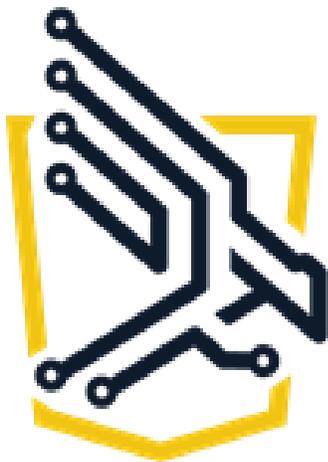


Academy of Computer Science and
Engineering High School

Program of Studies



CREC
**Academy of Computer Science
and Engineering**

2025-2026

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The Comp Sci High Experience

When you come to the CREC Academy of Computer Science and Engineering High School, you get an opportunity you can't get anywhere else. "Comp Sci High," as you'll come to call it, is a one-of-a-kind comprehensive high school with immersive technology education, rigorous academic opportunities, extended learning experiences, expansive AP, Early College Experiences, and a school community that feels like family.

According to the [World Economic Forum](#), 65% of the jobs our students will have don't exist yet. We're here to give you the skills and attributes to succeed in that world. Our core Computer Science program goes beyond what most schools offer as electives, including two full years of coding (in Python and JavaScript), a full year of Product Development, and coursework in Digital Citizenship, entrepreneurship, and elements of digital design. More important, however, are the attributes of critical thinking, problem solving, tenacity, flexibility, empathy, compassion, self-starting, and courage that will help you build the bright future you always dreamed of.

We're also a comprehensive high school, which means we have rigorous and innovative course offerings in English Language Arts, Social Studies, Mathematics, and Science. We have rich offerings in music and visual arts. Our athletic programs, which run throughout the school year, offer sports for every season and every athlete. In addition to a rich core of Computer Science courses, our school's Computer Science theme is woven into courses in every discipline.

As you transition from high school to college and beyond, you'll have the opportunity to choose a pathway in Computer Science, Design, or Entrepreneurship. Each of these pathways presents opportunities for college-level study both on and off campus. You will enjoy opportunities for internships and work-based learning experiences that set you up for success in college and career. We are committed to getting you ready for not just college, but for life.

Most of all, you'll find your voice in our community of learners, and make a difference in the world around you. Comp Sci High is a student-centered, family-oriented learning environment that values teamwork, compassion, collaboration, diversity, and a deep commitment to public service. We need these attributes now more than ever in our ever-expanding digital universe. At Comp Sci High we code, we write, we build, and we engineer with a greater purpose. We will have a positive impact on the world we serve.

Join us.

The Four Pillars of Comp Sci High

The CREC Academy of Computer Science and Engineering program is built around four focus areas which we call our “pillars.” These are:

Computer Science

We will teach coding and software engineering so students have the core skills needed. At Comp Sci High, coding is a core subject alongside Math, Science, English, and Social Studies.

Design

We teach Design Thinking using the Stanford Design Thinking Process. This is the industry standard for bringing new ideas to life in the marketplace.

Entrepreneurship

In addition to understanding the basic operation of a small business, we build the collaboration, creativity, passion, problem solving, open-mindedness, and courage entrepreneurs need.

Social and Community Impact

Everything we create, and everything we do has to have a greater purpose and serve the community in which we live. Social and Community Impact is our legacy, our culture, and it is written in our DNA.

Pathways at Comp Sci High

The purpose of a Pathway is to give students the opportunity to earn job-ready skills and experience that will accelerate their college and career journey. By 11th grade, Comp Sci students will have a choice of three pathways:

Computer Science

This pathway includes advanced study and college-level coursework in programming including Java, Web Design, App Development, and Game Development. Students will develop the coding and thinking skills required to pursue majors and careers in the computer science field.

Design

This pathway includes advanced study and college level coursework in digital design including graphic design, new media design, content creation, and more. Students will develop the skills and artistry to pursue majors and careers in a variety of design disciplines.

Entrepreneurship

This pathway includes advanced study and college-level coursework in business development, entrepreneurship, marketing and communications. Students will develop the leadership skills and business acumen necessary for majors and careers in the business world.

General Course Information

Diversity & Inclusion

Capitol Region Education Council (CREC) Magnet Schools is an intentionally diverse social justice organization whose members work to acknowledge, respect, and empathize with people of all different identifiers, such as race, socioeconomic status, gender identity and expression, education, age, ability, ethnicity, culture, sexual orientation, language, nationality, and religion.

In accordance with CREC's mission of equity, excellence, and success for all through high-quality educational services, our staff and students commit to participate in and support ongoing equity and inclusion programming through curricular and co-curricular offerings, professional learning, and local and national partnerships. Moreover, CREC Magnet Schools staff and students strive to understand and confront the symptoms and causes of systematic oppression—ranging from implicit biases to microaggressions to discriminatory policies, practices and traditions—that benefit privileged groups. While at CREC Magnet Schools, staff and students commit to affirm and honor the lived experiences of others, to willingly challenge inherited beliefs and ideologies, and consequently learn, grow, and serve.

Course Selection, Faculty Advisement, & Course Placement

The scheduling process at the Academy of Computer Science and Engineering requires a cooperative effort among students, families, and the school to select the most appropriate program for each individual from the diversity of courses offered. This course catalog provides a listing of every course offered at CompSci High; however some courses may not be offered every year.

Shortly after the second semester begins, faculty will, in consultation with students, recommend courses for the next academic year. Recommendations will then be made available through PowerSchool for families to review. If there is disagreement on the recommendation, families are encouraged to initiate conversations with their child's current team of teachers.

Students at CompSci High are encouraged to take the most rigorous course available. It is a school-wide goal that all classes are accessible to all students. It should be noted however, that as rigor increases so do the expectations on the student. Faculty and staff will work with students to support them in their classes.

Students who enroll at CompSci High after their ninth grade year will be placed in courses after a thorough review of previous transcripts and in consultation with families when possible.

College Credit Opportunities for CompSci High Students:

UConn Early College Experience (ECE): UConn Early College Experience (ECE) provides academically motivated students with the opportunity to take university courses while in high school. These challenging courses allow students to preview college work, build confidence in their readiness for college, and earn college credits that provide both an academic and a financial head start on a

college degree and other postsecondary opportunities. UConn ECE Instructors are high school teachers certified by the University. UConn ECE Instructors foster independent learning, creativity, and critical thinking - all important for success in college and careers. The Academy of Computer Science and Engineering offers UConn ECE courses in English, Social Studies, Math, Spanish, and Music. To support rigorous learning, UConn academic resources, including library and online classroom access, are available to all ECE Students.

CT State Community College Partnerships

- High School Partnership Program (HSPP):
 - Qualified Connecticut students who have an 80 (B) cumulative grade point average can enroll in up to two accredited college courses at CT State Community College free of tuition and fees each semester during their junior and senior years (up to 8 credits each semester). The cost of textbooks and materials associated with the class(es) is the responsibility of the student.

Advanced Placement:

- Advanced Placement courses are designed to prepare students for the College Board AP exams in May. They are college level courses and the AP exam is required in order to gain AP credit. There is a cost associated with the exam, please speak with your School Counselor for more information regarding this. These courses are very rigorous and require a level of commitment and time that generally greatly exceeds that of College Preparatory or Honors classes.
- AP Exam Policy- Advanced Placement courses are designed to prepare students for the College Board AP exams in May. The AP exam is required in order to gain AP credit through the College Board. All students at CompSci who enroll in AP courses are encouraged to take the AP exam in May. Students who qualify for financial assistance can request a fee waiver from their school counselor.
- CompSci will do our best to honor any request to take an AP Exam. If a student is not registered for the course for which they would like to take the exam, they must consult with the AP Coordinator to determine if the school can support the administration of an exam outside of our course offerings.

Central Connecticut State University Dual Enrollment Program: CCSU has partnered with Comp Sci High to provide our high school students the opportunity to earn college credit after school hours with the CCSU dual enrollment program. Students can register with the CCSU dual enrollment program to take courses on campus or online.

Capstone Credit Requirement

Successful student completion of Capstone is necessary for graduation from a CREC Magnet School. Students will receive 1 credit for completing the required outcomes outlined in the Capstone course. A grade of *Pass* or *Fail* will be recorded on students' high school transcript but will not count toward GPA.

Grade Level Promotion

Promotion to the next grade is based on the total credits earned by the student. In order for students to move to the next grade they must meet the following criteria:

- Students who have accrued 5.5 or more credits are promoted to the 10th grade.
- Students who have accrued 11.5 or more credits are promoted to the 11th grade.
- Students who have accrued 17 or more credits are promoted to the 12th grade.

Class Rank Statement

CREC Magnet Schools do not publish a class rank. Upon request, information can be provided directly to colleges, scholarships, employers, and community partners to support both college and career readiness.

CREC high schools report names to the University of Connecticut in accordance with the Presidential Scholars Award program. CREC high school students who entered a CREC high school beginning in grade nine, and continue through grade 12, may be eligible for the [Presidential Scholars Award](#). Only classes taken on a CREC campus and/or graded by CREC faculty will be counted toward eligibility for the Presidential Scholars Award. The Presidential Scholars Award Winning Students will be determined by calculating the cumulative grade point average at the end of the first semester in grade 12.

CompSci High will communicate Presidential Scholars Award Winners directly to the individual students and their families in late May/early June via email.

Graduation Requirements

	Graduation Requirements (25 credits)
Humanities - 4 English - 3 Social Studies (including Civics & Financial Literacy) - 1 Fine Art - 1 Humanities Elective	9 Credits
Science, Technology, Engineering, and Mathematics (STEM) -4 Mathematics -3 Laboratory Sciences (including Biology) -2 STEM Electives	9 Credits
Fitness, Health and Safety - 1 Physical Education and Wellness - 1 Health and Safety Education	2 Credits
World Language	2 Credits
Mastery Based Examination (Capstone)	1 Credit
Open Electives	2 Credits

Grade Point Average

Letter Grade	Numeric Value	GPA	Honors Weight	AP/ECE Weight
A+	100	4.5	4.75	5.0
A+	96-99	4.4	4.65	4.9
A	93-95	4	4.25	4.5
A-	90-92	3.7	3.95	4.2
B+	86-89	3.4	3.65	3.9
B	83-85	3	3.25	3.5
B-	80-82	2.7	2.95	2.9
C+	76-79	2.4	2.65	2.9
C	73-75	2	2.25	2.5
C-	70-72	1.7	1.95	2.2
D+	66-69	1.4	1.65	1.9
D	63-65	1	1.25	1.5
D-	60-62	.7	.95	1.2
F	40-59	0	0	0

A student's GPA will only include classes that have been taken within a CREC high school program. This would also include credit recovery taken during the summer, if applicable.

High School Honor Roll Protocol

- Students who earn a quarterly GPA average of 3.0 or higher with no Ds or Fs shall earn "Honor Roll" for that academic quarter.
- Students who earn a quarterly GPA average of 3.5 or higher with no Cs, Ds or Fs shall earn "High Honors" for that academic quarter.
- Students who earn a quarterly GPA of 4.0 or higher and earned only grades in the "A" range shall earn "Honors with Distinction" for that academic quarter.

Course Descriptions

Cluster 1: Science, Technology, Engineering and Math (STEM)

SCIENCE

	Required Courses (H)	AP/ECE	Electives
Grade 9	Physics	--	--
Grade 10	Biology	--	--
Grade 11 & 12	Chemistry	--	Anatomy and Physiology Forensics

SC3314 Physics

1 Credit
Honors

Through natural and designed phenomena, this course provides an overview of principles of physics. Students explore how humans use machines to transfer energy from Earth's systems into our communities, with a focus on electricity. Using mathematical reasoning and data analysis, students apply an understanding of forces and Newton's laws of motion to natural phenomena. Applying the understanding of energy and forces, including force diagrams, students continue to apply these ideas to understand momentum and collisions. Students will use computational models and mathematical representations to develop an understanding of gravitation and energy flow between systems. Students explore waves through various models, using mathematical representations to show relationships of frequency, wavelength and speed through various media. Inquiry based learning and required hands-on lab activities are integrated into the students' course work. Physics is required for graduation and fully aligns to the Next Generation Science Standards.

SC3132 Biology

1 Credit
Honors

Prerequisite: Physics

Throughout Biology, students explore phenomena in the life sciences. Students figure out big ideas related to energy flow in ecosystems, carrying capacity and interactions including group behavior. Next, students focus on the flow of energy and matter through the carbon cycle considering the mechanisms of cellular respiration and photosynthesis at various scales. Students build on their understanding of DNA and chromosomes and investigate how variation leads to differences between individuals at cellular and system levels. To follow, students investigate evolution by natural selection and apply these ideas to populations. Students then use their understanding of evolution through natural selection to explore the evidence for common ancestry and figure out how Earth's systems and life co-evolved. Throughout the course, students also build an understanding of human influence on biological systems, including: the importance of biodiversity and how human interactions affect natural systems and how humans can develop solutions to reduce their impact. Emphasis is placed on scientific inquiry and discovery to develop conceptual understanding. Students will be able to think and communicate effectively as scientists by the end of the course. Biology is required for graduation and fully aligns to the Next Generation Science Standards.

SC3212 Chemistry

1 Credit

Prerequisite: Biology

Honors

Through natural phenomena, this course provides an overview of chemical principles and concepts. Students investigate the particulate nature of matter and figure out how energy transfers on the molecular level as well as on the Earth-systems level through radiation, convection, and conduction. Students build an understanding of atoms, molecules, and substances to describe their properties, including patterns of bonding and periodic table trends. Students explore equilibrium in chemical reactions, to explain how chemical processes interact on Earth. Through exploration of endothermic and exothermic processes, students apply chemical understandings to meet societal energy needs. Inquiry based learning and required hands-on lab activities are integrated into the students' course work. Chemistry is required for graduation and fully aligns to the Next Generation Science Standards.

SC3305 Anatomy and Physiology

1 Credit

Prerequisite: Biology

Honors

This course is designed for students interested in biomedical research or the medical field. Students will learn about the structural organization of the human body and the underlying physiological processes that are essential for maintaining homeostasis. In the first part of this course, students will learn the organization of the human body and histology and review basic biology and biochemistry. Organ systems will be covered in depth, with the first semester focusing on the nervous, muscular, skeletal and integumentary systems. Throughout the course, we will consider not only the normal structures and function of the body, but also what happens when the body's normal mechanisms fail and disease results. Students will have in- depth discussions, diagnose case studies, and complete presentations on medical conditions and diseases. Laboratory experiments will include dissection of preserved organs and/or animals.

SC3241 Forensic Science

1 Credit

Prerequisite: Biology

Honors

This full-year elective course provides an introduction to the topics of criminology within the field of forensic science. Study includes the applications of concepts from the areas of Biology, Chemistry, Physics, Entomology, Earth Science, and Anatomy and Physiology to analyze and investigate evidence that may be discovered in a criminal investigation. Major topics include processing a crime scene, collecting and preserving evidence, identifying types of physical evidence, organic and inorganic analysis of evidence, hair, fibers, and paint, toxicology, arson and explosion investigations, serology, DNA, fingerprints, firearms, and document analysis. The main focus of this course will be to emphasize the evidential value of crime scene and related evidence and the services of what has become known as the crime laboratory. This course combines basic theory and real laboratory experiments, creating an experiment based situation for the better understanding of the students. The experiments used reinforce previously learned scientific principles rooted in Biology, Chemistry and Physics. Classroom activities include experiments, projects, case studies and the incorporation of technology.

COMPUTER SCIENCE

		Required	Electives	AP & ECE
Critical Thinking Technology Immersion Program - All 9th and 10th graders				
Grade 9		Computer Science 1 Product Development 1 Digital Futures		
Grade 10		Product Development 2 AP CS Principles	Contemporary Media (see Art)	AP Computer Science Principles (required)
Pathways Program - Write Your Future				
Grade 11 And Grade 12 Pathways require successful completion of <u>Signature Course</u> and at least 2 additional courses in the Pathway	Design Pathway	<u>Contemporary Media</u> (see Art)	Design Pathway: Producing the Series (see Art) Digital Imaging (see Art) Digital Audio Production (See Music) Digital Composition (See Music) Graphic Design (See Art) Contemporary Media (see Art) Digital Media for Influence (see Art)	
	Computer Science Pathway	<u>Introduction to Data Science</u> (See Math)	Computer Science Pathway: Game Design	AP Computer Science A AP Cyber: Cyber AP Cyber: Networking (offered alternate years)
	Entrepreneurship Pathway	<u>Entrepreneurship</u>	Entrepreneurship Pathway: Intro to Marketing Introduction to Data Science (See Math) Web Development for Business	
Grade 12	Capstone	<u>Capstone</u>		

Signature Course (Underlined)

TE1102 Computer Science 1

1 Credit

Ever wonder how apps, websites, and AI systems actually work? Computer Science 1 is your gateway into the world of coding, where you'll learn to think like a programmer and solve problems with technology. Using Python—a language that powers everything from video games to cybersecurity—you'll create your own projects, automate tasks, and explore how coding is shaping the future. No prior experience needed—just bring your curiosity!

TE2005 Computer Science Support

.5 Credit

This course is designed to provide additional support for students who require it after Computer Science 1. Students will be provided with direct support for their current coding classes, plus additional enrichment projects that will develop the necessary skills to succeed in future Computer Science classes.

Teacher Recommendation

TE1003 Digital Futures

.5 Credit

Digital Futures is your roadmap to thriving in the digital world. In this course, you'll learn how to tell powerful stories online, use AI ethically and effectively, and stay safe in a connected world. You'll also develop essential workplace-ready skills, including creating professional documents, spreadsheets, infographics, and presentations. Plus, you'll master the online tools that power today's careers—email, cloud drives, and collaboration platforms. Whether you're looking to build a strong digital presence, sharpen your online communication, or prepare for future careers, this course will set you up for success in the digital age.

TE1000 Product Development 1

.5 Credit

Innovation starts here. Product Development 1 is your introduction to design thinking and problem-solving—essential skills for any field. Using the Stanford Design Thinking Model, you'll learn how to research, prototype, and refine ideas to create digital and physical products that meet real needs. You'll work in teams—just like in professional environments—to tackle challenges, develop creative solutions, and think like an entrepreneur. This course builds critical thinking, collaboration, and leadership skills that will serve you in any career path.

TE2002 Product Development 2

.5 Credit

Product Development 2 builds on your problem-solving and innovation skills, taking them to the next level. In this course, you'll go beyond product creation and explore how business models, marketing strategies, and leadership bring ideas to life. Using the Stanford Design Thinking Model, you'll refine your prototypes, conduct market research, and learn how to pitch and develop real-world solutions. This course strengthens the strategic thinking and teamwork skills needed for success in business, technology, and entrepreneurship.

TE2004 AP Computer Science Principles

1 Credit

Advanced Placement

AP Computer Science Principles is more than just a coding class—it's an exploration of how technology impacts our world. You'll create apps, analyze data, and explore cybersecurity, all while building problem-solving and critical-thinking skills. This course emphasizes creativity, collaboration, and real-world applications of computing. Whether you're interested in tech, business, or design, AP CSP gives you the tools to thrive in a digital future while preparing you for the national AP Computer Science Principles exam in May.

SC3373 AP Computer Science A

1 Credit

Prerequisite AP CSP

Advanced Placement

Within the Computer Science Pathway, 11th & 12th Grade Course

Ever wondered how your favorite apps, games, or websites are built? AP Computer Science A takes you deep into the world of software development using Java, one of the most widely used programming languages in

tech today. You'll learn how to design and build programs, solve real-world problems with code, and develop the skills that power everything from mobile apps to artificial intelligence. Through hands-on coding projects, you'll master concepts like object-oriented programming, data structures, and algorithms—all while preparing for the AP exam in May. If you're interested in tech, engineering, or game development, this course is the perfect way to jump-start your future!

BU3001 Introduction to Marketing

.5 Credit

Within the Entrepreneurship Pathway, 11th & 12th Grade Course

Marketing is everywhere—on your phone, in your favorite brands, and shaping the way businesses connect with customers. In this course, you'll learn the strategies behind successful brands and digital campaigns, gaining hands-on experience in branding, content creation, and audience engagement. You'll explore how companies use social media marketing, search engine optimization (SEO), and targeted advertising to influence customer behavior. But marketing is more than ads—it's about understanding consumer psychology, data analytics, and storytelling to build trust and drive sales. Whether you're interested in running your own business, working in media, or launching a brand, this course gives you the skills to thrive in the fast-paced world of marketing.

TE3005 Principles of Entrepreneurship

1 Credit

Required course within the Entrepreneurship Pathway, 11th & 12th Grade Course

Turn your ideas into action in Principles of Entrepreneurship, a hands-on, work-based learning experience where you'll build real-world business skills. From managing a school-based enterprise to developing and marketing products, you'll gain expertise in business planning, financial management, branding, and customer relations. This course isn't just about starting a business—it's about learning how to think like an entrepreneur. You'll sharpen your problem-solving, leadership, and collaboration skills while exploring what it takes to run a successful venture. Whether you're launching a startup, managing a team, or preparing for the workforce, this course equips you with the confidence and practical know-how to thrive in any career path.

TE2000 Game Design

.5 Credit

Within the Computer Science Pathway, 11th & 12th Grade Course

Ever wonder how your favorite games are made? Discover the power of the Unreal Engine! In this course, you will learn how to create and use assets and bring your ideas to life. Create an experience with your world, your story, and your rules. Using design thinking, you'll solve creative and technical challenges just like industry pros. But game design isn't just about technology—it's about understanding player behavior, ethical game practices, and the social impact of gaming. Through hands-on projects, you'll develop both technical expertise and problem-solving skills, preparing you for a future in game development, software engineering, or digital design.

TE3002 Web Development for Business

.5 Credit

Within the Entrepreneurship Pathway, 11th & 12th Grade Course

Step into the world of digital design and branding through Web Development for Business, a project-based learning course where you'll create authentic online experiences. You'll explore how websites shape a business's identity, learning the fundamentals of digital presence, design strategy, and user experience. Through hands-on projects, you'll develop problem-solving, project management, and communication skills while building a portfolio that showcases your creativity. Whether you're interested in entrepreneurship, marketing, or digital media, this course offers a real-world, skills-based experience that prepares you for the future.

TE3003 AP Career Kickstart Cyber: Networking

1 Credit

Within the Computer Science Pathway, 11th & 12th Grade Course, offered 25/26

Advanced Placement

Prerequisite: AP CSP

There is no pre-set order in taking the AP Cyber offerings. AP Career Kickstart Cyber: Networking parallels a standard first year collegiate introductory networking course. Students blend essential networking concepts with relevant, hands-on problem-solving activities to maximize their understanding of network hardware, logical and physical configuration, the use of protocols to enable reliable and accurate transmission of data between hosts, and relevant security practices that protect the transmission of data within and between computer networks. Students learn the value of configuring devices and networks with a “security-first” mindset to mitigate common vulnerabilities. Students work collaboratively to connect, configure, troubleshoot, and secure devices and networks while building critical thinking and communication skills. The course is designed to support student learning no matter a student’s prior content knowledge or academic skills.

TE3004 AP Career Kickstart Cyber: Cyber Security

1 Credit

Within the Computer Science Pathway, 11th & 12th Grade Course, offered alternate years

Advanced Placement

Prerequisite: AP CSP

There is no pre-set order in taking the AP Cyber offerings. AP Career Kickstart Cyber: Security is a broad introduction to the field of cybersecurity that aligns closely with a standard first-year collegiate introductory cybersecurity course. Students learn about common threats and vulnerabilities and how those combine to create risk. Students study how individuals and organizations manage risk, and how risk can be mitigated through a defense-in-depth strategy. Students explore specific vulnerabilities, attacks, mitigations, and detection measures across a variety of domains, including physical spaces, computer networks, devices, and data and applications. Throughout the course, students consider the impact of cybersecurity on individuals, organizations, societies, and governments. Students also engage in a through-course project in which they investigate emerging trends in cybersecurity, including the rising role of AI, virtualization, hardware & IoT, and how trends like BYOD and WFH are expanding the attack surface.



CREC
Academy of Computer Science
and Engineering

2025-2026

Writing Your Future 11 - 12

Choose a Pathway

Achieve the Core

9

- Computer Science 1 (1)
- Product Dev (.5)
- Digital Futures 1 (.5)

10

- AP Computer Science Principles* (1)
- Product Dev 2 (.5)
- Introduction to Art (.5)

All students take these courses

Computer
Science

Entrepreneurship

Digital Media
Design

Must take a total of 1.5 credits, including course marked with *

- Intro to Data Science*(1)
- Game Design 1 (.5)
- AP Computer Science A (1)
- AP Cyber: Networking (1)
Runs 2025-2026 IRC
- AP Cyber: Cybersecurity (1)
Runs 2026-2027 IRC

IRC = Students may earn the opportunity to achieve an Industry Recognized Credential

Must take a total of 1.5 credits, including course marked with *

- Entrepreneurship* (1) IRC
- Intro to Data Science* (1)
- Web Development for Business (.5)
- Marketing (.5)

IRC = Students may earn the opportunity to achieve an Industry Recognized Credential

Must take a total of 1.5 credits, including course marked with *

- Contemporary Media*
Prereq: Intro to Art
- Producing the Series (.5)
Prereq: Contemp. Media
- Graphic Design 1 (.5)
Prereq: Contemp. Media
- Digital Imaging (.5)
- Digital Audio Production (.5)
- Digital Composition (.5)
- Digital Media for Influence (.5)

*=Signature Course is a pathway expectation

MATHEMATICS

Grade Level	Required - 4 years	Electives	AP & ECE
Grade 9	Algebra 1 or Algebra 2	--	--
Grade 10	Algebra 2 or Geometry	--	--
Grade 11	Geometry or Pre-Calculus or Introduction to Data Science or ECE Statistics	ECE Statistics	ECE Statistics
Grade 12	Pre-Calculus or Calculus or Introduction to Data Science or ECE Statistics	ECE Statistics Financial Algebra ECE Discrete (offered in alternate years)	ECE Statistics ECE Discrete (offered in alternate years)

MA2014 Algebra I

1 Credit
Honors

Based on a discovery approach (learn by doing), this course is designed so that students will discover important algebraic principles blended with geometry, data analysis, discrete mathematics and statistics. This investigative approach, driven by a strong emphasis on conceptual understanding and mathematical relationships, reflects national and state standards. Within the context of real-world data and cooperative learning groups, students will create an algebraic vocabulary; continue to develop oral and written expression; explore graphs and statistical methods to represent and interpret data; extend work with proportions and percents to rates and variation; graph and write linear equations; connect linear equations to parallel and perpendicular lines; solve systems of linear equations; investigate exponential growth and properties of exponents; describe functions and function notation; and model quadratics and find their roots. Active learning will be enhanced with technology-rich instruction including computer software applications, graphing calculator exploration and use of the Geometer's Sketchpad. A TI-83 or TI-84 graphing calculator is required.

MA2102 Geometry

1 Credit
Honors

Prerequisites: Algebra I

Proof Based Geometry emphasizes advanced geometry including axiomatic foundations of the deductive process. The course integrates different elements of three-dimensional figures and algebraic/graphical representation of geometric principles. Problem solving will include the use of graphing calculators. This course develops a structured mathematical system employing both deductive and inductive reasoning. It includes plane, coordinate, and transformational geometry. Proof is developed and the concepts of congruence and similarity are investigated and applied. Algebraic methods are employed to solve problems involving geometric principles.

MA2202 Algebra II

1 Credit

Prerequisites: Algebra I

Honors

Building on the skills, concepts, and vocabulary of Algebra I, this course extends what has been previously learned and introduces students to more advanced topics in algebra. The course is designed to satisfy the Common Core State Standards and to prepare students to compete with peers nationally as well as globally. Students will gain experience with the concepts of functions and inverse functions and investigate polynomial functions, rational expressions and functions, trigonometric functions, exponential and logarithmic functions, and inferential statistics. Use of technology in working with different mathematical models of real world problems is employed to enhance the learning experience. Successful completion of this course provides a foundation for further study in Mathematics as well as providing prerequisite knowledge for courses in other disciplines.

MA1009 Introduction to Data Science

1 Credit

Prerequisites: Algebra I

Honors

Required course in the Computer Science Pathway; Within the Entrepreneurship Pathway; 11th & 12th Grade Course

Data science is one of the hottest industries in the US where professionals analyze “big data”. You will use a variety of technological tools to understand, ask questions of, and represent data through project-based units. You will be a data explorer and develop your understanding of data analysis, sampling, correlation/causation, bias and uncertainty, modeling with data, making and evaluating data-based arguments, and the importance of data in society. This will provide you with opportunities to understand the data science process of asking questions, gathering and organizing data, modeling, analyzing and synthesizing, and communicating. Additionally, students will explore the societal impact of data, learning to navigate the complexities of correlation versus causation and addressing biases and uncertainties inherent in data analysis. This comprehensive introduction to data science will provide students with the foundation to analyze structured and unstructured data, making and evaluating data-based arguments, and preparing them for a future in the data-driven world.

MA2243 Pre-Calculus

1 Credit

Prerequisites: Algebra II

Honors

This course is a rigorous study of functions and their properties. Trigonometric, polynomial, rational, radical, and exponential mathematical functions are studied in detail as well as sequences and series, vectors, parametric, and polar coordinates. Development of integrated mathematical tools for applications to science will include more advanced levels of mathematical modeling. This course provides a strong foundation in functions and equations as they apply to both mathematical functions and models of science while preparing students to pursue calculus.

MA4052 Financial Algebra

1 Credit

Prerequisites: Algebra II 12th grade class

Honors

This course will provide students with a foundational understanding of personal finance, equipping them to make informed decisions that lead to financial independence. Covering a broad range of topics, including money management, education planning, tax issues, financial goal attainment, credit usage, buying decisions, insurance basics, and investments, the program emphasizes practical skills like budgeting, managing bank accounts, assessing risks, and addressing financial challenges. Students engage with state and national educational standards, applying these concepts through real-world scenarios, projects, and case studies, while also developing critical skills for future career success.

2025-2026 is the last year this course will run as a math course; content will be taught in Financial Literacy beginning 25/26.

MA2400 Calculus

1 Credit

Prerequisites: Pre-Calculus

Honors

This course will provide students with an intuitive understanding of the concepts of calculus and experience with its methods and applications. This course introduces students to calculus and includes the following topics: elementary functions; properties of functions and their graphs; limits and continuity; differential calculus (including definition of the derivative, derivative formulas, theorems about derivatives, geometric applications, optimization problems, and rate-of change problems); and integral calculus (including antiderivatives and the definite integral). Active learning will be enhanced with technology-rich instruction including the use of Desmos, an online graphing calculator.

MA2326 ECE Statistics

1 Credit

Prerequisites: Algebra II

ECE

Standard and nonparametric approaches to statistical analysis; exploratory data analysis, elementary probability, sampling distributions, estimation and hypothesis testing, one- and two-sample procedures, regression and correlation. Learning to do statistical analysis on a personal computer and TI 83 OR TI 84 is an integral part of the course. A TI 83 OR TI-84 calculator is required for this class. This course is equivalent to UConn STAT 1100Q Elementary Concepts of Statistics for 4 college credits.

MA3019 ECE Discrete Math

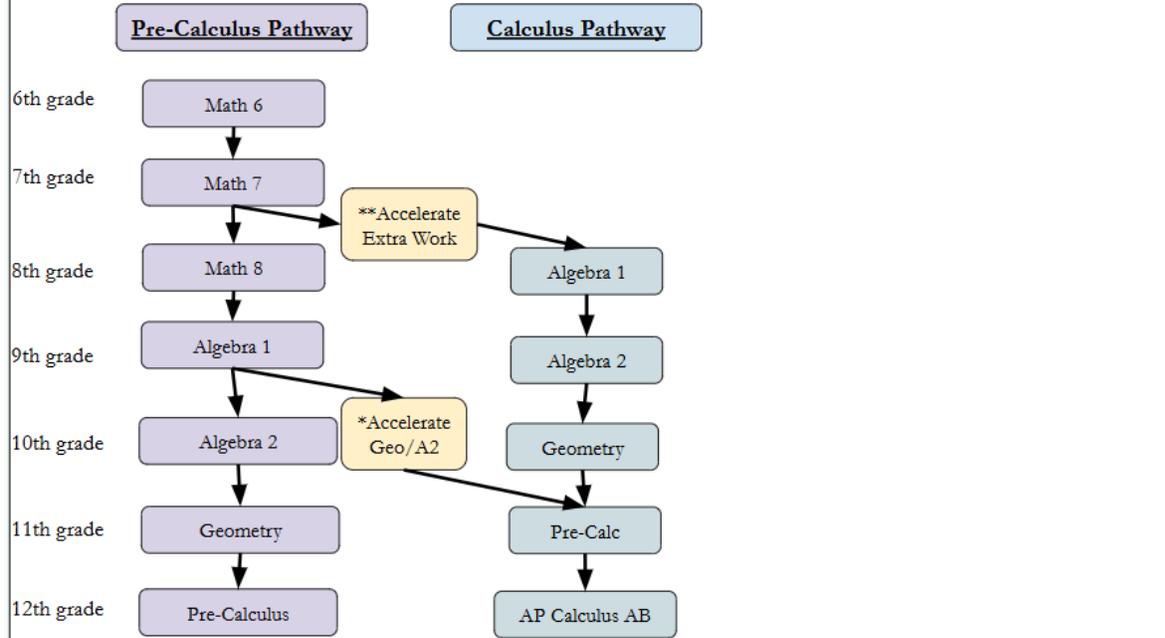
1 Credit

Prerequisites: Algebra II, full year

ECE

Topics chosen from discrete mathematics. May include counting and probability, sequences, graph theory, deductive reasoning, the axiomatic method and finite geometries, number systems, voting methods, apportionment methods, mathematics of finance, number theory. This course is equivalent to UConn MATH 1030Q Elementary Discrete Mathematics for 3 college credits.

CREC CompSci High Mathematics Pathways



School Based Electives: Introduction to Data Science, AP/ECE/Statistics, and/or ECE Discrete Mathematics

- Students can accelerate by:
- 1) ****Completing extra 8th grade work during the core Math 7 allows students to move to Algebra 1 as an 8th grader**
 - 2) ***Doubling Up by taking Algebra 2 & Geometry concurrently during the school year allows students to take Pre-Calculus as a junior.**
 - 3) ***Taking Geometry in the summer and Algebra 2 in the school year allows students to take Pre-Calculus as a junior.**

Cluster 2: Humanities

LANGUAGE ARTS

	Required - 4 years	Electives	ECE
Grade 9	English I	--	--
Grade 10	English II	--	--
Grade 11	English III or ECE	Writing Center	ECE Introduction to Academic Writing
Grade 12	English IV or ECE or two of the following: <ul style="list-style-type: none"> ● Journalism ● Public Speaking ● Diverse Voices in Literature ● Creative Writing 	Writing Center Docudrama	ECE Academic Writing & Multimodal Comp

EN1372 English Language Arts I

1 Credit
Honors

Students enrolled in this course will study world literature through a variety of themes. It will encourage the students to think critically about literature, connect to their personal experiences and make connections across disciplines. The course will also involve the students in a variety of writing experiences to demonstrate their knowledge of the content and their ability to develop their skills in this area. Technology will be integrated to enhance the students' knowledge of world literature and culture.

EN2402 English Language Arts II

1 Credit
Honors

The emergence of voice is integral in understanding the power, authority, and social advancements within societies. Power is gained, maintained, and often restricted through language and the expression of individual and collective voices. Along with the power of voice comes responsibility: the obligation to act justly and the spirit to better the world around. When used properly, strong voices have given rise to leadership, activism, empowerment, and liberation. Unfortunately, the responsibilities of voice are not always fulfilled. Often, voice and the associated power are corrupted, leading to oppression and injustice. In "The Power of Voice," students will study voices from around the globe and across America. Reading classical texts, modern works, current periodicals, and diverse genres will add to student knowledge of global voices. In addition, students will write and create their own works to help discover and develop their own voices and unleash the inherent power to better the world around them. The ultimate goal of the course is to heighten the students' understanding of the powers, dangers, and endless possibilities of voice.

EN3401 English Language Arts III

1 Credit
Honors

American Literature provides students with the opportunity to explore literature from many cultures within its historical context. The course will examine how cultural and literary archetypes exist in a multicultural and historical context. Students will learn how literature passes on cultural values and explains natural events. Students will continue to develop their effective communication skills in the areas of reading, writing, listening,

speaking, and viewing. Technology will be integrated to enhance the students' knowledge of world literature and culture. This course will encourage students to think critically about literature, make connections across disciplines, and connect to their personal experiences in order to succeed in their academic studies and their future careers. SAT Verbal skill practice will be integrated into the course.

EN1004 ECE Introduction to Academic Writing 1 Credit

Prerequisite: English I and English II

ECE

This course serves as an intense introduction to the foundations of various types of writing formats. It focuses on the development of the reading and writing skills essential to university work. This course is equivalent to UConn ENGL 1004 Introduction to Academic Writing for 4 college credits.

EN4052 English Language Arts IV 1 Credit

Honors

This course is designed to assist students in the development of their creativity, as well as their college writing abilities. By reading and discussing the work of selected authors, students will add to their knowledge of characterization, plot, setting and point of view. Students will apply this knowledge while experimenting with different writing genres and discovering their own unique writing styles. Students will also learn and practice college level writing skills, to be better prepared for the rigors of college writing. An assortment of mini-lessons will be aimed at improving grammar and mechanics. An emphasis will be placed on peer-revision as students work together to hone both their creative and academic writing skills. In addition to completing numerous written assignments and individual portfolios, each student will contribute to a class anthology and be encouraged to prepare at least one piece for submission to a publishing outlet or writing contest.

EN3000 ECE Academic Writing & Multimodal Composition 1 Credit

Prerequisite: English I and English II and English III, Recommend take EN1004 first

ECE

Instruction in academic writing through interdisciplinary reading. Assignments emphasize interpretation, argumentation, and reflection. Revision of formal assignments and instruction on grammar, mechanics, and style. This course is equivalent to UConn ENGL 1007 Seminar & Studio in Writing & Multimodal Composition for 4 college credits.

EN1312 Creative Writing .5 Credit

12th Grade Course, semester

College Prep

This course provides an introduction to the writing of poems, stories, plays, and creative non-fiction, with related readings. Students submit writing for class discussion with the aim of creating an original collection of creative work in several genres.

EN1222 Journalism .5 Credit

12th Grade Course, semester

Honors

This course serves as an introduction to the important field of journalism. Students will dive into news reporting and storytelling about real events taking place in their school and communities. Students will learn all the skills, principles, and ethics that form the foundation of journalism and will put them into practice to create news across different mediums, like print and digital articles, audio stories, and video broadcasts.

EN3501 Public Speaking .5 Credit

12th Grade Course, semester

This course will explore the nuances of verbally communicating to and with an audience. Students will examine the basic elements of good orating through a wide lens of mediums such as presenting to a live audience, social media influencing/podcasting, effective business communications and group discourse. Students will develop, improve and gain confidence in their planning and delivery skills.

EN4002 Diverse Voices in Literature

.5 Credit

12th Grade Course, semester

In this course, students will be exposed to literature in its role as a cultural artifact. They will explore issues of difference, identity and literary representation through careful analysis of texts drawn from a wide range of voices and multiple genres. By the end of the semester, students will be able to demonstrate an ability to analyze multiple text styles and develop a critical vocabulary that will enhance their reading and writing skills in approaching a wide range of human differences.

EN3011 Writing Center

.5 credit

11th & 12th Grade Elective, semester

This unique course teaches students how to create and run a student driven writing center, modeled after the UConn Writing Center Workshop. Students will be trained to lead the writing center and then move into staffing the writing center and providing assistance to peers at CompSci High.

TH1081 Docu-Drama

.5 Credit

11th & 12th Grade Elective, semester

A docudrama (or documentary drama) is a genre of radio and television programming, feature film, and staged theatre, which features dramatized re-enactments of actual events. On stage, it is sometimes known as documentary theatre. Students will learn about this unique genre.

SOCIAL STUDIES

	Required	Electives	AP/ ECE
Grade 9	US History		
Grade 10	AA/Black & PR/Latinx History		
Grade 11	Civics Financial Literacy		
Grade 12	<i>One credit required</i>	<ul style="list-style-type: none"> ● Psychology ● Sociology ● AA/Black & PR/Latinx History 	ECE Human Rights & Global Problem Solving

SS4023 United States History

.5 Credit
Honors

American History is a course designed to take students on an exploratory journey of the history of North America from post-Civil War to present. Students will investigate history in chronological order through various themes such as expansion, race relations, geography, government, education, immigration, arts & entertainment, transportation and economics. Students will have an opportunity to look at history from the vantage point of an everyday citizen alongside a more traditional approach of studying significant historical figures and events.

SS2001 African American, Black, Latinx, and Puerto Rican Studies

1 Credit
Honors

10th grade required course, 12th grade elective

The African American, Black, Latino, and Puerto Rican Course of Studies is a one credit, year-long elective in which students will consider the scope of African American, Black, Latino, and Puerto Rican contributions to U.S. history, society, economy, and culture. 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 United States. 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. This course will contribute to the critical consciousness and civic-mindedness competencies of a twenty-first century graduate.

SS2005 Civics

.5 Credit
Honors

Civics is a required course for graduation. The focus of this course is to prepare students to exercise their political responsibilities as thoughtful and informed citizens. Civics provides a basis for understanding the rights and responsibilities of being an American citizen and a framework for competent and responsible participation in American government. Emphasis is placed on the historical development of government and

political systems, and the importance of the rule of law; the United States Constitution; Federal, State and local government structure; and rights and responsibilities of citizenship. Students will actively investigate local, state and national issues, read and participate in discussions, and develop informed opinions using a variety of writing forms. This course prepares students for college level analytical writing by teaching key writing skills throughout the curriculum.

SS3002 Financial Literacy .5 Credit
11th Grade only offering

This course teaches students personal finance concepts. Topics include banking, investing, credit, paying for college, insurance, budgeting, taxes, and more. Comparing and contrasting features of different options gives students a process to follow in making financial decisions. Having worked with these topics, students will be well positioned to be successful consumers in the credit and financial marketplace.

SS3262 ECE Human Rights and Global Problem Solving 1 credit
For 25/26 12th grade only offering ECE

Exploration of central human rights institutions, selected human rights themes and political controversies, and key political challenges of contemporary human rights advocacy. This course is equivalent to UConn HRTS 1007 Introduction to Human Rights for 3 college credits.

SS1302 Sociology .5 Credit
For 25-26 school year 12th grade offering only Honors

Sociology is the systematic study of social behavior and human groups. The course will examine the patterns of human behavior by studying the primary institutions found in all human societies by identifying the membership groups various people belong to. The concepts of social norms, values, status, class ranking, racial, ethnic, gender, and religious elements will form the core basis of the course. The class will also explore the ever changing societal issues of crime, aging, poverty, deviant and anti-social group activities, urbanization, drugs, and alienation. It is the desire of the course to assist the student in developing problem solving skills and a rational approach to the world in which they inhabit.

SS4371 Psychology .5 Credit
For 25-26 school year 12th grade offering only Honors

This course will cover the curriculum in psychology. Students will learn about the history of psychology as a way to both explain the range of human behavior that is considered normal and to establish criteria for identifying that which is abnormal. Many approaches have come into fashion and faded away during this history and we'll learn about what influenced them and what benefits some of these approaches brought to the field. One of the most important advancements came when psychologists began to explore the methods being independently developed and employed by scientists studying behavior in animals. From this historical foundation, students will evaluate the modern study of behavior and mental processes in human beings and other animals and how this knowledge is applied in the various major subfields in psychology. Students will also learn about the ethics and methods psychologists use in their science and practice.

FINE ART, DESIGN, AND MUSIC

	Required	Electives	AP/ ECE
Grade 9	Intro to Art (just once)	Chorus (can repeat) Band (can repeat) World Music Connections	
Grade 10	Intro to Art (just once)	Chorus (can repeat) Band (can repeat) World Music Connections Contemporary Media	
Grade 11	For CS Design Pathway Students: <u>Contemporary Media</u>	Chorus (can repeat) Band (can repeat) World Music Connections Contemporary Media Ceramics Printmaking Graphic Design Digital Imaging Producing the Series Digital Composition Digital Audio Production Digital Media for Influence	ECE Popular Music & Diversity
Grade 12	For CS Design Pathway Students: <u>Contemporary Media</u>	Chorus (can repeat) Band (can repeat) World Music Connections Contemporary Media Ceramics Printmaking Graphic Design Digital Imaging Producing the Series Digital Composition Digital Audio Production Digital Media for Influence	ECE Popular Music & Diversity

CS Design Pathway requires successful completion of Signature Course (Underlined) and at least 2 additional courses in the Pathway (See CS Courses)

GHI103 Intro to Art

.5 Credit

Required for Computer Science Pathways, 9th & 10th Grade Course

College Prep

Intro to art is an introductory visual arts class. This is the first class that students will take before taking any other elective course. Students will learn a variety of basic level skills and techniques, as well as the elements and principles of art and design. Media that will be explored will be drawing media (charcoal, pencils, pastels, colored pencil), painting media (watercolor, acrylic), collage, and mixed media. Students will learn about the use of the elements of art as artists use them (line, shape, color, space, value, texture, and form) and the

principles of art (unity, pattern, balance, emphasis, variety). These foundational skills will prepare students for all other art electives.

AR3007 Contemporary Media

.5 Credit

Prerequisite for several courses in the Design Pathway, 10th, 11th & 12th Grade Course,

Prerequisite: Intro to Art

Required course for Design Pathway

In today's world, media is power—and in Contemporary Media, you'll learn how to create, analyze, and influence digital content. This course takes you inside the world of multimedia production, digital storytelling, and interactive content creation, where you'll build skills in visual design, audio production, and online media strategy. You'll also explore the ethics and impact of media, learning how digital platforms shape public perception, culture, and business. Whether you're interested in content creation, media production, or digital marketing, this course gives you the tools to create, critique, and thrive in the media-driven world.

VA2009 Printmaking

.5 Credit

Prerequisite: Intro to Art; 10th, 11th, 12th grade course, priority scheduling for 11th & 12th

College Prep

Printmaking is an art elective that builds on the skills learned in Intro to Art and other art elective courses. Students will learn beginner to intermediate printmaking techniques, such as monoprints, relief printmaking, reduction prints, etching, white-line, and screen printing. All processes will be hand-pressed. Students will build on the various processes and techniques to create a series of prints and learn the unique discipline of creating, carving and printing a block.

AR6031 Ceramics

.5 Credit

Prerequisite: Intro to Art; 10th, 11th, 12th grade course, priority scheduling for 11th & 12th

College Prep

Students will learn the foundational skills needed to work with clay. They will be introduced to handbuilding techniques and possibly the potter's wheel. They will practice and master the skill of pinch, slab and coil to build a variety of sculptures that are both form and/or functional. Students will also learn how to maintain the ceramics studio, use different surface and decorative techniques, and the tools and materials. This course will prepare students for Ceramics II.

AR6032 Ceramics II

.5 Credit

Prerequisite: Ceramics I, May be offered in alternate years

College Prep

Students will gain knowledge and skills in the ceramics studio that build on the foundational skills in Ceramics I. Students will master the use of the potter's wheel and all three handbuilding techniques. Students will also learn a variety of surface decoration techniques, including different types of glazes, sgraffito, and experimental techniques.

AR3006 Digital Imaging

.5 Credit

Prerequisite: Intro to Art Desired

Within the Design Pathway, 11th & 12th Grade Course

This immersive, one-semester course propels students into the dynamic world of digital imaging, blending the artistry of photography with the innovation of digital technology. Our mission is to empower students to effectively communicate ideas and information through the lens of digital, film, still, and video photography. Emphasizing storytelling, marketing, influencing, and business applications, this course offers a comprehensive exploration of digital imaging, preparing students for the evolving demands of the digital space.

TE3030 Digital Media for Influence

.5 Credit

Within the Design Pathway, 11th & 12th Grade Course

Prerequisite: Contemporary Media

Digital Media for Influence is all about mastering the art and strategy of digital storytelling. In this course, you'll learn how to craft compelling content that captures attention and drives action, just like the pros in social media marketing, branding, and digital influence. You'll design eye-catching visuals, persuasive copy, and engaging short-form videos, while exploring how influencers and brands build loyal audiences. But it's not just about creativity—you'll also learn the psychology behind audience engagement, ethical media practices, and data-driven strategies to make content truly impactful. By the end of the course, you'll have a portfolio of professional-level digital content and campaign strategies, preparing you for careers in media, marketing, and beyond.

AR6071 Graphic Design

.5 Credit

Within the Design Pathway, 11th & 12th Grade Course

Prerequisite: Contemporary Media

College Prep

Graphic Design is where creativity meets technology. In this course, you'll learn how to design logos, branding materials, digital illustrations, and marketing assets using industry-standard tools like Photoshop and Illustrator. You'll explore the principles of visual communication, typography, and composition, while also developing hands-on skills in digital photography and image editing. Whether you're interested in advertising, social media content, or digital art, this course builds a professional portfolio and gives you the design skills that are in demand across industries.

AR2565 Producing the Series (Digital Video Content)

.5 Credit

Prerequisite: Intro to Art, Contemporary Media

Within the Design Pathway, 11th & 12th Grade Course

From concept to screen, Producing the Series is a hands-on filmmaking experience where you'll learn how to develop, direct, and produce digital video content for today's media landscape. You'll explore cinematography, editing, and screenwriting, analyzing how different genres and styles impact storytelling and audience engagement. This course also dives into media ethics, visual storytelling, and the business of digital content creation, ensuring you not only create high-quality productions but also understand their real-world impact. With a focus on short-form digital content, you'll develop projects that are relevant to streaming platforms, social media, and emerging media industries. Whether you see yourself behind the camera, in the editing suite, or leading a production team, this course gives you the creative and technical expertise to make your vision a reality.

MU1822 Band

1 Credit

College Prep

This performance-based instrumental music group is for students interested in continuing to play a band instrument and perform in public. This course is designed to continue to develop students' abilities to play brass, woodwind, string, and percussion instruments, covering a variety of musical styles. There will be opportunities for both ensemble and solo work. Students may participate in pep band and concert band performances. A wide variety of music will be studied and performed throughout the year. Attending all full band performances is a course requirement, including rehearsals, concerts, and other performances. This ensemble is open to all students grades 9-12.

****Please note – students must be able to play an instrument prior to joining the band/orchestra.***

MU1812 Chorus

1 Credit
College Prep

This course provides the opportunity to sing a variety of choral literature styles for men's and/or women's voices and is designed to develop vocal techniques and the ability to sing parts. There will be an opportunity for both ensemble and solo work. This ensemble is open to all students grades 9-12. Students who are enrolled are required to participate in all choral activities including rehearsals, concerts, and other performances

MU1101 World Music Connections

.5 Credit
College Prep

World Music Connections will expose students to a wide variety of musical styles and cultures while offering students the opportunity to create, perform, listen to and analyze music from these diverse cultures, as well as, the stage and film. Students will learn that every musical work is a product of its time and place, although some works transcend their original setting and continue to appeal to humans through their timeless and universal attraction. In addition, students will learn to read music as they study introductory piano and melody chimes.

AR4002 ECE Popular Music & Diversity in Society

.5 Credit
ECE

An introduction to popular music and diversity in America: jazz, blues, Top-40 pop, rock, hip-hop, and other genres. Musicians and their music studied in the context of twentieth-century and contemporary American society, emphasizing issues of race, gender, class, and resistance. This course is equivalent to UConn MUSI 1003 Popular Music and Diversity in American Society for 3 college credits.

MV1073 Digital Composition

.5 Credit

Within the Design Pathway, 11th & 12th Grade Course

Whether you dream of producing your own music, scoring films, or shaping the next viral sound, Digital Composition gives you the tools to bring your musical ideas to life. You'll explore music production, composition, and sound design, using industry-standard digital tools to create original pieces across various genres. From recording and editing to mixing and notation, this course covers the essentials of modern digital music creation. You'll also develop critical listening and collaboration skills, learning how music influences media, branding, and storytelling. Whether you're an aspiring composer, producer, or digital artist, this course builds the technical and creative expertise to take your music to the next level.

CW1046 Digital Audio Production

.5 Credit

Within the Design Pathway, 11th & 12th Grade Course

Digital Audio Production puts you in the producer's seat, where you'll create soundscapes that bring stories, games, and media to life. Whether you're mixing soundtracks for videos, designing audio for interactive experiences, or producing original content for podcasts, you'll develop the skills to shape how people hear and experience digital media. You'll explore sound design, editing, mixing, and audio storytelling while working with the same tools used by industry professionals. This course also dives into the power of sound in culture, media, and storytelling, helping you understand how audio influences emotions, brands, and digital spaces. Perfect for future producers, game designers, content creators, and audio engineers, this course gives you the creative and technical edge in today's media-driven world.

Cluster 3: World Language

	Required - 2 years in HS	Electives	ECE
Grade 9	Spanish 1 or Spanish for Heritage Speakers 1 or Spanish 2		--
Grade 10	Spanish 2 or Spanish for Heritage Speakers 2 or Spanish 3 or Spanish for Heritage Speakers 3		--
Grade 11		Spanish 3 or Spanish for Heritage Speakers 3 Spanish 4	
Grade 12		Spanish 4	ECE Introduction to Latin American and the Caribbean.

SP5012 Spanish I

1 Credit
Honors

Students enrolled in this beginning course of study participate in thematic units that promote effective communication and improved oral and written proficiencies through a variety of instructional strategies and authentic assessments. Students become effective communicators in the present tense through purposeful listening, speaking, reading, or writing activities. Students participate in authentic exchanges of information for a real purpose between people, such as discussing pastimes, personality traits, school life, ordering food in a restaurant, and stating the locations of people, places, and objects. Students experience the history, geography, and cultural perspectives of Spain, Central and South America.

SP5112 Spanish II

1 Credit
Honors

Prerequisites: Spanish I or teacher recommendation

Students enrolled in this course of study continue to participate in thematic units that promote effective communication and improved oral and written proficiencies through a variety of instructional activities and authentic assessments. Students continue to build upon their effective communication skills through purposeful listening, speaking, reading and writing activities. Students participate in authentic exchanges of information for a real purpose between people, such as describing classroom objects, extracurricular activities, and special events, and inquiring and giving directions. Additional authentic thematic units include discussing emergencies and injuries. Students communicate in the past and present tenses, and they experience the history, geography, and cultural perspectives of Spain. Literature in the form of poetry, fables and short stories is introduced.

SP5212 Spanish III

1 Credit

Prerequisites: Spanish II

Honors

Teacher Recommendation

The Spanish III course is designed to provide a review of the fundamentals covered in Spanish I and II followed by further development of their reading, writing, listening and speaking abilities through a variety of activities. Much of the class is conducted in Spanish and students are expected to take many risks with the language. The focus of the class shifts from vocabulary expansion and the basics of grammar to building a more in depth understanding of how these tools are used in everyday communication and actually putting them into practice in real life situations. Students are introduced to advanced aspects of the language such as command forms, distinguishing between the preterite and imperfect, the future tense and situational use of the subjunctive. Students are exposed to many of these aspects in Spanish I and II, however this course works to give students more practice using these skills in parallel with one another to produce fluid language. Students will practice and develop their skills by reading short stories, articles and dialogues; writing stories, compositions, and longer dialogues which employ learned grammatical concepts and vocabulary; reciting dialogues, speeches, stories, and poetry. They will continue to explore Spanish culture in an increasingly thoughtful manner looking at the relationships of Spanish speaking countries with the United States as well as understand the history behind these relationships.

SP5312 Spanish IV

1 Credit

Prerequisites: Spanish III

Honors

Teacher Recommendation

Spanish IV is for students who want to become proficient in the language. The class is taught exclusively in Spanish and participation is a necessity. The course will review tenses previously taught in levels 1-3: present, preterite, commands, imperfect, future, conditional and subjunctive. This class will deepen the understanding of all tenses as well expand higher level vocabulary needed to express thoughts, emotions and ideas in a meaningful manner. Students will speak exclusively in Spanish, review and refine grammatical skills in Spanish through reading and writing, read and discuss original work in Spanish (short stories, novels, newspapers, etc.) and continue to deepen the appreciation of the Spanish speaking culture and people outside of and within the United States.

WL3503 Spanish for Heritage Speakers I

1 Credit

Teacher Recommendation Only

Honors

This course is designed to continue to develop and challenge students' ability in speaking, reading, writing, listening, and cultural understanding in Spanish. Spanish-speaking students are able to study Spanish formally in an academic and creative setting in the same way native English-speaking students study English language arts. Students will gain confidence using Spanish to express their own thoughts on social and academic themes, interact with other speakers of the language, understand oral and written messages, make oral and written presentations, and reflect on language variation. Students will be able to understand the material presented on a variety of topics related to contemporary events and issues in Hispanic communities.

WL3504 Spanish for Heritage Speakers II

1 Credit

Teacher Recommendation Only

Honors

This course is the continuation of Spanish for Heritage Speakers I. Students will build upon their current language skills to develop language and cultural literacy, as well as their own creative expression following a language arts approach. This course will continue to guide students in developing a deeper appreciation for their own cultural heritage while recognizing the diversity within the Latino community. Reading, both as a class and independently, is a core component of the course, including newspaper articles, short stories, and novels. Students work to further develop their Spanish literacy and academic language skills, to learn more about their language and cultural heritage, and to critically view and evaluate media resources and websites.

WL3505 Spanish for Heritage Speakers III

1 Credit

Teacher Recommendation Only

Honors

Spanish 3 for Heritage Speakers follows the language mechanics of Spanish 3 and 4 in the same year, while placing a strong emphasis on authentic sources and content. This is a course which targets needs specific to Heritage Speakers. Students in this course will be using more complex reading and writing skills. Students who are successful in this course will have the skill necessary to enter ECE Intro to Latin America.

WL3000 ECE LLAS 1190: Introduction to Latin America and the Caribbean

1 Credit

Prerequisite for 25/26 is Spanish Heritage Speaker 3 or with teacher recommendation

ECE

It is an interdisciplinary gateway course designed to introduce students to the issues and themes that have shaped Latin American society and Culture. The course provides a portrait of a region in broad strokes.. The course includes considerations of geography, indigenous peoples, colonization, nation formation and migration; society, politics, and economics; the cultures of contemporary Latin America and their place in today's world. In addition, the course considers the hemispheric influence of the United States in Latin America and the region's perspective on this relationship. This course is equivalent to UConn LLAS 1190 Introduction to Latin America for 3 college credits.

Cluster 4: Fitness, Health, Safety

	Required	Electives
Grade 9	Physical Education - Exercise & Personal Wellness 1 Health 1	--
Grade 10	Physical Education - Exercise & Personal Wellness 2 Health 2	--
Grade 11	–	Obstacles & Adventures Strength & Conditioning
Grade 12	–	

PE9001 Exercise & Personal Wellness 1

.5 Credit

Intended for 9th Grade

College Prep

Through this course of study students will be empowered to make choices, meet challenges, and develop positive behaviors in fitness, wellness and movement activity for a lifetime. Topics that will be covered include: adventure education, lifetime activity, fitness and wellness, skill development, rhythm, movement, and dance.

PE9101 Exercise & Personal Wellness 2

.5 Credit

Prerequisites: Exercise & Personal Wellness 1

College Prep

Intended for 10th Grade

Through this course of study students will build upon knowledge and skills gained in Exercise & Personal Wellness 1, as they are empowered to make choices, meet challenges, and develop positive behaviors in fitness, wellness and movement activity for a lifetime. Topics that will be covered include: adventure education, lifetime activity, fitness and wellness, skill development, rhythm, movement, and dance.

HE1001 Health 1

.5 Credit

College Prep

Health is designed to enable students to be responsible, respectful, informed and capable when making decisions which would impact the well-being of themselves and others. Topics that will be covered include: nutrition, diseases and disorders, mental and emotional health, drugs, alcohol, tobacco, growth and development, and healthy and safe relationships.

HE2500 Health 2

.5 Credit

Prerequisites: Health 1

College Prep

This course meets the new CT standards and includes information and learning experiences to support and enhance their abilities to access, understand, appraise, apply, and advocate for health information and services to maintain or improve their own health and the health of others. Students will learn skills to improve focus, attention, concentration, and on-task behavior as well as skills and knowledge that encourage lifetime healthy behaviors and goal setting.

PE3001 Obstacles and Adventure

.5 Credit

Prerequisites: Exercise & Personal Wellness 1&2

11th or 12th Grade Course

College Prep

Students who take this course will partake in adventures that generate excitement and motivation to be physically active for life. Activities will include obstacle courses, climbing walls, self-defense training, outdoor sports and fitness programs that support participation in these types of activities. Students will set personal best goals, improve their confidence in their physical abilities while contributing to a positive social experience.

PE4221 Strength & Conditioning

.5 Credit

Prerequisites: Exercise & Personal Wellness 1&2

11th or 12th Grade Course

College Prep

This course will allow students to learn about and create personal fitness plans to fit the needs of all individuals. They will explore various fitness programs and research a variety of training regimes. Students will learn safety and technique on fitness equipment for strength building and life-long fitness habits. Students will use the equipment in the school fitness center.

Cluster 5: Capstone / Internship

CP4571 Capstone

1 Credit
College Prep

The Capstone Project portion of this course is designed to be a cumulative experience of a student's high school years that demonstrates in-depth learning in a variety of ways. Students have the opportunity to use their personal interests, abilities, skills and special talents to create and present authentic projects. These projects are research-based and offer students the chance to demonstrate their knowledge and understanding of their chosen topic and to demonstrate the essential skills for a student graduating from high school. The Capstone Project involves each student choosing a research topic and research question, writing a proposal, extensive research of the chosen topic, designing and bringing the topic to fruition and publicly and formally presenting the findings to a panel of faculty, community members and students.

For the 2025-2026 school year, we will offer the opportunity for students to bring Computer Science Pathway projects for consideration as Capstone projects. This will serve as a Beta-test for the following school year as we work to fully incorporate the Computer Science theme into our Capstone process.