and their applications. Students will progress from skill development to more rigorous problems involving applications and proofs. Technology will be used throughout the semester.

## ECSU AP Calculus I

*(1.0 high school credit, 4.0 college credits from ECSU, Junior or Senior Year)*

**Prerequisite:** Precalculus or Honors Precalculus I

**Credit Earned:** Math/STEM

AP/ECSU Calculus is the culmination of all students' mathematical studies and the beginning of their studies of mathematics as it applies to the world around us. Calculus is the mathematics of motion and change. It is the transition from discrete applications to those that are continuous. Logical rigor is stressed, and students need to be able to be open to a new mathematical maturity in their thinking process. The topics of AP Calculus will include the study of functions, graphs, limits, and derivatives, as well as interpretations and properties of definite integrals, applications of integrals, the Fundamental Theorem of Calculus, techniques of antiderivatives and its applications, and Riemann properties. The primary objective of this course is to enhance students' mathematical skills so that they both understand and are conversant in the language of Calculus. At the end of the course, the student should be able to express him/herself and interpret mathematics in a variety of ways: visually, numerically, analytically, and verbally. A variety of performance tasks will be given to help students strengthen their conceptual understanding and sharpen their problem-solving skills. This course is designed to be both challenging and demanding.

## UConn ECE/AP Calculus I (Fall Semester)

## UConn ECE/AP Calculus II (Spring Semester)

*(2.0 credits; 8 college credits, Senior Year)*

**Prerequisite:** Precalculus or Precalculus Honors

**Credit Earned:** Math/STEM

This two-period course is designed to provide students with a learning experience equivalent to two semesters of college level calculus (8 credits). Topics include all AB Calculus topics as well as parametric, polar, and vector functions; applications of integrals; polynomial approximations and series including series of constants and Taylor series. Classroom activity will involve use of the TI-89 graphing calculator. Students will be expected to take and pass the ECE UConn Calculus 1 Exam in January, the AP Calculus BC Exam in May and the ECE UConn Calculus 2 Exam in June.

## ECSU Math for Liberal Arts

*(1.0 high school credit, and 4.0 college credits from ECSU, Senior Year)*

**Prerequisite:** Algebra I, Geometry, and Algebra II

**Credit Earned:** Math/STEM

This is a full year course. Mathematics applied to solving practical problems in a variety of disciplines, enhanced by algebraic content and technology skills. Mathematical topics include but are not limited to voting theory, financial mathematics, linear programming, identification numbers, and statistics. This course is for students who do not intend to pursue careers in science, technology, or mathematics (STEM fields). The algebra content is designed to prepare non-STEM students with the mathematics background needed for this course and other college-level courses with quantitative components. In addition, the algebra content will provide much needed review for college-bound students who are required to take mathematics placement exams.

## SCSU College Algebra

*(1.0 high school credit, and college credits from SCSU, Senior Year)*

**Prerequisite:** Algebra I, Geometry, and Algebra II

**Credit Earned:** Math/STEM

This is a full year class covering algebraic problem solving and quantitative reasoning skills needed for business and social science majors; equations and inequalities in one variable; linear, quadratic, exponential, and logarithmic functions; systems of linear equations in two variables. It is important for you to know that you must commit to college-like work in this class.

## Math Lab

*(0.5 credit per semester, Freshman/Sophomore Years)*

**Prerequisite:** iReady Scores, SBA Scores, 8<sup>th</sup> & 9<sup>th</sup> Grade Teacher Recommendation, and 8<sup>th</sup> & 9<sup>th</sup> Grade Unit Assessments

These courses are intended for ninth or tenth grade students who require a more comprehensive background in mathematical computational skills as they are related to real-life applications. The focus of these courses will be on critical problem-solving strategies using numerical, algebraic, geometric, and statistical principles. The course content is aligned with the standards of the CT State Mathematics Frameworks.

## Math Enrichment

*(1 credit per semester, Freshman Year)*

**Prerequisite:** iReady Scores, SBAC Scores, 8<sup>th</sup> Grade Teacher Recommendation, and 8<sup>th</sup> Grade Unit Assessments

These courses are intended for ninth grade students who require a more comprehensive background in mathematical computational skills as they are related to real-life applications. The focus of these courses will be on critical problem-solving strategies using numerical, algebraic, geometric and statistical principles. The course content is aligned with the standards of the CT State Mathematics Frameworks.

# Physical Education and Health

## Freshman Physical Education

*(0.5 credit, Freshman Year)*

**Required for all freshman and sophomore students. 1 full credit needed for graduation**

**Credit Earned: PE**

Introduction to Physical Education is a .5 credit course required for graduation. As a department, we emphasize teamwork, sportsmanship, and an understanding of lifelong activities. The department's mission is to promote physical fitness and develop interests and skills in activities that can be used throughout a lifetime. The program offers a wide variety of team and individual sports as well as activities designed to increase physical fitness through training for the Connecticut Physical Fitness Assessment.

## Sophomore Physical Education

*(0.5 credit, Sophomore Year)*

**Required for all freshman and sophomore students. 1 full credit needed for graduation**

**Credit Earned: PE**

This class meets for one semester and is an extension of the Freshman Physical Education class. The focus is on fitness and various sports will be covered in more depth.

## Safety and Wellness

*(0.5 credit, Freshman year)*

**Required for all freshman and sophomore students. 1 full credit needed for graduation**

**Credit Earned: Health**

This comprehensive health education course is designed to provide students with a deep understanding of substance abuse and addiction, focusing on various substances such as alcohol, nicotine, and drugs. The course aims to equip students with the knowledge and skills necessary to make informed decisions regarding their own health and well-being, as well as to develop empathy and support for those affected by substance abuse disorders.

## Personal Health

*(0.5 credit, Sophomore year)*

**Required for all freshman and sophomore students. 1 full credit needed for graduation**

**Credit Earned: Health**

This engaging and comprehensive health education course is designed to empower students with the knowledge and skills necessary to make informed decisions that positively impact their personal health and well-being. The curriculum covers various aspects of personal health, including nutrition, fitness, human reproduction, sexual health, and more. Through interactive lessons, discussions, and practical activities, students will gain the tools needed to lead a healthy and fulfilling lifestyle.

## Leisure Games

*(0.5 credit, Junior or Senior Year who have earned a full credit of PE)*

**Credit Earned: Elective**

The Leisure Games Exploration course is designed to introduce participants to recreational games that foster social engagement, physical activity, and strategic thinking. Through hands-on experiences and interactive sessions, students will gain proficiency in playing popular leisure games like cornhole, Kan Jam, bocce, and ladder ball.

Participants will delve into the rules, techniques, strategies, and etiquette of each game, developing both individual skills and teamwork. Emphasis will be placed on fostering a welcoming and inclusive environment where participants of all skill levels can enjoy these games.

The course will cover the following key areas:

1. Introduction to Leisure Games: Understanding the rules, and equipment of cornhole, Kan Jam, bocce, ladder ball, and more.
2. Skill Development: Practicing and honing individual skills required for each game, including throwing, aiming, strategizing, and teamwork.
3. Game Strategies: Exploring various tactics, strategies, and approaches to excel in these leisure games.
4. Sportsmanship and Etiquette: Emphasizing fair play, good sportsmanship, and respectful conduct while engaging in competitive gameplay.
5. Social Engagement: Encouraging teamwork, communication, and camaraderie among participants.

The course will involve a combination of practical sessions, theoretical discussions, and friendly gameplay to ensure a well-rounded understanding of these leisure games. Additionally, students will have the opportunity to organize and participate in friendly tournaments to apply their newly acquired skills. By the end of this course, participants will have gained a comprehensive understanding and appreciation for these popular leisure games, enabling them to confidently engage in these activities in various social settings.

## Net Games

*(0.5 credit, Junior or Senior Year who have earned a full credit of PE)*

**Credit Earned: Elective**

Join us for an energetic and interactive exploration in net games! Whether you are a seasoned athlete or new to these sports, you will develop sportsmanship and social skills that will support you in becoming lifelong net game players. Sports such as tennis, pickleball, badminton, volleyball, Spikeball, and table tennis will be played.

## Invasion Games

*(0.5 credit, Junior, or Senior Year)*

**Prerequisite: Have earned 1 PE credit**

**Credit Earned: Elective**

In this course, students will immerse themselves in the world of invasion games, mastering the skills and strategies essential for success in units such as flag football, soccer, and basketball, among others. This course is designed to provide a comprehensive understanding of the unique dynamics of these team sports, emphasizing individual skill development, tactical/strategical awareness, and collaborative teamwork through the student-led sport ed model.

## Team Sports Games

*(0.5 credit, Junior or Senior Year )*

**Prerequisite: Have earned 1 PE credit**

**Credit Earned: Elective**

The purpose of this course is to develop the physical, cognitive, and affective skills necessary to be competent in many forms of movement, knowledge of team sports concepts such as offensive and defensive strategies and tactics, and appropriate social behaviors within a team or group setting. The integration of fitness concepts throughout the content is critical to the success of this course. We will be introducing a sport education model for each unit.

Units include Volleyball, Softball, Soccer/Futbol, Ultimate Frisbee, Flag/Touch Football, Team Handball & Basketball

## Resistance Training and Conditioning

*(0.5 credit, Junior or Senior Year who have earned a full credit of PE)*

**Prerequisite: Have earned 1 PE credit**

**Credit Earned: Elective**

This introductory course emphasizes the development of effective weight training and proper lifting techniques. This course includes the concepts of physical education and the development of personal fitness.



# Science

## Integrated Science

*(1.0 credit total, Freshman Year)*

**Prerequisite: None**

**Credit Earned: Science/STEM**

Integrated Science will be based on the Next Generation Science Standards (NGSS) for high school Earth and Space Science (HS-ESS-1 thru 3). This course will have a variety of learning experiences including discussion, extensive hands-on labs, and other projects the disciplinary core ideas (DCIs), Cross-cutting concepts (CCCs), and Science and Engineering Practices will be emphasized. This course is part of the MYP program; students inquire into a wide range of issues and ideas of global significance in order to promote an understanding of human experience across cultures.

## Honors Integrated Science

*(1.0 credit total, Freshman Year)*

**Prerequisite: None**

**Credit Earned: Science/STEM**

Honors Integrated Science will be a challenging course, designed for those students whose records show high aptitude and performance in previous academic work in mathematics and science. The course will be based on the Next Generation Science Standards (NGSS) for high school, Earth and Space Science (HS-ESS-1 thru 3). This course will have a variety of learning experiences including discussion, extensive hands-on labs, and activities. Assignments that demonstrate the connections between the disciplinary core ideas (DCIs), Cross-cutting concepts (CCCs), and Science and Engineering Practices will be emphasized. This course is part of the MYP program; students inquire into a wide range of issues and ideas of global significance in order to promote an understanding of human experience across cultures.

## Biology

*(1.0 credit total, Sophomore Year)*

**Prerequisite: Integrated Science**

**Credit Earned: Science/STEM**

This Biology course is intended for tenth grade students to investigate high school life science concepts in ecosystems interactions and energy; evidence of evolution; chemical and cellular processes; biotechnology, genetics; and growth from cell to human biology. This course is aligned with the Next Generation Science Standards (NGSS) to help students prepare for this important test taken during their junior year. Students will build on prior knowledge to develop mathematical models and effectively communicate how living systems maintain stability.

## Honors Biology

*(1.0 credit total, Sophomore Year)*

**Prerequisite: Integrated Science**

**Credit Earned: Science/STEM**

This advanced biology course for tenth grade students to investigate high school life science concepts in ecosystems interactions and energy; evidence of evolution; chemical and cellular processes; biotechnology, genetics; and growth from cell to human biology. This course is aligned with the Next Generation Science Standards (NGSS) to help students prepare for this important test taken during their junior year.

Students will build on prior knowledge to develop mathematical models and effectively communicate how living systems maintain stability.

## Chemistry

*(1.0 credit total, Junior/Senior Years)*

**Prerequisite: Biology, or Honors Biology, Algebra II or can be taken concurrently with Algebra II**

**Credit Earned: Science/STEM**

This course is primarily concerned with the principles and theories of chemistry to lead the student to understand the nature of matter and the chemical changes it undergoes. Students independently and collaboratively will be able to understand and apply basic concepts, principles, and theories of chemistry. Students will be expected to identify and solve problems through scientific exploration, including the formulation of hypothesis, design of experiments, use of technology, analysis of data and drawing of conclusions. This will involve properly selecting and using appropriate laboratory technology, equipment, and materials in addition to applying the correct procedures and mathematical operations to calculate, analyze and present scientific data and ideas. Through inquiry, data analysis and interpretation skills, students will gain a greater understanding of chemistry and the role science plays in existing and emerging technologies which affect society and our quality of life. Topics such as matter and atomic structure, arrangement of electrons in atoms, the periodic law, chemical bonding will be presented, and encompasses chemical formulas and chemical compounds, chemical equations and reactions, stoichiometry, gas laws, solutions, and reaction rates.

## Honors Chemistry

*(1.0 credit total, Junior/Senior Years)*

**Prerequisite:** Biology or Honors Biology and Algebra II or can be taken concurrently with Algebra II

**Credit Earned:** Science/STEM

This introductory chemistry course is designed for students interested in pursuing a career related to science, whether that science is biology, chemistry, engineering, geology, physics, or related subjects. The assumption is that students electing this course will have a basic algebra and honors levels science foundation. This course provides a broad overview of the principles of chemistry and the reactivity of chemical compounds. It presents chemistry as a field that not only has a lively history, but also one that is currently dynamic, with important new developments always on the horizon. Efforts are made to provide insight into the chemical aspect of the world around us and to give students the tools needed to function as chemically literate citizens. Topics include the following: matter, energy, and change, measurements and solving problems, atoms: building blocks of matter, arrangement of electrons in atoms, the periodic law, chemical bonding, chemical formulas and chemical compounds, chemical equations and reactions, stoichiometry, properties of gases, solutions, reaction rates and organic chemistry.

## Earth Science

*(0.5 credit total, Junior & Senior Years)*

**Prerequisite:** Integrated Science and Biology

**Credit Earned:** Science/STEM or Elective

Earth and Space Science focuses on the structure and development of the Earth and its environment over time including the formation of the universe and Earth's place in space. The course is composed of segments from Geology and Astronomy. It is taught in an investigative manner using hands-on laboratory experiences to support instruction.

## Marine Science

*(.5 credit total, Junior & Senior Years)*

**Prerequisite:** Integrated Science & Biology

**Credit Earned:** Science/STEM or Elective

Marine Science is designed as an introduction to key marine science concepts and ideas. It will present students with an exploration of marine organisms, marine ecosystems, and the ecological relationships between them. The topics will raise awareness of the physical, chemical, and geological aspects of oceanography, marine biology, the coastal environment and equip learners with a thorough understanding to think about ways to conserve and sustain the ocean for the future.

## Human Anatomy & Physiology

*(1.0 credit total, Junior/Senior Years)*

**Prerequisite:** Integrated Science, Biology and Chemistry

**Credit Earned:** Science/STEM or Elective

Human Anatomy & Physiology is an advanced course for students who wish more detailed explanations of the anatomy and function of the human body beyond that covered in previous science courses. Lectures will emphasize the organization, function, and pathology for each body system. Knowledge of chemistry is helpful but not required. This course is recommended for students who plan to pursue a career in health-related fields.

## ECSU Anatomy & Physiology

*(1 credit total, Junior/Senior Years)*

**Prerequisite:** Biology and Chemistry, this is a full year course for ECSU credits. Department Chair approval required.

**Credit Earned:** Science/STEM or Elective

Human Physiology is an advanced course for students who wish more detailed explanations of the anatomy and function of the human body beyond that covered in previous science courses. Lectures will emphasize the organization, function, and pathology of each body system. Knowledge of chemistry is helpful but not required. This course is recommended for students who plan to pursue a career in health-related fields. You are undertaking a tremendous responsibility by signing up for the ECSU Anatomy & Physiology course. It is important for you to know that you must commit to college-like work in this class.

## Environmental Science

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** Integrated Science and Biology or Honors Biology

**Credit Earned:** Science/STEM or Elective

The focus for this course is to introduce students to various issues in environmental science. Topics will include ecosystems and ecosystem structure; relationships in ecosystems, succession, stability in eco systems, biomes, and energy, land use, water and water pollution, air and noise pollution, habitat destruction and endangered species.

## Forensic Science

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** Integrated Science and Biology or Honors Biology

**Credit Earned:** Science/STEM or Elective

Students will engage in an activity-based course on the science crime scene investigation. Students will investigate and evaluate different crime scenes and reconstruct the crime. Each student will be a forensic specialist within a team and will work the case according to their role. Evidence will be collected, and conclusions will be drawn. Each team will present its own version of the events that led up to the crime based on collected evidence. The teams will walk the class through the crime scene step by step and reenact the events. The different jobs of forensic scientists, crime scene reconstruction, autopsy, fingerprints, hair analysis, fiber analysis, document analysis with handwriting characters and comparisons, chromatography, and tool markings and impressions will also be studied.

## Honors Physics

*(1.0 credit total, Senior Years)*

**Prerequisite:** Algebra II and Chemistry

**Credit Earned:** Science/STEM or Elective

This rigorous course presents a conceptual, algebra-based approach to physics studying in mechanics, including velocity, acceleration, vectors, universal gravitation, and Newton's Laws. Time is spent developing a conceptual understanding of physics using mathematical theory, hands-on and Internet activities. Key concepts are reinforced with problem solving activities, critical thinking exercises, computer simulations, and related laboratory work. The 2nd semester continues a conceptual, algebra-based approach to physics studying momentum, conservation of momentum and energy, electricity, wave phenomena and optics. Knowing physics will help you understand a lot about the world you live in.

## Astronomy

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** Integrated Science and Biology

**Credit Earned:** Science/STEM or Elective

In this course, students will examine and compare the properties and motion of astronomical bodies and the relationships between objects in the universe. The origins and ongoing processes of the universe and its components will be discussed. Topics include the universe, galaxies and stars, the solar system, the Sun as a star, the Earth/Moon system, the history of astronomy, and space travel. Students will organize and analyze data, interpret graphs and diagrams, and read and respond to various texts.

## UConn ECE Principles Biology I and II

*(1 credit total, Senior Year)*

**Prerequisite:** Biology and Chemistry

**Credit Earned:** Science, STEM or Elective

This is an Early College Experience (ECE)/University of Connecticut course in Biology. ECE Biology establishes a foundation of more advanced courses in biology and related sciences at the undergraduate level. Topics include molecular and cellular biology; genetics; ecology; evolution; and the diversity, structure, and functions of organisms. There is a large laboratory component to the course as well.

This course is taken in two parts. Biology I is semester 1 and Biology II is semester 2.

**Students who elect this course should be willing to accept the rigorous demands placed upon them by a college level course. Students earn credit from the University of Connecticut based on successful completion of the course with a grade of 73 or above.**

## UConn ECE Chemistry

*(1 credit total, Junior or Senior Year)*

**Prerequisite:** Biology

**Credit Earned:** Science, STEM or Elective

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. Quantitative measurements illustrating the laws of chemical combination in the first semester lab.

## UConn ECE General Physics I

*(1 credit, Senior Year)*

**Prerequisite:** Biology, Chemistry and Precalculus

**Credit Earned:** Science, STEM or Elective

A non-calculus-based course introducing the laws of force and motion applied to mechanical phenomena. Concepts such as work, mechanical energy, linear and angular momentum, and energy conservation are explained.

## Scientific Research and Design

*(1 credit total, Junior/ and Senior Years)*

**Prerequisite:** Integrated Science and Biology

**Credit Earned:** Science, STEM or Elective

This research and design course aims to arm students with the tools to properly and effectively evaluate scientific literature and design valid and sound scientific studies of their own. These skills are essential tools for 21<sup>st</sup> century students to increase awareness and stewardship of the societies that will soon oversee maintaining. These skills include the ability to locate and properly critique/evaluate formal and informal literature, ask proper and effective research questions, use phenomenon to develop concepts for new studies, collect and effectively present data sets, and present their findings to a variety of audiences in a variety of manners. These are skills that extend well beyond the world of science and as such are essential for any student to carry with them in their education.

## UCONN ECE Environmental Science

*(1 credit total, Junior/Senior Year)*

**Prerequisite:** Integrated Science and Biology

**Credit Earned:** Science/ STEM or Elective

This college level environmental studies course introduces the biological and physical aspects of the environment and related issues, highlighting sound science, sustainability, and stewardship. Students will study ecological principles and a global perspective on environmental problems such as deforestation, global climate change, droughts, floods, soil erosion, loss of biodiversity, and pollutants. Additionally, this course emphasizes a global and cross-cultural perspective on issues pertaining to environmental science, including discussions on human population expansion, social modernization, socioeconomic stratification, environmental justice, global stewardship, and establishing a framework for a sustainable future. Students will receive college credits upon successful completion of this course.

## UCONN ECE Marine Science

*(1 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite:** Biology and Chemistry

**Credit Earned:** Science/STEM or Elective

This is a college introductory course in Oceanography. This course will explore the properties and processes of the world's ocean in terms of geology, chemistry, air and water circulation, and biology. It will focus on the relationships and interactions that form the diverse marine environments around the globe. Topics covered include plate tectonics, the sea floor and its sediments, physical properties and chemistry of seawater, atmospheric and ocean circulation, waves, tides, marine food webs, coasts, beaches, benthic and estuary environments, and ocean engineering. This course is designed for students who are prepared to read, write, and study at an advanced level.

## Botany

*(.5 credit total, Junior or Senior Year)*

**Prerequisite:** Integrated Science and Biology

**Credit Earned:** Science/STEM or Elective

This will be an introduction to botany course. Students will study a variety of plants, from unicellular plant life to angiosperms (flowering plants). Students will be introduced to taxonomy, a scientific naming system used for organizing and classifying organisms. Students will have the opportunity to hypothesize, design, and carry out investigations within the high school's greenhouse, and will spend time exploring Connecticut's natural flora, both on school grounds and on various field investigations. Students will learn to observe their environment, keep a botany field journal, and identify plant life.

# Social Studies Department

## World History Survey

*(1.0 credit total, Freshman Year)*

**Prerequisite:** None

**Credit Earned:** Social Studies

In the Modern World History Survey course, students' study both change and continuity as they investigate diverse perspectives and the interconnectedness of people and ideas over time. Students will explore topics about cultural exchange, industry and progress, imperialism, global conflicts, decolonization, economic globalization, and global governance using disciplinary tools and resources that support the planning and development of inquiries, evaluation of a broad range of historical sources, and communication of knowledge and ideas about the history of the world.

## Honors World History

*(1.0 credit total, Freshman Year)*

**Prerequisite:** None

**Credit Earned:** Social Studies

Honors World History traces the human journey, from the earliest tribal human groups to the modern day. Acknowledging the impossibility of covering all of our world's history, the course focuses on the major developments and turning points in human societies in an effort to help students understand why the world is the way it is today. Students will learn about the causes of the Agricultural, Urban, and Industrial Revolutions and how each changed the daily lives and psyche of human beings. They will study about the major world wars and the methods governments on both sides of these battles used to garner support from their people. We then move into studying The Cold War era with a heavy focus on comparing how various sources from around the world report on a single topic and what we need to do to get closer to the truth in a world filled with conflicting information/misinformation. Finally, we look at the modern world, identify the major issues of our time, and investigate the ways in which different nations are tackling problems to broaden our perspective on what is possible. Throughout these units, students will be required to develop their writing skills, especially the ability to support a stance with evidence from multiple sources.

## U.S. History

*(1.0 credit total, Sophomore Year)*

**Prerequisite:** World History or Honors World History

**Credit Earned:** Social Studies

This course traces the development of the United States from Reconstruction to modern America. Attention is given to how conceptions of liberty, equality, and justice have changed over time. As well as what should be the role of the United States in global events and issues. Emphasis is placed on the historical origins of contemporary problems: urbanization, distribution of economic and political power, and involvement in world affairs. The problem of adapting and preserving traditional ideals under modern conditions is investigated. Student learning will focus on six principal themes of historical inquiry: conflict, geography, religion and beliefs, economics and trade, arts and sciences, and government. Much emphasis will be placed on literacy and writing, the use of primary source documents, analysis of historical themes, and the development of effective arguments.

## AP U.S. History

*(1.0 credit total, Sophomore Year)*

**Prerequisite:** World History or Honors World History

**Credit Earned:** Social Studies

AP American history is an intense, year-long, college-level course on American History from New World beginnings to the present. Much emphasis is placed on the founding documents, as well as other selected primary sources. Students will write essays on these documents throughout the year. Successful completion requires a dedicated and highly motivated student.

## Economics

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** World History and either U.S. History or AP U.S. History

**Credit Earned:** Social Studies, Humanities or Elective

Economics is a one semester survey course. In the course of the semester, students will explore microeconomics (individuals, households, and firms) and macroeconomics (states, regions, and nations). The class will combine lecture, reading, online activities, simulations, and other activities to learn, practice, and demonstrate an understanding of economic influences on people's lives. At the end of this course, students will understand basic economic principles and be able to explain how these principles apply in contemporary economy. Students will also investigate the role of consumers in a complex market economy system.

## Government

*(0.5 credit total, Junior/Senior Years)*

**Prerequisite:** World History and either/concurrently with U.S. History or AP U.S. History

**Credit Earned:** Government (Social Studies)

Students will develop an understanding of the principles of American government, the philosophies of the Constitution and other founding documents, the organization, and powers of branches of the government, and the rights and responsibilities of citizens. Emphasis is placed on the practical knowledge needed for effective participation in contemporary American life. Students will be expected to interpret primary sources, essays, and other documents. Papers and research projects are components of this class.

## AP Government

*(1.0 credit total, Junior/Senior Years)*

**Prerequisite:** World History and either U.S. History or AP U.S. History

**Credit Earned:** .5 Government, .5 Social Studies

AP Government is an intense, year-long, college level course designed around the various aspects of American government and politics. Much emphasis is placed on founding documents and other primary sources, on which students will write essays. Students are highly encouraged to remain abreast of national state and local news as it affects the actions of government. Students will compose weekly current event assignments and discuss and debate contemporary issues. Successful completion requires a dedicated and highly motivated student.

## Psychology

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** World History and either U.S. History or AP U.S. History

**Credit Earned:** Social Studies or Humanities

Psychology is an introductory course which surveys the many facets of human behavior. This course is designed so that students will gain a deeper understanding of themselves and others while broadening their insight into life. Normal behavior vis-à-vis abnormal behavior will be studied through a basic text. This course will survey a variety of topics in psychology.

## Criminal Justice

*(0.5 credit, Junior/Senior Years)*

**Prerequisite:** World History and either U.S. History Survey or AP U.S. History

**Credit Earned:** Social Studies or Humanities

Criminal Justice is intended to provide students with an understanding of today's criminal justice system, as well as affording them the opportunity to explore possible careers and of the controversial issues the system faces today. Speakers, activities, and visits to local courts and police departments, students will have the opportunity to learn about the system as well as explore possible careers in the criminal justice field. Study will focus on the following topics: the laws, procedures, and policies involved in processing an offender through the criminal justice system; the roles and responsibilities of various officials involved in processing offenders; the police role, the judicial system function, and the correctional techniques used in dealing with offenders; the history of the public's attitudes toward the offender and the resulting changes in laws, system policies, and legal practices.

## SCSU Criminology

*(1 credit, Junior/Senior Years)*

**Prerequisite:** World History and either U.S. History Survey or AP U.S. History

**Credit Earned:** Social Studies or Humanities

The study of crime from a sociological perspective, broadly known as criminology. Students will be introduced to national data sources on crime and victimization as well as additional methodologies for measuring and understanding crime and social responses to crime. The purposes of criminal law, types of crime, theories of criminal behavior, and the social organization of law enforcement, courts and prisons.

## Ethnic Studies

*(1.0 credit total, Junior/Senior Years)*

**Prerequisite:** World History and either U.S. History or AP U.S. History

**Credit Earned:** Social Studies or Humanities

Students will explore the local and national histories of various ethnic groups, such as Native Americans, African Americans, Latino Americans, and Asian Americans. This exploration will begin with a self-identity unit. Students will review primary and secondary sources to analyze how political, social, and economic factors impacted various groups throughout U.S. History. The course will include off-campus learning experiences and a variety of guest speakers. The course will focus on such themes as social justice, social responsibility, and social change.

## Ethnic Studies II (not running in 24-25)

*(1.0 credit total, Junior/Senior Years)*

**Prerequisite:** Ethnic Studies I, World History and either U.S. History or AP U.S. History

**Credit Earned:** Social Studies or Humanities

Ethnic Studies II is a project-based experience that utilizes the unique knowledge and skills students developed in Ethnic Studies I. In collaboration with district elementary magnet schools, this course will afford students an experiential opportunity to share the knowledge gained in Ethnic Studies I with elementary school students and collaborate to develop course materials for future Ethnic Studies 1 classes.

## African American/Black and Puerto Rican/Latino Studies

*(1.0 credit total, Junior/Senior Years)*

**Prerequisite:** World History and U.S. History

**Credit Earned:** Social Studies or Humanities

The course is an opportunity for students to explore accomplishments, struggles, intersections, perspectives, and collaborations of African American, Black, Latino, and Puerto Rican 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.

## UConn ECE Educators Rising

*(1.0 credit total, Junior or Senior Year)*

**Prerequisite:** None

**Credit Earned:** Social Studies or Humanities

Open to all students, this course is designed to introduce students from diverse backgrounds to the profession of teaching through a nationally recognized curriculum provided by Educator's Rising. Lesson topics are focused on five domains, or foundational areas, for rising educators to explore: You, Your students, Your classroom, Your community, and Your profession. Students will develop their own philosophy and identity as teacher through experiential learning and have opportunities to connect with students and community members from diverse backgrounds. The course will provide foundational knowledge of school systems, instruction, and professionalism through a social justice lens. Students will also have the opportunity to connect with other students from around the country that are also exploring a future in education.

## African American Music History

*(1.0 credit total, Junior or Senior Year)*

**Prerequisite:** World History and either American History or AP American History

**Credit Earned:** Social Studies or Humanities

Students will explore the history of the United States through the lens of music. African American music is a vehicle through which to learn about archaeology, anthropology, slavery, economics, civil rights, suffrage, and the origins of the music that infused African culture and European genres within the context that existed for African Americans since the United States came to be.

# World Language

## French I

*(1.0 credit total, Any Year)*

**Prerequisite:** None

**Credit Earned:** World Language, Humanities or Elective

This course is primarily recommended for English speakers. The first year is an introduction to the target language, its pronunciation, inflection, and tempo. Students will develop communicative competency skills of reading, writing, speaking, and listening. This will be done within situational, lifestyle frameworks, and reading/writing assignments. Students gradually master basic conversational sentences, such as greetings, weather, numbers, time, etc., through active oral participation. Listening to and comprehending target speakers is a major part of each lesson. In addition, students will learn to appreciate other French-speaking cultures through lectures, readings, and independent assignments.

A major component of this course is individual student participation. Recommended for college preparatory students.

Not recommended for French speaking students who wish to improve their grammar/reading/writing skills. (see French III – IV)

## French II

*(1.0 credit total, Sophomore, Junior or Senior Years)*

**Prerequisite:** French I

**Credit Earned:** World Language, Humanities or Elective

This course is recommended for English speakers who have completed French I. Second year students, having mastered basic conversational expression, now combine these with their own ideas to communicate in the target language with greater ease and with an expanded vocabulary. Students will further develop their communicative-competency skills and achieve a level of “advanced novice” proficiency in reading, writing, listening and oral skills. Students will increase accuracy in written expression and listening comprehension of the native speaker at a more fluent level. The study of history, lifestyle and cultural differences is infused throughout the year.

A major component of this course is individual student oral participation. Classes are conducted in the target language. A minimum grade of C in the first year is strongly recommended for this level course.

Not recommended for French speaking students who wish to improve their grammar/reading/writing skills. (see French III – IV)

## French III

*(1.0 credit total, Junior or Senior Year)*

**Prerequisite:** French II

**Credit Earned:** World Language, Humanities or Elective

Level III French reviews, reinforces and refines students’ knowledge of Levels I and II. Students will achieve “intermediate proficiency” in reading, writing, listening, and speaking skills. Students learn to appreciate other cultures at a deeper level. An interactive classroom, combined with modern technology, will facilitate and enhance students’ proficiency and appreciation. Themes from selected readings, video and interactive videos will be used as topics for conversation and paragraph writing. Students will be expected to form written and oral sentences, read, and comprehend at an advanced level. Furthermore, students are expected to be more open and receptive to the differences in cultures. Students will perform graded tasks.

Recommended for French speaking students who wish to improve their grammar/reading/writing skills (Placement test required for students who did not take French II).

## French IV

*(1.0 credit total, Senior Year)*

**Prerequisite:** French III

**Credit Earned:** World Language, Humanities or Elective

This course continues reinforcing and developing the students’ listening, speaking, reading and writing skills of French III in a progressively more advanced manner. Role-playing real life situations is emphasized. The course will introduce the works of key figures in contemporary and classical literature from French authors to foster literary appreciation.

Recommended for French speaking students who wish to improve their grammar/reading/writing skills. (Placement test required for students who did not take French III).



## Spanish I

*(1.0 credit total, Any Year)*

**Prerequisite : None**

**Credit Earned: World Language, Humanities or Elective**

This course is primarily recommended for English speakers. The first year is an introduction to the target language, its pronunciation, inflection, and tempo. Students will develop communicative competency skills of reading, writing, speaking, and listening. This will be done within situational, lifestyle frameworks, and reading/writing assignments. Students gradually master basic conversational sentences, such as greetings, weather, numbers, time, etc., through active oral participation. Listening to and comprehending target speakers is a major part of each lesson. In addition, students will learn to appreciate other Spanish-speaking cultures through lectures, readings, and independent assignments.

A major component of this course is individual student participation. Recommended for college preparatory students.

Not recommended for Spanish speaking students who wish to improve their grammar/reading/writing skills. (see Spanish III – IV).

## Spanish II

*(1.0 credit total Sophomore, Junior or Senior Year)*

**Prerequisite: Spanish I**

**Credit Earned: World Language, Humanities or Elective**

This course is recommended for English speakers who have completed Spanish I. Second year students, having mastered basic conversational expression, now combine these with their own ideas to communicate in the target language with greater ease and with an expanded vocabulary. Students will further develop their communicative competency skills and achieve a level of intermediate proficiency in reading, writing, listening and oral skills. Students will increase accuracy in written expression and listening comprehension of the native speaker at a more fluent level. The study of history, lifestyle and cultural differences is infused throughout the year.

A major component of this course is individual student oral participation. Classes are conducted in the target language.

NOT recommended for Spanish-speaking students who wish to improve their grammar/reading/writing skills. (See Spanish III – IV).

## Spanish III

*(1.0 credit total, Junior or Senior Year)*

**Prerequisite: Spanish II**

**Credit Earned: World Language, Humanities or Elective**

Level III Spanish reviews, reinforces and refines students' knowledge of levels I and II. Students will achieve an advanced proficiency in reading, writing, listening, and speaking skills. Students learn to appreciate other cultures at a deeper level. An interactive classroom, combined with modern technology, will facilitate and enhance students' proficiency and appreciation. Themes from selected readings, video and interactive video will be used as topics for conversation and paragraph writing. Students will be expected to form written and oral sentences, read and comprehend at an advanced level. Furthermore, students are expected to be more open and receptive to the differences in cultures. Students will perform graded tasks.

Recommended for Spanish-speaking students who wish to improve their grammar/reading/writing skills (Placement test required for students who did not take Spanish II).

## Spanish IV

*(1.0 credit total, Senior Year)*

**Prerequisite: Spanish III or with approval of teacher**

**Credit Earned: World Language, Humanities or Elective**

This course continues reinforcing and developing the students' listening, speaking, reading, and writing skills of Spanish III in a progressively more advanced manner. Role-playing real life situations is emphasized. The course will introduce the works of key figures in contemporary and classical literature from Spain and Latin America to foster literary appreciation.

Recommended for Spanish-speaking students who wish to improve their grammar/reading/writing skills. (Placement test required for students who did not take Spanish III).

## Spanish for Native Speakers I

*(1.0 credit total, Any Year)*

**Prerequisite: Native speaker with ability to read, write and speak Spanish**

**Credit Earned: World Language, Humanities or Elective**

This course is an in-depth study of the Spanish language designed for native-speaking students who can read, speak, and write Spanish with ease. This course will provide study in grammar, composition, and reading in all literary areas.

## Spanish for Native Speakers II

*(1.0 credit total, Sophomore, Junior or Senior Year)*

**Prerequisite:** Native speaker with ability to read, write and speak Spanish

**Credit Earned:** World Language, Humanities or Elective

This course is an in-depth study of the Spanish language designed for native-speaking students who can read, speak, and write Spanish with ease and would like to continue developing literacy in Spanish.

This course will provide study in grammar, composition, and reading in all literary areas.

## AP Spanish Literature

*(1.0 credit total, Any Year)*

**Prerequisite:** Ability to read, write and speak Spanish

**Credit Earned:** World Language, Humanities or Elective

This course is offered to Spanish-speakers and English-speakers with a strong language background. Students will study narrative and dramatic structures, understand literary terms, learn about versification, and authors' historical and personal backgrounds. The students will acquire the ability to analyze different genres that will prepare them to take the AP Spanish Literature exam in the spring. Students must take the AP Spanish Literature examination. College credit is determined by individual universities.

## AP Spanish Language and Culture

*(1.0 credit total, Any Year)*

**Prerequisite:** Ability to read, write and speak Spanish

**Credit Earned:** World Language, Humanities or Elective

This course is offered to Spanish speakers and to English speakers with a strong language background. The course strives to promote fluency and accuracy in language use. Students will engage in an exploration of culture through both contemporary and historical texts. Students must take the AP Spanish Language and Culture examination. College credit is determined by individual universities

## LatinX Language & Culture

*(1.0 credit total, Any Year)*

**Prerequisite:** Guidance recommendation. Students who have advanced knowledge of Spanish or who have already taken Spanish I, II or III cannot take this course.

This course introduces students to the Spanish language and cultures in the context of studying family life and values in Spanish-speaking communities while exploring basic Spanish language skills. Language learning in this course will focus on understanding and learning to speak simple phrases, relevant vocabulary, and very basic grammatical structures. All language skills will be practiced: listening, speaking, reading, and writing. This course also introduces students to several the Spanish-speaking cultures including Mexico, Central America, the Caribbean and South America. Students will learn similarities and differences in values, attitudes, and actions as they investigate different cultures through a wide variety of resources (e.g., online resources, texts, visual and fine arts, videos). Students will also investigate specific topics related to cultural experiences (e.g., ecotourism in Costa Rica, indigenous cultures in Guatemala, Honduras & El Salvador, Puerto Rico as part of the USA, The Dominican Republic tourism industry). The course does not overlap with Spanish 1.

## Chinese I

*(1.0 credit total, Any Year)*

**Prerequisite:** None

**Credit Earned:** World Language, Humanities or Elective

This online course taught by teachers of Chinese native speakers is for those who have never had Chinese before or who have had little formal study. The students are introduced to the basic language and culture of China through a combination of text, audio, and visual materials. A vocabulary base is built to facilitate basic conversations about themes related to travel to China. The teaching and learning will be done within situational, travel related frameworks, and Chinese culture study related reading/writing assignments. Listening to and comprehending Chinese speakers is a major part of each lesson. Students learn basic conversational sentences, such as greetings, weather, numbers, time, nationality, occupation, etc., through active oral participation. In addition, students will be introduced to culture and history around four major cities of China.

## Chinese II

*(1.0 credit total, Sophomore, Junior or Senior Year)*

**Prerequisite:** Chinese I

**Credit Earned:** World Language, Humanities or Elective

This is a one-year advance language and cultural study course that engages students with Chinese character reading and writing, advanced situational conversations and in-depth learning of the society and contemporary life in China through films. LCTC II will be taught by Chinese native-speaking teachers via Zoom. This class is offered to students who have successfully completed Learn Chinese and Travel to China I. It aims to deepen students' interest in learning Chinese language and culture. It will help students to advance conversational skills and guide them to start recognizing, reading and writing Chinese characters.



# ARTS PATHWAY

## Visual Arts

### Art Foundations

*(1 credit total, Any Year)*

**Prerequisite: None**

**Credit Earned: ARTS/Humanities**

Students explore the Principles and Elements of Art and Design through a variety of media and projects. An overarching theme of Art Foundations is experimentation of materials and technique. Throughout this course, students are introduced to a variety of drawing, painting, and sculpting methods as a means for personal expression and technical skill development. Art history and theory are incorporated into projects and used to develop a greater understanding and appreciation of the arts.

### World Arts & Culture

*(0.5 credit, All Years)*

**Prerequisite: None**

**Credit Earned: ARTS/Humanities**

Through investigation of diverse artistic traditions of cultures from around the world, this course fosters in-depth and holistic understanding of the history of art from a global perspective. Through the creation of handmade artifacts, crafts, and fine art, students will learn how events and ways of life influenced each art period and popular artists of that time.

### Figure Drawing

*(0.5 credit, Sophomore, Junior, Senior Years)*

**Prerequisite: Art Foundations, or equivalent experience with teacher approval**

**Credit Earned: ARTS/Humanities**

Learn to draw the figure with expression and accuracy with pencil, charcoal, pastel, ink and more. Students will get the opportunity to observe live models (some familiar faces!) to develop skills in observational drawing, gesture drawing and proportional measuring.

### Painting I

*(0.5 credit, Sophomore, Junior or Senior Years)*

**Prerequisite: Art Foundations, or equivalent experience with teacher approval**

**Credit Earned: ARTS/Humanities**

In this course, students will have the opportunity to develop an understanding of color theory and beginner painting processes and procedures. An emphasis will be placed upon learning to see light, color, shape and form and the expression of these elements through paint. Drawing skills are improved and integrated into projects as a foundation for painting. Many painting materials are used, including acrylic, gouache, watercolor, and ink. This course is a prerequisite to Painting II.

### Painting II

*(0.5 credit, Sophomore, Junior or Senior Years)*

**Prerequisite: Painting I**

**Credit Earned: ARTS/Humanities**

Students build upon what they learned in Painting I. In this course, students will have the opportunity to synthesize their understanding of color theory and painting processes with conceptual aspects of art making. An emphasis will be placed upon visually describing individual ideas and concepts through painting. Drawing skills are integral to the painting process and are integrated into projects as a foundation for painting. A variety of painting media are used including acrylic, gouache, and watercolor paint with advanced methodology.

### Ceramics I

*(0.5 credit, Sophomore, Junior or Senior Year)*

**Prerequisite: Art Foundations, or equivalent experience with teacher approval**

**Credit Earned: ARTS/Humanities**

From prehistoric pinch pots to contemporary ceramic artwork, clay has been an essential art medium for cultures around the world. In this course, students will explore the basics of working with clay from hand-building techniques such as coiling, slab building and pinching to throwing on the potter's wheel. Students will learn the history of ceramics examining ancient cultures and the impact clay has on modern day cultures.

**PLEASE NOTE: This is a hands-on course in which students will be working with clay every day. Sketchbook required.**

## Ceramics II

*(0.5 credit total, Sophomore, Junior or Senior Year)*

**Prerequisite:** Ceramics I

**Credit Earned:** ARTS/Humanities

This course builds on prior experience and skill in hand-building and wheel-throwing clay techniques. In this class, students will work to improve craftsmanship and learn additional skills including trimming, pulling handles, sgraffito, slip trailing, embossing and various glazing techniques. Students will load and fire kilns, recycle clay, create molds and maintain a ceramic studio.

**PLEASE NOTE:** This is a hands-on course in which students will be working with clay every day. Sketchbook required.

## Honors Advanced Ceramics

*(1 credit, Sophomore, Junior or Senior Year)*

**Prerequisite:** Ceramics II

**Credit Earned:** ARTS/Humanities

This course builds on prior experience and skill in hand-building and wheel-throwing clay techniques. In this class, students will work to improve craftsmanship and learn additional skills including trimming, pulling handles, sgraffito, slip trailing, embossing and various glazing techniques. Students will load and fire kilns, recycle clay, create molds and maintain a ceramic studio.

**PLEASE NOTE:** This is a hands-on course in which students will be working with clay every day.

## 2-D Design

*(0.5 credit, Sophomore, Junior or Senior Year)*

**Prerequisite:** Art Foundations, or equivalent experience with teacher approval

**Credit Earned:** ARTS/Humanities

Students will explore compositional design aspects of 2-dimensional artwork utilizing different techniques and materials. Students work from both observation and imagination to create works of art that explore the arrangement of the Elements and Principles of Art and Design. Emphasis is placed on the structure and craftsmanship of images, often in conjunction with a personally developed concept. Through perspective, portraiture, pattern, realism and abstraction, students develop formal and conceptual skill sets of visual expression.

## Sculpture (3-D Design)

*(0.5 credit, Sophomore, Junior or Senior Year)*

**Prerequisite:** Art Foundations, or equivalent experience with teacher approval

**Credit Earned:** ARTS/Humanities

In this course students will explore a wide variety of tools, techniques, and materials to create dynamic sculptural artworks. Students will create artworks in paper, cardboard, wood, clay, Paper Mache, plaster, wire and more! Students will explore concepts of traditional figurative and abstract sculpture, installation art and earth art. The elements of art and principles of design will be used as our vocabulary. Students will participate in individual and group critiques, write artist statements about their work, and display their work in our school and local communities.

## Art Portfolio Seminar

*(0.5 credit, Sophomore (with teacher approval), Junior or Senior Year)*

**Prerequisite:** Art Foundations, and one additional visual art course (can take concurrently)

**Credit Earned:** ARTS/Humanities

An honors-level intensive, one-semester studio experience for students who plan to continue to further their studies of visual art and begin or continue the process of building a portfolio in preparation for college. Students must have strong studio skills and be willing to spend a minimum of daily class time outside on studio work. Students will be expected to work semi-independently and exhibit their work in a "solo" show. The college, career, portfolio process and studio experience will be explored.

*This course is required for Arts Magnet Visual Art majors and serves as the capstone course, when required.*

## UConn ECE Drawing I

*(1 arts credit, 3 college credits; Junior or Senior Year)*

**Prerequisite:** Art Foundations, plus upper-level visual art courses, or by teacher approval

**Credit Earned:** ARTS/Humanities

Recommended students will develop an awareness and understanding of observational drawing through various life drawing exercises and projects. With a focus on light and perspective, students will explore the process of realistic drawing and image making and will develop a portfolio of work that reflects these Principles. Upon successful completion of this accredited course, students will earn 3 college credits.

# Music

## Symphonic Band

*(1 credit, all years)*

**Prerequisite:** Teacher Recommendation based upon mastery of a declared instrument demonstrated in previous years

**Credit Earned:** ARTS/Humanities

The "Symphonic Band" course represents the complete NLHS Band program, including pep band, concert band, and marching band. The NLHSMMC Band Program offers a comprehensive musical experience aligned with national core arts standards, fostering artistic expression, collaboration, and personal growth. Students engage in a dynamic curriculum of musical genres and styles that emphasize instrumental proficiency, musical literacy, and performance excellence in casual and competitive contexts. Symphonic Band involves multiple after-school performance obligations throughout the year such as athletic events, concerts, parades, field trips, and more. Prior experience on a band instrument is preferred, but beginners are welcome after a meeting is held and enhanced practice expectations are agreed to.

## Honors Symphonic Band

*(1 credit, junior and senior years)*

**Prerequisite:** At least 2 credits in Symphonic Band

**Credit Earned:** ARTS/Humanities

*[HONORS level credit is offered to students who have completed at least 2 years in Symphonic Band. Students earning honors are expected to participate in performances, audition for competitive ensembles, and will be held to the expectations of experienced performers.]*

## Percussion

*(1 credit, all years)*

**Prerequisite:** Teacher Recommendation

**Credit Earned:** ARTS/Humanities

Percussion class is a separate class for percussionists/drumline members who are a part of the larger New London High School Band program. Percussionists have their own separate class due to the many unique skills and techniques that are involved in being a percussionist. The NLHSMMC Band Program offers a comprehensive musical experience aligned with national core arts standards, fostering artistic expression, collaboration, and personal growth. Percussion students engage in a dynamic curriculum of musical genres and styles that emphasize instrumental proficiency, musical literacy, and performance excellence in casual and competitive contexts. Being a percussionist in the NLHS Band involves multiple after-school performance obligations throughout the year such as athletic events, concerts, parades, field trips, and more. Prior experience on a percussion instrument is preferred, but beginners are welcome after a meeting is held and enhanced practice expectations are agreed to.

## Honors Percussion

*(1 credit, junior and senior years)*

**Prerequisite:** At least 2 credits in Percussion

**Credit Earned:** ARTS/Humanities

*[HONORS level credit is offered to students who have completed at least 2 years in Percussion. Students earning honors are expected to participate in performances, audition for competitive ensembles, and will be held to the expectations of experienced performers.]*

## Concert Choir

*(1 credit, all years)*

**Prerequisite:** None

**Credit Earned:** ARTS/Humanities

Open to all students who wish to develop singing skills in a group setting. In Concert Choir (known as NLHS Voices United), students will develop vocal skills and technique through warm-ups and exercises, which they will apply to a varied repertoire of songs, working collaboratively towards group performance goals. Musical styles will include traditional choral, jazz, Broadway, classic and contemporary pop, world music, and a cappella. **All members are required to participate in all choir activities, which may include but are not limited to school functions, community events, festivals, adjudications, and concerts.**

## Honors Concert Choir

*(1 credit, Junior and Senior years)*

**Prerequisite:** At least 2 credits in Concert Choir

**Credit Earned:** ARTS/Humanities

*[HONORS level credit is offered to students who have completed at least 2 years in Concert Choir. Students earning honors are expected to participate in performances, audition for competitive ensembles, and will be held to the expectations of experienced performers.]*

## World Music Cultures: Ancient Period

*(0.5 credit, Any Year)*

**Prerequisite:** None

**Credit Earned:** ARTS/Humanities

This course is designed for all students interested in participating in a non-performance music class. Students will experience the rich tapestry of human history by exploring diverse musical traditions, instruments, and cultural practices that defined ancient societies across the globe. A focus is given on music listening, discussion, and project-based learning that highlights individual cultures and nations across history; and how music shapes these cultures and societies. Students can also continue to the "Modern Period" section in semester 2 if interested.

## World Music Cultures: Modern Period

*(0.5 credit, Any Year)*

**Prerequisite:** None

**Credit Earned:** ARTS/Humanities

This course is designed for all students interested in participating in a non-performance music class. By the end of this course students will have experienced music from every country on our planet. This course offers an immersive exploration of contemporary music from around the world, examining its cultural roots, historical contexts, and societal significance. This is a standalone course, but best taken in conjunction with the "Ancient Period" section during Semester 1.

## Music Production and Technology I

*(0.5 credit, Any Year)*

**Prerequisite:** None

**Credit Earned:** ARTS, STEM or Elective

This introductory course invites students to explore the art and science of music creation, recording, and production using industry-standard software and hardware tools. Through a blend of theory, hands-on practice, and creative exploration, students will gain foundational skills in studio production techniques.

## Music Production and Technology II

*(0.5 credit, Any Year)*

**Prerequisite:** Music Production and Technology I, or special permission from instructor

**Credit Earned:** ARTS, STEM or Elective

Building upon the foundational knowledge acquired in Music Production and Technology Level 1, this intermediate-level course offers an immersive exploration of advanced studio production techniques, utilizing GarageBand, Logic, and Pro Tools in both computer lab and recording studio environments. Emphasis is placed on conducting comprehensive recording sessions and refining studio production skills.

## Introduction to Piano and Guitar

*(0.5 credit, Any Year)*

**Prerequisite:** None

**Credit Earned:** ARTS/Humanities

This course is designed for students looking for a non-performance music class that still involves learning a musical instrument. Unlock the joy of musical expression in the "Introduction to Piano and Guitar" class, a dynamic exploration designed to introduce students to the fundamentals of both instruments. This course offers an engaging and accessible pathway for students to learn the basics of piano and guitar playing without requiring prior music reading skills.

# **Media Arts**

## **Media Arts**

*(1 credit, Any Year)*

**Prerequisite:** Art Foundations or teacher recommendation

**Credit Earned:** ARTS/Humanities or STEM

This course is for Media Arts majors in the Arts Magnet pathway, and/or students who have an interest in exploring the arts through technology. This is an entry-level course focused on exploring the possibilities within the field of Media Arts. Students will learn about concepts including: fundamentals of working with digital images and image editing with Adobe Lightroom; stop-motion animation: a process using a series of still pictures in sequenced positions which, when strung together, create the impression of movement; Garageband: Mac program using the art of non-linear music editing, instrument loops, and composing own music, lyrics, voiceover tracks and podcasting; iMovie digital video production creation and editing, and web design with Google Sites.

## **Graphic Design & Illustration**

*(1 credit, Junior and Senior Years)*

**Prerequisite:** Media Arts

**Credit Earned:** ARTS/Humanities or STEM

This course is for Media Arts majors in the Arts Magnet pathway, and/or students who have an interest in exploring the arts through technology. In this class we will use Adobe Illustrator to "easily take an electronic pen in hand to make sketches that become art, logos, portraits, and cartoons. Draw in Illustrator with different digital pens, brushes, and pencils, and choose from a variety of paper and canvas types to achieve an analog look within a digital environment." (Adobe). Student artwork will be used to create professional-looking documents for a community partner. This course will prepare students to take the Adobe InDesign certification exam.

## **Photography & New Media**

*(1 credit, Junior and Senior)*

**Prerequisite:** Media Arts

**Credit Earned:** ARTS/Humanities or STEM

This course is for Media Arts majors in the Arts Magnet pathway, and/or students who have an interest in exploring the arts through technology. This course explores the history and practices of optical-based imaging. Students produce digital still images as well as video and animations through the single or combined use of computers, digital cameras, digital video cameras, scanners, photo, and video editing software, drawing, and painting software, graphic tablets, printers, new media, and emerging technologies. Additionally, students look at various fields where photography and video have thrived, i.e., art, journalism, anthropology, in order to analyze their functions in society.



# Dance

## **Ballet & Modern I**

*(0.5 credit, Any Year)*

**Prerequisite:** None

**Credit Earned:** ARTS/ Humanities

This course is open to Dance majors in the Arts pathway, or students who have an interest in dance. We will introduce students to the basic elements of Ballet and Modern dance, including correct alignment, vocabulary, and specific techniques in both ballet and modern dance. It will focus on coordination, flexibility, strength, use of space, and storytelling through movement. Students will learn techniques along with their cultural context.

## **Afro-Caribbean & Jazz I**

*(0.5 credit, Any Year)*

**Prerequisite:** None

**Credit Earned:** ARTS/ Humanities

This movement and research class is open to Dance majors in the Arts pathway, or students who have an interest in dance. This course connects various dance styles of the African & Latin diaspora with their cultural, historical, and geographical origins. It will serve as a dynamic combination of physical awareness, technique, and rhythmic explorations of dance styles from around the world.

## **Hip-Hop & Tap**

*(0.5 credit, Any Year)*

**Prerequisite:** None

**Credit Earned:** ARTS/ Humanities

This course is open to Dance majors in the Arts pathway, or students who have an interest in dance. We will explore Hip-Hop and Tap techniques along with their cultural and historical significance through precision, rhythm, and unity. Students will learn what it means to unify through dance and use the body to create music, message, and improvisation.

## **Ballet & Modern II**

*(0.5 credit, Any Year)*

**Prerequisite:** Ballet & Modern I

**Credit Earned:** ARTS/ Humanities

This course is open to Dance majors in the Arts pathway, or students who have an interest in dance and have fulfilled the prerequisite. This advanced level class will expand students' technique and analysis of Ballet and Modern dance. Students will further their mastery of body alignment, vocabulary, and repertoire in both ballet and modern dance. It will focus on coordination, flexibility, strength, use of space, and storytelling through movement. Students will learn techniques along with their cultural context.

## **Afro-Caribbean & Jazz II**

*(0.5 credit, Any Year)*

**Prerequisite:** Afro-Caribbean & Jazz I

**Credit Earned:** ARTS/ Humanities

This course is open to Dance majors in the Arts pathway, or students who have an interest in dance and have fulfilled the prerequisite. This advanced level class will further students' mastery of various dance techniques in the African & Latin diaspora. The course will expand students' analysis of how techniques connect with their cultural, historical, and geographical origins. This course will encourage greater flexibility, balance, coordination, and strength than the prerequisite.

## **Honors Principles of Choreography**

*(1 credit, Junior, and Senior Years)*

**Prerequisite:** Ballet & Modern II, Afro-Caribbean & Jazz II, or equivalent experience with teacher approval

**Credit Earned:** ARTS/ Humanities

This course is required for Dance majors in the Arts pathway and students who have an interest in dance and have fulfilled the prerequisites. This course will introduce dance composition. Solo, partner, and group work in basic choreographic processes and devices will be explored, developed, presented, and evaluated. Includes readings, writings and videos of choreographers, professional and peer choreography, and different forms of art as means of influence or analysis. Students are expected to participate in short studio presentations and submit complete original works in seasonal large stage presentations.

*This course is required for Arts Magnet Dance majors and serves as the capstone course, when required.*

# Theatre

## Theatre Arts

*(1 credit, Any Year)*

**Prerequisite: None**

**Credit Earned: ARTS/ Humanities**

This course is open to Arts Magnet Theatre majors, or students who have an interest in the Theatre Arts. Students will study an overview of the theatre to include theatre history, genres/types of theatre styles, professions in the theatre, and the structure of drama. There are no performance or production requirements.

## Acting I

*(1 credit, Any Year)*

**Prerequisite: None**

**Credit Earned: ARTS/ Humanities**

This course is open to Arts Magnet Theatre majors, or students who have an interest in performance. Students will learn acting techniques, stage directions, voice and diction techniques, and the fundamentals of script/character analysis through the exploration of monologues and duets/ensemble acting. They will also be required to memorize and perform on stage. Each semester will culminate in a showcase night at the end of the term. **Performance participation is a mandatory requirement of this class.**

## Honors Advanced Acting: Contemporary

*(1 credit, Sophomore, Junior, and Senior Years)*

**Prerequisite: Acting I**

**Credit Earned: ARTS/ Humanities**

This course is open to Arts Magnet Theatre majors, Vocal Music majors, or by audition with the Theatre teacher. Students will continue their study of acting techniques through the exploration of 20<sup>th</sup> Century and contemporary playwrights. Students will also study acting techniques for film, stage makeup, and professionalism within the entertainment industry. Memorization of monologues, duets, and ensemble scenes will be required. Students will also be required to audition and appear in the fall and spring productions. It is recommended that students enroll in this class, each year, to receive the full benefit of the varied acting styles. **Performance participation is a mandatory requirement of this class.**

## Honors Advanced Acting: Classical

*(1 credit, Sophomore, Junior, and Senior Years)*

**Prerequisite: Acting I**

**Credit Earned: ARTS/ Humanities**

This course is open to Arts Magnet Theatre majors, Vocal Music majors, or by audition with the Theatre teacher. Students will continue their study of acting techniques through the exploration of Classical (Shakespeare, the Greeks, and the Restoration) Theatre. Students will also study acting techniques for film, stage makeup, and professionalism within the entertainment industry. Memorization of monologues, duets, ensemble scenes, and musical numbers will be required. Students will also be required to audition and appear in the fall and spring productions. It is recommended that students enroll in this class, each year, to receive the full benefit of the varied acting styles. **Performance participation is a mandatory requirement of this class.**

## Honors Advanced Acting: Musical Theatre

*(1 credit, Sophomore, Junior, and Senior Years)*

**Prerequisite: Acting I**

**Credit Earned: ARTS/ Humanities**

This course is open to Arts Magnet Theatre majors, Vocal Music majors, or by audition with the Theatre teacher. Students will continue their study of acting techniques through the exploration of Musical Theatre. Students will also study acting techniques for film, stage makeup, and professionalism within the entertainment industry. Memorization of monologues, duets, ensemble scenes, and musical numbers will be required. Students will also be required to audition and appear in the fall and spring productions. It is recommended that students enroll in this class, each year, to receive the full benefit of the varied acting styles. **Performance participation is a mandatory requirement of this class.**

## Technical Theatre

*(1 credit, Any Year)*

**Prerequisite: None**

**Credit Earned: ARTS/ Humanities**

This course is open to Arts Magnet Theatre majors, or students who have an interest in production. Students will study an overview of the fundamentals of Technical Theatre and the components necessary to produce a theatrical production. They will develop the technical skills necessary to serve successfully as running crew members for live productions and live events. Students will participate in a series of studio assignments and production work calls that relate directly to our busy production calendar. Safety, theater etiquette and collaboration will be emphasized. Production participation is a mandatory requirement of this class.

***Production participation is a mandatory requirement of this class.***

## Honors Advanced Technical Theatre

*(1 credit, Sophomore, Junior, and Senior Years)*

**Prerequisite: Tech Theatre I, or special recommendation by instructor**

**Credit Earned: ARTS/ Humanities**

This course is open to Arts Magnet Theatre majors, or by special recommendation of the Theatre teacher. Students will continue their study of Technical Theatre through the in-depth study of Set/Scenic Design, Publicity, Properties, Costuming, Stage Management, Lighting, and Sound. They will continue to develop the technical skills necessary to serve successfully as running crew members for Arts productions and live events. Students will participate in a series of studio assignments and production work calls that relate directly to our busy production calendar. Safety, theater etiquette and collaboration will be emphasized. It is recommended that students enroll in this class, each year, to receive the full benefit of the varied components of Technical Theatre. **Production participation is a mandatory requirement of this class.**

## Playwriting

*(1 credit, Any Year)*

**Prerequisite: None**

**Credit Earned: ARTS/ Humanities**

Playwriting will explore script writing for the theatre through practice and discussion. Students will study the major components of playwriting including exposition, crisis, and resolution along with action, dialogue, and character. Students will deepen their understanding of these components by completing writing assignments and engaging in discourse and feedback in a workshop style setting. **They will also be required to write a 10–15-page script for submission to the Eugene O'Neill Young Playwright's Festival.**

## Directing/Producing for the Stage

*(0.5 credit total, Junior or Senior Year)*

**Prerequisite: One year of Honors Advanced Acting or Honors Advanced Technical Theatre, or by special recommendation of teacher**

**Credit Earned: ARTS/ Humanities**

This course provides critical and theoretical opportunities for students, in theatre, as well as the application of directing and producing techniques as applied to scene work. Students focus on production elements including directing skills for the stage, stage management, and production responsibilities. This course integrates and applies play/script analysis, character analysis (as it relates to actors), and auditioning techniques. **Students will be required to direct each other in scenes, in a performance showcase, at the end of the semester.**



# IE PATHWAY

## Culinary Arts

### Culinary Arts I

*(1.0 credit total)*

**Prerequisite:** None

You will learn from the ground up! This entry level culinary program offers coursework in sanitation, basic baking, meat, seafood, and poultry fabrication. While working in our kitchen, we will open your eyes to flavors, taste and techniques that will help you in the culinary field, should you desire to pursue it. Semester One: knife skills, safety and sanitation, baking, pastry, and nutrition. You will have the opportunity to become sanitation certified through Ledge Light Health District. Semester Two: soups and sauces, starches, vegetables, proteins, and you will learn how to plate up dishes just like a professional in a kitchen.

### Culinary Arts II

*(1.0 credit total, Sophomore/Junior Years)*

**Prerequisite:** Culinary Arts I with a final grade of 75% or higher

**\* Seniors with permission of instructor**

This is our intermediate class in Culinary Arts. This is meant for the serious student who may be interested in a career in culinary arts. In this yearlong class, you will jump right into production and learn how to make products on a large scale. This will give you some real-life experience to get you prepared for working in the field. Semester One: we will cover cost control, standardized recipes, breakfast cookery, salads, garnishes, and sandwiches! Semester Two: we will continue working on our production and cover American regional cuisine, World regional cuisine and specialty desserts. You will be expected to attend after-school events with at least 2 weeks' notice.

### Honors Culinary Arts III

*(1.0 credit total, Junior & Senior Years)*

**Prerequisite:** Culinary Arts II with a final grade of 75% or higher and teacher recommendation

This is our advanced class in culinary arts. This course is meant for students who are interested in entering the career field and are very focused. In this year-long course, you will utilize prior skills learned and put yourself to the test with the Restaurant experience. Semester One: you will explore purchasing, inventory, serving guests, and marketing. Semester Two: you will continue your restaurant experience and explore how to build your career, management essentials and communications. Upon graduation from the program, Mohegan Sun has expressed interest in employment. **Students are expected to attend after-school events and they will be given at least 2 weeks' notice.**

### Honors Advanced Culinary Arts

*(1.0 credit total)*

**Prerequisite:** Honors Culinary Arts III with a final grade of 75% or higher and teacher recommendation

This is our advanced class in culinary arts. This course is meant for students who are interested in entering the career field and are extremely focused. In this year-long course, you will utilize prior skills learned and put yourself to the test with the restaurant experience. Semester One: you will explore purchasing, inventory, serving guests, and marketing. Semester Two: you will continue your restaurant experience and explore how to build your career, management essentials and communications. Upon graduation from the program, Mohegan Sun has expressed interest in employment. **Students are expected to attend after-school events and they will be given at least 2 weeks' notice.**

# Naval Junior ROTC Program

## **Naval Science I (First-Year Cadet)**

*(1 credit total, All Years)*

**Prerequisite:** None

The primary objectives of this course are to introduce students to the meaning of citizenship, the elements of leadership, and the value of scholarship in attaining life goals. In addition, to engender a sound appreciation for the heritage and traditions of America, with recognition that the historically significant role of sea power will be important in America's future. Furthermore, we strive to develop in each cadet a growing sense of pride in his/her organization, associates, and self. These elements are pursued at the fundamental level.

## **Naval Science II (Second-Year Cadet)**

*(1 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite:** Naval Science I

The primary objectives of this course are to engender a sound appreciation for the heritage and traditions of America, with emphasis on the importance of sea power and its contribution to the growth of our nation, and to develop in each cadet a growing sense of pride in his/her country, community, school, and self. These elements are pursued at the fundamental level.

## **Naval Science III (Third-Year Cadet)**

*(1 credit total, Junior/Senior Years)*

**Prerequisite:** Naval Science II

The primary objectives of this course are to broaden the understanding of students in the operative principles of leadership, the concept and significance of teamwork, the intrinsic value of good order and discipline in accomplishment of objectives, the fundamentals of American democracy, and to expand their knowledge of naval operations.

## **Naval Science IV (Fourth-Year Cadet)**

*(1 credit total, Senior Year)*

**Prerequisite:** Naval Science III

The primary objective of this course is solely on practical leadership. The intent is to assist seniors in understanding leadership and improving their leadership skills by putting them in positions of leadership, under supervision. Then help them analyze the reasons for their varying degrees of success throughout the year. Classroom activities include seminars, reading assignments, classroom presentations, and practical work with younger cadets.

# **Business Department**

## **Accounting I**

*(1.0 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite: None**

Accounting I (A) is designed to equip students with working knowledge of first-year accounting. Students will learn about accounting as a career in the 21<sup>st</sup> century. Students will also learn about General Accepted Accounting Principles and basic accounting practices. Students will learn to analyze transactions into debit and credit parts, record transactions into a general journal, post to a general ledger, and create a worksheet for a service business. Traditional banking activities and electronic banking are also covered in this course. *Additional emphasis will be placed upon ethics and morality in business financial reporting. Analyzing historical financial scandals and crises will also be discussed.*

Accounting I (B) is a continuation of Accounting I (A). Students will learn how to create balance sheets and income statements for a service business. They will learn how to make adjusting and closing entries, use special journals, post to general and subsidiary ledgers, and prepare payroll records and taxes. *An examination of accounting as a career and job placement opportunities are covered as well as the role of the accountant in the workplace.*

## **Marketing & DECA**

*(1.0 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite: None (participation in DECA is strongly encouraged)**

Marketing & DECA (A) emphasizes customer satisfaction and value in marketing. Product, price, promotion, place, people and physical evidence of quality, consumer behavior, marketing research, segmentation-targeting-positioning, ethical, global, and social issues are also discussed in this course. Students will learn about advertising and sales along with different selling tactics used in 21<sup>st</sup> century marketing.

Marketing & DECA (B) is a continuation of Marketing & DECA (A). Students will continue learning traditional marketing topics in addition to focusing on more real-world experiences including role plays, test taking skills and presentations to help students' success with the Spring State DECA Conference.

**DECA:** DECA prepares emerging leaders and entrepreneurs for careers in marketing, finance, hospitality and management in high schools and colleges around the globe. The High School Division includes 185,000 members in 5,000 schools. DECA enhances the preparation for college and careers by providing co-curricular programs that are integrated into classroom instruction, applying learning in the context of business, connecting to business and the community, and promoting competition. Our student members leverage their DECA experience to become academically prepared, community oriented, professionally responsible, experienced leaders.

## **Business of Sports and Entertainment**

*(1.0 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite: None**

The Business of Sports and Entertainment studies the key functions of business as they are applied to the sports and entertainment industries. This course studies professional sports leagues, Hollywood movie systems, popular athletes and celebrities and examines how these organizations and people make money, gain endorsement deals, face scandals and cope with the pressures of the public eye. This course introduces the student to foundational business concepts including product life cycles, marketing strategies as well as sponsorship and endorsement strategies. In addition, students will explore a wide variety of rewarding careers in these popular fields. Each unit will focus on specific areas such as brand marketing, licensing, sponsorships, promotion, management, sports and entertainment law and advertising.

## **Travel and Tourism Management**

*(1.0 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite: None**

Travel and Tourism Management incorporates management principles and procedures of the travel and tourism industry as well as destination geography, airlines, international travel, cruising, travel by rail, lodging, recreation, amusements, attractions, and resorts.

## **Financial Literacy**

*(0.5 credit total, Graduation Requirement beginning with the class of 2027)*

**Prerequisite: None**

A must for every student! Practical skills in personal financial literacy that provide a foundation for making informed financial decisions. Students will be introduced to financial concepts and develop skills to be able to survive and prosper in our complex economy. Coursework includes: income and money management, spending and credit, budgeting, banking and financial services.





# STEM PATHWAY

## Biomedical Science

### **Honors PLTW Principles of the Biomedical Sciences**

*(1 credit total, Freshman/Sophomore Years)*

**Prerequisite:** Teacher recommendation

**Credit Earned:** STEM or Elective

This course introduces the biomedical sciences through exciting “hands-on” projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, students investigate lifestyle choices and medical treatments that might have prolonged the person’s life. Key biological concepts including homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease are embedded in the curriculum. Engineering principles including: the design process, feedback loops, fluid dynamics, and the relationship of structure to function are incorporated in the curriculum where appropriate. The course is designed to provide an overview of all the courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses.

### **Honors PLTW Human Body Systems**

*(1 credit total, Sophomore/Junior Years)*

**Prerequisite:** Principles of the Biomedical Sciences

**Credit Earned:** STEM or Elective

This course will engage students in the study of the processes, structures, and interactions of human body systems. Important biomedical concepts in the course include: communication, transport of substances, locomotion, metabolic processes, identity, and protection. The central theme will focus on how the body systems work together to maintain homeostasis and good health. The systems will be studied as “parts of a whole,” working together to keep the amazing human machine functioning at an optimal level. Students will design experiments, investigate the structures and functions of body systems, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operation. Exploring science in action, students will work through interesting real- world cases and often play the role of biomedical professionals to solve medical mysteries.

### **Honors PLTW Medical Interventions**

*(1 credit total, Junior/Senior Years)*

**Prerequisite:** Human Body Systems

**Credit Earned:** STEM or Elective

In the Medical Interventions course, students will investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. A “How-To” manual for maintain overall health and homeostasis in the body, 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 a wide range of interventions related to Immunology, Surgery, Genetics, Pharmacology, Medical Devices, and Diagnostics. Each family case scenario will introduce multiple types of interventions and reinforce concepts learned in the previous two courses and present added content.

Interventions may range from simple diagnostic tests to the 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. Lifestyle choices and preventive measures are emphasized throughout the course and the important role scientific thinking and engineering design play in developing future intervention.

# Sports Medicine

## Introduction to Treatment & Prevention of Sports Injuries

*(0.5 credit, Junior/Senior Year)*

**Prerequisite:** Principles of Biomedical Science or Biology

**Credit Earned:** STEM or Elective

This course provides an opportunity for the study and application of the components of sports medicine including but not limited to: sports medicine related careers, organizational and administrative considerations, prevention of athletic injuries, recognition, evaluation, and immediate care of athletic injuries, rehabilitation and management skills, first aid/CPR/AED, emergency procedures, nutrition, sports psychology, human anatomy and physiology, therapeutic modalities, and therapeutic exercise.

## Introduction to Athletic Training

*(0.5 credit, Junior/Senior Year)*

**Prerequisite:** Principles of Biomedical Science or Biology

**Credit Earned:** STEM or Elective

This course will introduce the profession of athletic training and the basic principles of preventative care commonly used in the profession. Topics will include athletic training facility organization and procedures; protective sports equipment; construction of protective devices; and application of protective taping, braces, wrapping, and protective pads. Areas to be studied include the athletic trainer's role in sports medicine and athletic injury mechanisms.

## Personal Training Certification

*(1 credit total, Senior Year)*

**Prerequisite:** Introduction to Sports Medicine and Introduction to Athletic Training

**Credit Earned:** STEM or Elective

A two-semester course sequence developed by the National Academy of Sports Medicine (NASM) which will provide students with foundational information that will cover basic and applied sciences, fitness assessments, and rationale and components of integrated training. Students will prepare for and take the NCCA (National Commission for Certifying Agencies) Accredited Credentialing Examination to be a NASM Certified Personal Trainer. Upon successful exam completion, individuals will immediately become employable as Personal Trainers at all major health clubs across the country.

## Emergency Medical Responder (EMR)

*(.5 credit total, Junior/Senior Years)*

**Prerequisite:** Integrated Science and Biology, preferred to have completed Human Body Systems or Human Anatomy & Physiology and teacher approval

**Credit Earned:** STEM or Elective

Emergency Medical Responders provide immediate lifesaving care to critical patients who access the emergency medical services system. EMRs have the knowledge and skills necessary to provide immediate lifesaving interventions while awaiting additional EMS resources to arrive. EMRs also aid higher-level personnel at the scene of emergencies and during transport. Emergency Medical Responders are a vital part of the comprehensive EMS response. Under medical oversight, Emergency Medical Responders perform basic interventions with minimal equipment. Completion of this course is a steppingstone to National EMR certification. You will still be required to take the cognitive computer-based exam and Psychomotor examination. Further details on registering and testing will be available as the course progresses.

## UConn ECE EMT Training

*(1.5 credit total, Junior/Senior Year)*

**Prerequisite:** passed Biology and Chemistry w/ a B or better

**Credit Earned:** STEM or Elective

Instruction in basic life support skills, treatment of bleeding control and shock recognition, care for trauma victims, medical emergencies. Supervised practice experience and hands-on instruction of theory. Includes a 10-hour observation experience outside of classroom instruction. Meets the performance requirements of the National Registry of Emergency Medical Technicians (NREMT) certification exam. Students will perform site work and patient contacts on New London Fire department ambulances.

# Engineering

## Honors PLTW Engineering Essentials

*(1 credit total, Freshman Year)*

**Prerequisite:** None

**Credit Earned:** STEM or Elective

Engineering Essentials is a full-year course designed to be a high school student's first exposure to the Project Lead the Way (PLTW). In this course, students explore the work of engineers and their role in the design and development of solutions to real-world problems. The course introduces students to engineering concepts that are applicable across multiple engineering disciplines and empowers them to build technical skills using a variety of engineering tools, such as geographic information systems (GIS), 3-D solid modeling software, and prototyping equipment. Students learn and apply the engineering design process to develop mechanical, electronic, process, and logistical solutions to relevant problems across a variety of industry sectors, including health care, public service, and product development and manufacturing. (1): PLTW

## Honors PLTW Introduction to Engineering Design

*(1 credit total, Sophomore & Junior Year)*

**Prerequisite:** Engineering Design Essentials, can be taken concurrently with Honors PLTW Civil Engineering and Architecture

**Credit Earned:** STEM or Elective

This course emphasizes the development of design and communication. Students study the design concepts of form and function; then, use state-of-the-art technology to translate conceptual design into reproducible products. During introduction to engineering design student learning will culminate in students completing an innovation challenge team project. Introduction to Engineering Design is a course that teaches problem solving skills utilizing the design development process. Effective teamwork is central to project-based assignments. Models of products are created, analyzed, evaluated, and communicated using solid modeling computer design software. Prototypes are generated with various computer aided technology such as a plastic three-dimensional printer. Students will be introduced to how industry designs, manufactures, and markets products such as plastics.

This course teaches students to:

- » Apply the design process to solve various problems in a team setting
- » Apply adaptive design concepts in developing sketches, features, parts and assemblies
- » Interpret their own sketches in using computer software to design models
- » Understand mass property calculations-such as volume, density, mass, surface area, moment of inertia, product of inertia, radii of gyration, principal axes, and principal moments-and how they are used to evaluate a parametric model
- » Understand cost analysis, quality control, staffing needs, packing and product marketing
- » Develop portfolios to display their designs and present them to others

## Honors PLTW Civil Engineering and Architecture

*(1 credit total, Sophomore, Junior or Senior Year)*

**Credit Earned:** STEM or Elective

**Prerequisite:** Engineering Essentials and Introduction to Engineering Design or can be taken concurrently with Intro to Engineering Design

Civil Engineering and Architecture (CEA) is a high school level specialization course in the PLTW Engineering Program. In CEA students are introduced to important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architectural design software. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students will progress from completing structured activities to solving open ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

## Honors PLTW Principles of Engineering

*(1 credit total, Junior & Senior Years)*

**Prerequisite:** Engineering Design Essentials, Intro to Engineering Design, Teacher Recommendation, and concurrent enrollment in Algebra II

**Credit Earned:** STEM or Elective

This course provides an overview of engineering and engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, they address the emerging social and political consequences of technological change. Exploring various engineering systems and processes helps students learn how engineers and engineering technicians use math, science, technology, and teamwork in an engineering process to benefit society. Applied physics concepts are introduced and utilized to help analyze project solutions. All units utilize supplementary engineering analysis software.

# Informational Technology & Digital Media

## Digital Video Editing

*(0.5 credit, All Years)*

**Prerequisite:** None

**Credit Earned:** STEM or Elective

This semester course is an introductory course and gateway to the advanced video offering. The majority of time will be spent learning the basic principles of video production such as workflow, project planning, video capture, editing techniques, editing audio, video layering, motion graphics and output formats. Students will also learn the basics of lighting, sound, and interview techniques. Evaluation is based primarily on skill acquisition and the students' contributions to their portfolio. Adobe Digital Video Software and Curriculum is used.

## Video Production & Design

*(0.5 credit, All Years)*

**Prerequisite:** None

**Credit Earned:** STEM or Elective

In this one-semester class, students will learn simple and practical techniques for making movies, documentaries, promotional and industrial videos, and other kinds of visual stories. Students will write, plan, and shoot an original script. This class focuses on pre-production and production in our state-of-the-art TV studio. Students will collaborate on a video news segment, planning and scripting a short production. They will be provided with cameras, microphones, and lighting and each will take on a role in production. Students who take this class need to have commitment to learning the basics of digital production.

## Honors Video Production

*(1 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite:** Digital Video Editing and Video Production & Design

**Credit Earned:** STEM or Elective

Students will use professional cameras and Adobe Premier editing software to produce videos. Students will also engage in TV production utilizing the NLHSMC TV studio. This class will produce videos that include school wide announcements, interviews, student sport and academic highlights or accomplishments, and PSAs.

## Animation I

*(1 credit total, All Years)*

**Prerequisite:** None

**Credit Earned:** STEM or Elective

This course will introduce students to the incredible world of 3D animation. Students will learn how to create a variety of special effects that are used in the movie, gaming and motion picture industries using LightWave software, which is an industry standard. Students will also learn how to create their own characters, surface them and bring them to life in a variety of environments. This is a challenging course that will provide students with very marketable skills.

## Honors Animation II

*(1 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite:** Introduction to 3D Animation

**Credit Earned:** STEM, ARTS or Elective

This course is available to students who excelled in the Introduction to Animation course. The advanced course will pick up where the students left off in LightWave®. They will create college portfolios that will contain both individual and team professional quality animations, as well as a variety of artwork and sculpted (Claymation) characters. This is a challenging but enjoyable learning experience that will prepare students well for a variety of college majors.

## Honors PLTW Computer Science Essentials

*(1 credit total, All Years)*

**Prerequisite:** None

**Credit Earned:** STEM, ARTS or Elective

In Computer Science Essentials, students will start with visual, block-based programming and smoothly transition to text-based languages like Python®. They will apply computational thinking practices, enrich their vocabulary, and engage in collaborative projects, reflecting the methodologies of computing professionals. Ultimately, they'll develop products that tackle topics and challenges significant to them.

# Manufacturing

## Intro to Manufacturing

*(.5 credit total, All Years)*

**Prerequisite:** None

**Credit Earned:** STEM

A foundational course to provide a baseline of understanding the manufacturing process and career opportunities in the industry. Hands-on projects will emphasize measuring, tolerances, benchwork and layout, and other manufacturing operations as time allows. Students will be involved in the setup, procedures, and execution of various manufacturing processes, using a variety of tools, machines, and materials. This course is a prerequisite to the Youth Manufacturing Pipeline Initiative and Maritime Electrical programs.

## Manufacturing Technology

*(1 credit total, Sophomore/Junior/Senior Years)*

**Prerequisite:** Intro to Manufacturing, Algebra II or concurrent with Algebra II

**Credit Earned:** STEM

The Youth Manufacturing Pipeline Initiative program course to familiarize students with the entry-level manufacturing skills and knowledge required for new hires. The course will convey basic trade knowledge, workplace skills, and production readiness. The Youth Manufacturing Pipeline Initiative (YMPI) is a collaboration between New London Public Schools, the Eastern Workforce Investment Board (EWIB), CT State Community College- Three Rivers, and employers. A collaboration of industry and college affiliates designed the YMPI curriculum. This model holds tremendous promise for high school graduates to enter a long-term career pathway. This course will award students with up to 5 college credits from Three Rivers Community College if the student meets all requirements of the course. Also, students can earn their OSHA 10 certification and pre-apprenticeship hours in this course from the Office of Pre-Apprenticeship at the Department of Labor. Students will apply for this program in their sophomore *or* junior year of high school and must have completed Introduction to Manufacturing with a "C" or better.

## Maritime Electrical

*(1 credit total, Sophomore, Junior, Senior Years)*

**Prerequisite:** Intro to Manufacturing or teacher recommendation

**Credit Earned:** STEM or Elective

*In this course students will be able to build a skill set for troubleshooting, maintaining and installing electrical equipment and systems aboard ships. In addition there will be a focus on the maintenance and repair of shipboard electrical and electronic systems from fundamental electrical skills learned throughout the program.*

# Capstone Project

## Honors PLTW Biomedical Innovations

*(1 credit total, Senior Year)*

**Prerequisite:** Medical Interventions and teacher recommendation

In this capstone course students apply their knowledge and skills to answer questions or to solve problems related to the biomedical sciences. They will consult with a mentor or advisor from a university, hospital, physician's office, or industry as they complete their work. Students are expected to present the results of their work to an adult audience, which may include representatives from the local healthcare or business community or the school's PLTW® partnership team.

## ARTS Capstone

*(0.5 credit total, Junior Year, or Senior Year (Class of 2025 only))*

**Prerequisite:** None

- The Capstone Experience is a culminating activity that provides a way for Arts Magnet pathway students to display their talents and demonstrate mastery of the knowledge and skills they acquired during their secondary school years of education. As the Capstone project is student-directed, it provides an opportunity for students to not only communicate their learning, but also experience in planning, completing, and presenting their learning in a way that reflects their talents and interests.
- The capstone experience may include an in-depth project, reflective portfolio, research paper, community service, and/or internship utilizing and showcasing one or more arts discipline. It may include original dance, theatre, music, visual art or multi-media work, presented in a variety of public settings for a variety of audiences. As part of the experience, the student will demonstrate research, communication, and technology skills including additional relevant 21st century skills. Students are provided with the necessary class time to work on the project inclusive of, but not limited to, regular access to media center and technology, studio/rehearsal time, feedback sessions, and a calendar of dates for all deadlines. Students are also expected to do independent work outside of school hours to satisfy capstone requirements.
- Successful completion of a Capstone Project is required to graduate. This in-school senior project class will serve as a means of supporting students on the completion of their project, but only the completed project with a passing grade will earn full credit and fulfill the graduation requirement.

## International Education (IE) Capstone

*(0.5 credit total, Junior Year or Senior Year (Class of 2025 only))*

**Prerequisite:** None

- The Capstone is a student-directed, culminating project for seniors to share with the school community. A student will choose a topic of their choice and create an exhibition of their learning, skills they acquired and the journey of their learning. This process and learning can be shown through a portfolio, final project, research paper, etc.
- Students will have an advisor and be a part of a senior project class, where they are able to share thoughts and ideas with fellow classmates. A successful completion and sharing of the Capstone project is a graduation requirement and provides students with a real-life opportunity to pursue a topic/idea of their choice, learn more and share their new knowledge of their experience.

## STEM Capstone

*(0.5 credit total, Junior Year or Senior Year (Class of 2025 only))*

**Prerequisite:** None

In this course juniors will be guided through the creation of their senior project while also exploring a variety of bio-related technology topics. Typically, the class will explore bio-related topics on Monday through Wednesday. The balance of the week will be dedicated to the development of an exceptional senior project, which will include an elaborate portfolio, an internship experience in their interest area and their year-end presentations.

This course provides an exceptional learning experience that is fun, fast paced and very rewarding. Students will present their capstone during their senior year.

- Students may satisfy this requirement by enrolling in one of the focus area senior capstone courses or by individualized alternative experience approved by administration.
- Student Work-Based Experiences & Internships can be established in this course.

## Engineering Design & Development (Capstone)

(1 credit, Senior Year)

Prerequisite: Principles of Engineering and/or teacher approval

Credit: **STEM or Elective**

Engineering Design and Development (EDD) is the capstone course in the PLTW high school engineering program. It is an open-ended engineering research course in which students work in teams to design and develop an original solution to a well-defined and justified open-ended problem by applying an engineering design process. Students will perform research to select, define, and justify a problem. After carefully defining the design requirements and creating multiple solution approaches, teams of students select an approach, create, and test their solution prototype. Student teams will present and defend their original solution to an outside panel. While progressing through the engineering design process, students will work closely with experts and will continually hone their organizational, communication and interpersonal skills, their creative and problem-solving abilities, and their understanding of the design process.

## Academic Support

### The Academic Success Course – TASC

*(.5 Credit)*

The Academic Success Course (TASC) is a semester long, .5 credit class. During each class period, students participate in short lessons designed to foster academic independence and success. These lessons are grouped under ten topics that encompass successful learning habits in the high school classroom, and they can be applied in courses across the disciplines. Additionally, class meeting time includes student-teacher check-ins and independent work time.

