



PROGRAM OF STUDIES

2023-2024

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TABLE OF CONTENTS

Program of Studies	1
Vision, Mission, and Theme	4
Vision	4
Mission	4
Theme	4
Instructional Method	5
Hartford System of Schools Mission	5
Nondiscriminatory Policy	5
Student Academic Expectations	6
Technology & Design Graduation Requirements	6
Credit Requirements for Promotion	6
Middle Grades Coursework and High School Credit	6
World Language Credit for speakers of languages other than English	8
Grading and GPA	9
Class Rank (from the HPS Program of Studies)	9
Credit Requirements for Graduation	11
Minimum Graduation Requirements for Classes 2021 and 2022	11
Minimum Graduation Requirements for Class of 2023 and Beyond	11
Definition of Career and Life Skills Elective (from CSDE The Connecticut Plan)	12
Definition of Humanities Elective (from CSDE The Connecticut Plan)	12
Definition of STEM Elective (from CSDE The Connecticut Plan)	12
Service Learning Requirement	12
Capstone Experience	12
Student Success Plans & Naviance	12
SAT	13
Themed Project Portfolio (*waved for 2020-21 due to covid)	14
ePortfolio Requirements	15
Course Levels	16
Access to College and Career Readiness Opportunities	16
Advanced Placement (AP)	16
Dual Enrollment (DE)	16
Concurrent Enrollment (CE)/Early College Experience (ECE)	17
Internships	17
	2

Credit Recovery	17
Credit Enrichment	17
Course Selection Process	17
Post-Secondary Information	18
Four-Year Colleges and Universities	18
Two-Year Colleges/Associate Degree Programs	18
Seal of Biliteracy	18
Additional College Credit Opportunities	20
ECAMP: Goodwin Early College Advanced Manufacturing Program	20
Capital Community College High School Partnership Program (HSPP)	20
University of Hartford College Now	20
NAFTrack Certified Hiring	22
Course Offerings at Pathways Academy of Technology and Design	23
ENGLISH	23
MATHEMATICS	27
PHYSICAL EDUCATION & HEALTH	31
SCIENCE	33
SOCIAL STUDIES	35
Technology and Design Education	38
Freshman Technology Rotation	38
Manufacturing Track	39
Computer Science Track	41
Gaming & APP Development Track	43
Digital Video & Media Track	44
Design Track	45
WORLD LANGUAGES	48

VISION, MISSION, AND THEME
PATHWAYS POWER²

**Professional
Opportunities
Work-Ethic
Empowerment
Respect & Responsibility**

At Pathways we embrace our NAF Model as we are a community of **Professionals** in all that we do; we have, provide, and seize **Opportunities** for all students and staff to learn at the highest level, and have experiences that will positively impact their future and engage them in school, we promote a strong **Work-ethic** in everything we do in and out of school, we **Empower** our students and staff to be leaders in their school, in their community, and to have voice; and that we do this all by **Respecting** ourselves, our peers, our students, our staff, our families, and our school through our **Responsibility** to be positive and productive members of our community.

Mission

Pathways Academy of Technology and Design seeks to accomplish its vision through:

- Employing innovative and collaborative learning through the use of cutting-edge technology and Project-Based Learning (PBL)
- Providing rigorous academic curricula focusing on high achievement
- Fostering a belief that all students can achieve
- Establishing a team of dedicated and knowledgeable professionals willing to grow with the changing technological world
- Developing partnerships with the business community that allow students to explore work-based experiences such as mentoring, internships, and career exploration

- Reducing racial, ethnic, & economic isolation of students in urban, suburban, and rural schools
- Encouraging parents, students and teachers to work together to create a positive and safe learning environment

Theme

Pathways Academy of Technology and Design offers a rigorous academic program utilizing the tools of technology and emphasizing technology-related skills as well as career exploration and preparation for higher education and/or employment in the field of technology. Students will have exposure in all areas of technology. Students have the opportunity to participate in job shadowing and internship positions in the area of technology. The tools of technology are utilized to help students achieve and/or maintain high expectations set by the magnet school.

INSTRUCTIONAL METHOD

Students are most successful when they learn within a collaborative culture. Project-Based Learning (PBL) is the instructional method Pathways uses to help deliver our curricula. PBL is centered-around a driving question or challenge that a teacher proposes to his or her class. The students use their innovation and inquiry skills to investigate the problem. The learning becomes quite authentic when students decided on a publicly presented product. PBL provides many opportunities for student voice and choice as well as feedback and revision. Students must have 21st century skills; including the skills to collaborate and communicate effectively in order to be successful in completing a project. These requirements make learning real-life, thus enhancing the level of commitment and buy-in from students. Students can then take these skills and more efficiently adapt to college and a career.

HARTFORD SYSTEM OF SCHOOLS MISSION

The Board of Education will provide all students with high quality distinctive high schools in which students can attain a Hartford Public School high school diploma that reflects a standards-based college-ready curriculum designed to meet the high educational outcomes of the State of Connecticut and prepare all student to be competitive candidates for entrance into a four-year college program. Students' education will consist of rigor, relationships, and relevance.

NONDISCRIMINATORY POLICY

The Hartford Board of Education complies with all applicable federal, state and local laws prohibiting the exclusion of any person from any of its educational programs or activities or the denial to any person of the benefits of any of its educational programs or activities because of race, creed, color national origin, ancestry sex, sexual orientation, gender identify or expression, marital status, age or disability subject to the conditions and limitation established by law.

The preamble to Title IX of the Education Amendments of 1972 states that:

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.

STUDENT ACADEMIC EXPECTATIONS

Pathways Academy of Technology & Design is first and foremost an academic institution committed to advancing the knowledge and skills of our students. Students are measured by their performance in three areas: reaching benchmarks within each curriculum to demonstrate course specific content, 21st century skill acquisition through Project-based learning, and upholding the core values of Pathways including scholarship, leadership, and citizenship. For district policies on student records, homework, school ceremonies and observations, please see the Parent-Student Handbook.

Technology & Design Graduation Requirements

- All students must complete 4 technology credits and 1 credit of fine arts. Within these, students must complete all the courses in Level 1; and within a single track, students must complete 2 credits of Level 2 courses, and 1 Level 3 (full credit or ½ credit) course.

Credit Requirements for Promotion

Hartford Public Schools requires high school students to successfully complete a minimum number of distributed credits before they can graduate. To ensure a logical progression toward graduation, the Office of Academics suggests the following guidelines when determining grade level promotion and/or grade level identification. **These guidelines apply to students in the class of 2020 and later.**

- 1. In order to be considered a Sophomore/10th grader:**
 - Students must have successfully completed 6 credits:
 - Credits must include: 1 in Mathematics and 1 in English.
- 2. In order to be considered a Junior/11th grader:**
 - Students must have successfully completed 12 credits:
 - Credits must include 2 in Mathematics, 2 in English, 1 in Science, and 1 in Social Studies/History.
- 3. In order to be considered a senior/12th grader:**
 - Students must have successfully completed 18 credits:
 - These credits must include 3 in Mathematics, 3 in English, 2 in Science, 2 in Social Studies.

Middle Grades Coursework and High School Credit

Beginning with the class of 2021, coursework for which a middle school student has demonstrated high school level mastery, per board policy and district approval, shall receive high school credit on the high school transcript via a transfer credit. **Only courses defined by the district as eligible for high school credit may be considered.** Credit will be assigned based on demonstrated mastery on the corresponding high school level course equivalent and assessment. No more than 4 credits may be awarded through middle school coursework mastery. The sending school shall determine credit for high school coursework through examination of the final course grade and the district end of course assessment. The student must pass

the district end of course assessment (determined by the Office of Academics) and demonstrate mastery in the coursework with a 60% or better.

During the end of their fifth-grade year, students and families must be informed of the opportunity to take middle grades courses, as outlined below, for high school credit. Additionally, they should be counseled on the potential impact of placing a course grade from middle school on a high school transcript. The middle school counselor or middle school principal's designee shall ensure that the student is enrolled in the eligible course (see below) for grade 8 and that their final course grade is reflected in PowerSchool/PowerTeacher. For scheduling considerations, high school principals and school counselors shall have access in PowerSchool to a master list of all grade 8 students who passed the courses outlined below. Before placement in an accelerated sequence, the high school shall verify the student has the course as a transfer credit in PowerSchool (on the transcript) before enrolling the grade 9 student in the accelerated course sequence.

Coursework	Assessment	Credit
8 th grade Algebra I	If 8 th grade Algebra I course was completed in HPS, final passing grade in course and on the End of Course assessment. If student is enrolling in HPS but completed the 8 th grade Algebra I course outside of HPS, passing grade on district designated Algebra I End of Course Assessment and demonstrated proficiency of related coursework is required.	1 credit Mathematics (Algebra I credit)
World Language	District designated World Language Course End of Course Assessment	1 credit for each level of demonstrated ACTFL proficiency in the language and placement in the next proficiency-level course for grade 9
Other courses via petition to District Graduation Review Board	Determined by district	Dependent on course

GRADING AND GPA

Each marking period a student will receive a letter grade (A-F). This grade, along with the course “weight” is used to determine the student’s Grade Point Average. “Honors” courses will be weighted .50 and courses designated as “Advanced Placement” will be weighted at 1.0. Academic honors are determined by the GPA at the end of each marking period. Students with a marking period GPA from 3.0 to 3.99 are on the Honor Roll and students with a GPA from 4.0 to 5.0 are on the High Honor Roll. A cumulative GPA is calculated each marking period and reflected on the student transcript.

Grading System	AP/ECE/DE	Honors	College Prep
A+ 100-97	5.00	4.50	4.0
A 96-93	5.00	4.50	4.0
A- 92-90	4.70	4.20	3.7
B+ 89-87	4.30	3.80	3.3
B 86-83	4.00	3.50	3.0
B- 82-80	3.70	3.20	2.7
C+ 79-77	3.30	2.80	2.3
C 76-73	3.00	2.50	2.0
C- 72-70	2.70	2.20	1.7
D+ 69-67	2.30	1.80	1.3
D 66-63	2.00	1.50	1.0
D- 62-60	1.70	1.20	0.7
F 59-0	0.00	0.00	0

Class Rank (from the HPS Program of Studies)

- The selection of valedictorian and salutatorian will be the responsibility of each individual high school.
- GPA will be reviewed at the end of the first marking period and end of the third marking period.
- The valedictorian designation shall be the student who has the highest cumulative grade point average in grades 9-12.
- The salutatorian shall be the student with the next highest cumulative grade point average
- Any disciplinary issue dealing with academic honesty will disqualify a student. (Including but not limited to cheating and/or plagiarism.)
- No one may be valedictorian or salutatorian if they receive any major discipline in junior or senior year that results in two or more days of Out of School Suspension.

- To qualify a student must have earned their final sixteen (16) credits in the Hartford Public Schools at time of graduation and a minimum of two (2) years at the high school from which s/he is graduating. All grades earned in all subjects, both required and elective, shall count in determining the final average.
- In the instance of a tie, students will be awarded a designation as co-valedictorian or co-salutatorian.
- Some form of recognition should be granted to both individuals during the Honors Night and the graduation ceremony beyond the designation in the printed program. Such recognition may take the form of being a student speaker, sitting on the dais, leading the pledge to the flag, standing and being introduced by the principal during their remarks to the audience nothing the student's achievement during their high school career, etc.

CREDIT REQUIREMENTS FOR GRADUATION

Minimum Graduation Requirements for Class of 2021

Humanities (11.0 Credits)		
Area	Credits	Requirements
English	4 Credits	2.0 English I & II; 2.0 Literature & Composition I & II
Social Studies	3 Credits	1.0 American History; 0.5 Civics and American Government; 1.0 World History or International Studies; 0.5 Social Studies Elective
World Language	2 Credits	2.0 World Language
Fine Arts	1 Credit	1.0 Fine Arts Elective
Humanities	1 Credit	1.0 Humanities Elective
STEM Courses (8 Credits)		
Area	Credits	Requirements
Math	4 Credits	1.0 Algebra I; 1.0 Geometry; 1.0 Algebra II or Probability & Statistics; and 1.0 Math Elective
Science	3 Credits	1.0 Biology with Lab; 1.0 Chemistry with Lab; 1.0 Science Elective
STEM	1 Credit	1.0 STEM Elective
Career and Life Skills (3.5 Credits)		
Area	Credits	Requirements
Physical Education	1 Credit	1.0 Physical Education
Health/Safety	0.5 Credit	0.5 Health and Safety Education
Career & Life Skills	2 Credits	2.0 Career & Life Skills Elective
Additional Requirements (2.5 Credits)		
	Credits	Requirements
Course Electives	1.5 Credits	1.5 School Thematic Courses or Open Electives
Capstone	1 Credit	1.0 Capstone Senior Demonstration or Equivalent
Total Credits Required		25 Credits

Minimum Graduation Requirements for Classes of 2022 and Beyond

Content Area	Required Credits	Required courses
Humanities (Total credits in content area: 9.0 credits)		
English	4.0	Course Requirements : English I, English II College/Career Recommendation : In addition to English I and II, students should take Lit & Comp I or an equivalent course
Social Studies	3.0	Course Requirements : Civics and US History
Visual and Performing Arts	1.0	
Humanities Elective	1.0	Includes courses in English (beyond the required 4.0), Social Studies (beyond the required 3.0), Fine Arts, Visual & Performing Arts, Music, or Theater (beyond the required)
Science, Technology, Engineering, and Math (Total credits in content area: 9.0 credits)		
Math*	3.0	College/Career Recommendation : 4 credits in mathematics, which should include Algebra I, Algebra II, and Geometry
Science	3.0	College/Career Recommendation : Life science and a physical science

STEM Electives	3.0	Includes courses in Computer Science, Engineering, IT, Media, Applied Arts, and Technology (beyond the required courses listed above)
World Languages* (total credits in content area: 1.0 credit)		
World Language <i>(1.0 credit required, however 2.0 credits or more are strongly encouraged)</i>	1.0	
Wellness (Total credits in content area: 2.0 credits)		
Physical Education & Wellness	1.0	
Health & Safety Education	1.0	
Additional Requirements (Total credits in content area: 4.0 credit)		
Capstone Experience**	1.0	
Electives	3.0	
Total Credits Required to graduate:		25.0

*This one initial World Language credit counting towards graduation may not be earned through a Mastery-Based Assessment without district approval.

**Master-Based Project Graduation Requirement can be met via Capstone Experience

Definition of Career and Life Skills Elective (from CSDE The Connecticut Plan)

Includes approved: advisory, career and technical education courses, English as a second language, community service, personal finance, public speaking, nutrition, and physical activity*. Credits for core graduation requirements shall be applied prior to utilizing a course as an elective.

*Interscholastic sports shall not be used for crediting purposes.

Definition of Humanities Elective (from CSDE The Connecticut Plan)

Includes approved: English, Social Science, Fine Arts, or other Humanities courses. Credits for core graduation requirements shall be applied prior to utilizing a course as an elective.

Definition of STEM Elective (from CSDE The Connecticut Plan)

Includes approved: Science, Mathematics, Technology, Engineering, or other STEM courses. Credits for core graduation requirements shall be applied prior to utilizing a course as an elective.

SERVICE LEARNING REQUIREMENT

In addition to academic requirements, students must fulfill the Service Learning Requirement. All students are required to participate in a minimum of 60 hours of service learning in order to graduate. It is suggested that students complete 15 hours per year, in order to be on track for graduation.

CAPSTONE EXPERIENCE

(1 credit, required) The purpose of the Capstone Experience is to provide all high school seniors the opportunity to apply the accumulative knowledge and skills they have developed

to complete a project, portfolio, internship, service learning or other demonstration project in an area of particular interest to the student. (See HPS BOE Policy 6140)

STUDENT SUCCESS PLANS & NAVIANCE

The Student Success Plan (SSP) is an individualized student driven plan that will be developed to address every student's needs and interests to help every student stay connected in school and to achieve postsecondary educational and career goals. The SSP will provide the student support and assistance in setting goals for social, emotional, physical and academic growth, meeting rigorous high school expectations, and exploring postsecondary education and career interests. The Student Success Plan at Pathways is hosted in Naviance, which is a comprehensive college and career readiness platform designed to help raise student accountability and performance in relation to the SSP.

- Ninth graders will be introduced to the graduation requirements, focusing on an academic goal, building a resume and exploring their strengths and potential career opportunities.
- Tenth graders review their progress toward graduation, continue resume development, create a PSAT study plan, create a career goal, take a personality inventory and continuing to review different careers.
- Eleventh graders will review their progress toward graduation, work towards a personal goal, create a SAT study plan, learn about careers that would be a good fit, discuss postsecondary plans, complete a college search and begin to compose a list of potential colleges.
- Twelfth graders will review their progress toward graduation, and work toward their postsecondary plans.

Naviance is a web-based resource for students and parents that encourages and supports post high school career and college planning. The following topics are available to students:

- Career Planning
- Learning Style Inventory, Interest Inventory, Personality Inventory, Resume Building
- College Planning
- College Search, Application Process, College Major Exploration, Scholarship/Financial Aid Resources
- Success Planning
- Personalized Goals and Tasks, Journal Entries, Student Planner

SAT

On October 7th, 2015, the Connecticut State Board of Education adopted the SAT as the statewide assessment in lieu of the Smarter Balanced Assessment for Grade 11 public school students. This assessment was endorsed by Governor Malloy and has been approved by the U.S. Department of Education as part of Connecticut's ESEA Flexibility Request. The SAT will be administered during the school day to all Grade 11 students in all public schools in Connecticut. One make up day is provided. Per federal law, SAT participation rates will continue to be a component of Connecticut's accountability system. There are three parts of the SAT: Reading, Writing and Language, and Mathematics. The SAT is a three-hour test. For more information on test administration, accommodations for students with special needs and English learners, data privacy, release of student results to colleges, etc. please visit our website at <http://www.pathwaystotechnology.com>

THEMED PROJECT PORTFOLIO

Pathways is using Themed Project Portfolios ("Portfolios") to accomplish the following educational goals:

1. To deepen our students' critical thinking skills by having them comprehend and analyze one theme from the perspectives of many different intellectual disciplines.
2. To develop our students' project planning and execution skills by having them do a series of projects using the same rubric and using their evaluations from one project to set focus areas for the next.
3. To develop our students' technology skills by having them use a variety of technological tools in a set of projects and create an online e-portfolio.
4. To develop our students' creativity by giving them a substantial role in conceiving ideas for their own projects.
5. To build character among our students by having them reflect on their own personal development in the Five Key Areas: (1) critical thinking; (2) planning and collaboration; (3) product;(4) reflection and revision; and (5) growth .

Method:

In addition to the many other projects that Pathways students normally do, each student will complete 5-7 Themed Projects -- one project in each of their seven different classes. Each Themed Project will include a written reflection completed at the conclusion of the project and each reflection must include a rough draft with teacher comments and a final draft that has been revised according to those comments. The Themed Projects will be spread out over the year, from September through April, according to subject area.

Advisory teachers will serve as their advisory students' Portfolio Instructors. Part of Advisory will be dedicated to the Themed Project Portfolio process. Students will individually meet with their advisor once at the beginning of the year to:

- (1) review the portfolio process
- (2) reflect on what areas of strength and weakness they think they have related to this process
- (3) set some focus areas for personal development for this year in the portfolio process.

Advisors will continue to meet with students throughout the year to check in on portfolio progress, conduct a mid-year review, and then a final evaluation at the end of the year.

In May of each year students will accumulate their Themed Project reflections and some evidence of each project into a single e-Portfolio with a written introduction and a year-end reflection. This reflection will address their thoughts about the theme and their growth in the Five Key Areas, especially the ones they chose to focus on, by referring to at least three of their Themed Projects. During the month of May every student will present their portfolio to an evaluator who will ask questions and then give feedback. Evaluators will include teachers, other faculty and community members, including IAB, and Presentation Day will be a major school event. After getting feedback from their evaluators students will finalize their portfolios and present them to their portfolio instructor for a final grade and feedback. The completion of a Portfolio each year will be a graduation requirement.

ePortfolio Requirements

Students will be creating a Pathways ePortfolio to showcase your yearly Themed Project Portfolio among other important areas of your high school career. You will grow this ePortfolio throughout your years as Pathways and it will be a public document that you can show potential employers and colleges.

This ePortfolio will be a visual display of your student work and talent and therefore reflective of your personality and individual interests and goals. It will also serve as a component of the student internship process, and you will show your ePortfolio to potential employers as you interview to gain employment at a paid internship.

You will receive training on how to create an ePortfolio through either your technology classes or your advisory. You will have time throughout the year to work on your ePortfolio and receive peer and teacher feedback before you present it at the annual showcase in May.

List of Items that will be required in your ePortfolio by Pathways graduation:

- Welcome/Introduction about yourself and your goals
- Photo (pictures/logos that represent yourself)
- Current Resume

- Video Resume (if created)
- Cover Letter
- Coursework
 - List of all the courses you have taken at Pathways
- Themed Project Portfolio for Grades 9, 10, and 11
 - Summary of each project
 - Link to your project
- Internship
 - Summary of your internship
 - Description of the work you did at your internship
 - Logo and facts about the company
 - Internship Presentation
 - Internship Evaluator Summary
- Capstone Project for 12th Grade
- Exemplary work
 - Additional exemplary work, outside of Themed Projects and Capstone, which you want to showcase
- Contact Information/LinkedIN Profile

COURSE LEVELS

The Pathways Academy of Technology and Design subjects are classified as Academic level and Honors level courses. Modifications to this level, however, can result in AP level courses or College courses based on student ability and staff recommendation. Specific information about a student's achievement and placement should be obtained from the school counselor.

ACCESS TO COLLEGE AND CAREER READINESS OPPORTUNITIES

All high schools will offer opportunities for students to earn college credits through Advanced Placement courses, Dual Enrollment (high school and college credit) courses, ECE (Early College Experience), and/or through articulation agreements that allow students to take courses at a college campus.

Credit or part of a credit earned at an institution accredited by the Board of Regents for Higher Education or State Board of Education or regionally accredited college/university that defines a three-credit semester course, or its equivalent, at such institution is equal to 1.0 credit toward high school graduation.

An official transcript from the college or university must be provided to the school in order for the credit to be added to the high school transcript.

Advanced Placement (AP)

Advanced Placement (AP) is a program created by the College Board which offers college-level curricula and examinations to high school students. American colleges and universities may grant placement and course credit to students who obtain high

scores on the examinations. Hartford Public Schools offers open access to AP courses. Open access allows students, parents/guardians, and HPS staff to collaboratively determine readiness for AP coursework.

Dual Enrollment (DE)

Dual enrollment (DE) and Concurrent Enrollment (CE) programs allow students to be enrolled in two separate, academically related institutions. DE refers to high school students taking college or university courses on the campus of the college/university. Courses are often offered after high school hours and classes are often comprised of college freshmen. This enables students to pursue an advanced curriculum relevant to their individual postsecondary interests.

Concurrent Enrollment (CE)/Early College Experience (ECE)

Concurrent Enrollment (CE)/Early College Experience (ECE) is defined as credit hours earned when a high school student is taking a college course for college credit, during the high school day, on the high school campus, taught by a qualified high school instructor. This enables students to pursue an advanced curriculum relevant to their individual postsecondary interests. For example, Early College Experience (ECE) is a concurrent enrollment opportunity through the University of Connecticut.

Internships

An internship is an extension of the classroom and curriculum that challenges students with an enriching educational experience within a professional worksite environment. Our program is designed to expose students to career pathways based on personal interest. Internships are also designed to provide opportunities for students to develop and hone career skills relevant across many professions. An internship is not a “volunteer” or community service activity but rather a student centered, compensated, career oriented and personalized learning experience.

CREDIT RECOVERY

Pathways Academy of Technology & Design’s policy is that students will not be allowed to repeat a course that was previously failed. It is the student’s responsibility to enroll in a summer credit recovery program. Particularly of note for seniors, if a senior fails to take a summer credit recovery program, they may have the ability to take it online during their school year in our online credit recovery program. Students may appeal this process by going through their school counselor. Appeals will be handled on a case-by-case basis.

CREDIT ENRICHMENT

Students may have the opportunity to take additional courses through the EdGenuity learning platform for credit enrichment. Students can coordinate credit enrichment with their school counselors.

COURSE SELECTION PROCESS

Each year students meet with their school counselor to plan a course for the following year. Parents are encouraged to be a part of this process. Factors to be considered include:

1. Graduation requirements
2. Grades and general academic achievement
3. Recommendations of present teachers
4. Career goals
5. Plans for higher education
6. Post-high school planning

Class Change Procedure (Withdrawal)

Changes after the third week of school are not permitted (transfer students – three weeks after enrollment date). Unique or extenuating circumstances that require a change in program will be considered on an individual basis and must have the approval of the Director of School Counseling and the Principal. Any withdrawals after the designated time period will result in a WF (if student is **failing** at time of withdrawal) or W (if student is **passing** at time of withdrawal) on the student's transcript.

POST-SECONDARY INFORMATION

Numerous opportunities exist for students upon graduation from Pathways Academy of Technology & Design. Guidance will assist students over the four years with the development of career goals and post-secondary plans. Students will be oriented to college search methods as well as the college admissions and financial aid processes. Resources for the college search and career exploration are available in the Guidance Office.

Four-Year Colleges and Universities

Admission requirements for four-year colleges and universities vary greatly, but general guidelines can be very helpful for students in planning their program at the Pathways Academy of Technology & Design.

<u>Subject</u>	<u>Credits</u>
English	4 credits
Mathematics	4 credits (including Algebra, Geometry, and Algebra 2)
Science	3 credits (including a lab science)
Foreign Language	3 credits same language
Extracurricular activities that indicate leadership and initiative	
SAT (Scholastic Aptitude Test) or ACT	

Two-Year Colleges/Associate Degree Programs

Associate degree programs are usually two years in length and are offered at certain community or junior colleges. Students may enroll in a terminal program, which grants an associate degree, or a transfer program, which allows students to continue their education at a four-year college or university. There are many opportunities for students in both traditional course offerings and specialized technical areas.

SEAL OF BILITERACY

All students, including those with an exceptionality or disability, should have the opportunity to demonstrate their biliteracy. Accommodations should be provided to students per their Individualized Education Plan (IEP) or Section 504 Plan for all assessments. To attain the Seal of Biliteracy, students' use of the language must be demonstrated, rather than their knowledge about the language, therefore, a student must demonstrate proficiency in English and another language.

To be eligible to receive the Seal of Biliteracy, the two academic requirements below must be met:

1. Student must complete all English language arts requirements for graduation.
2. Student must demonstrate proficiency in a language other than English in grades 10, 11, or 12 at a level comparable to "Intermediate Mid" on the ACTFL Proficiency Guidelines as demonstrated through one of the following methods listed in the Assessment of Evidence Table in the link below:

https://portal.ct.gov/-/media/SDE/Board/BoardMaterials090617/Seal_of_Biliteracy_Guidelines.pdf

ADDITIONAL COLLEGE CREDIT OPPORTUNITIES

AAMP: Advanced Manufacturing Pathway Program

The Advanced Manufacturing Pathway Program (AAMP) at Goodwin University is a dual enrollment, high school/college program serving 11th and 12th-grade students/scholars. Scholars will engage in a morning program, taking college-level manufacturing courses and learning from industry partners across the state of Connecticut.

After completion of dual credit classes, Goodwin Scholars may request a Goodwin College transcript showing those courses for which they have been awarded college credit. These credits will apply to their Pathways transcript as well earning 1 credit for every course successfully completed through Goodwin University.

Scholars that are interested in AAMP must :

- receive Principal and School Counselor approval before applying
- complete the combined CWP/Goodwin University application

Capital Community College High School Partnership Program (HSPP)

The High School Partnership Program provides the opportunity for high school juniors and seniors to jump start their college experience while still in high school.

Tuition and fees for students in the program are waived for the Fall and Spring semesters. Summer courses are not offered. The student is responsible for costs associated with books and supplies.

Applicants must do the following:

- Complete the college admissions application (the \$20 fee is waived). A parent's signature is required if under the age of 18.
- Include a HSPP Recommendation Form to participate in the program from a teacher or counselor
- Include a transcript of grades; an overall "B" average is required
- Take the college's Math and English placement test

NAFTRACK CERTIFIED HIRING

NAFTrack Certification is achieved through an online system designed to assess college and career readiness and was created by education and business leaders. Student performance is measured not only through end-of-course exams, but also through culminating projects and internships. Upon successful completion of NAFTrack Certification, students are eligible for NAFTrack Certified Hiring! Pathways' students are eligible for NAFTrack Certification. They will receive a My NAFTrack account to check their progress to NAFTrack certification throughout their high school career.

Three Components of NAF Track Certified Hiring:

1. Culminating Projects

Since NAF courses revolve around a culminating project, students work throughout the semester uploading work samples and answering 5 reflection questions per sample. These work samples illustrate mastery of content, progress of project work, and a variety of skills including collaboration and innovation. Each NAF course has a culminating project, but academies may choose other approved certification pathways that do not include a culminating project.

2. End of Course Exams

Students are assessed on a combination of multiple-choice and constructed response questions where students exhibit mastery of not only the content of the course, but also of the following skills: *Critical thinking, problem formulation, and problem solving; Teamwork/collaboration; Locating, comprehending, and evaluating information; Listening and observation; Written communication; Quantitative reasoning; Systems thinking.*

3. Internship Assessment

Students are assessed by their internship provider. Internship requirements include: *No less than federal (or local, if higher) sub-minimum training wage; 120 hours that may consist of two 60+ hour internships; Direct supervision by an adult who is not the student's teacher; Work produced is of value to the employer; Written individualized learning plan targeted to work-based learning outcomes.*

NAFTrack Certification Helps Students:

- Make the connection between their high school coursework and their futures
- Reflect on their own learning in order to set goals for continuous improvement
- Gain proficiency in taking online assessments, which are becoming more prevalent in higher education
- Demonstrate the hard and soft skills they develop throughout their academy experience
- Get on track to NAFTrack Certified Hiring, a commitment made by top companies to give special consideration to NAFTrack certified job applicants.

COURSE OFFERINGS AT PATHWAYS ACADEMY OF TECHNOLOGY AND DESIGN

ENGLISH

The Department of English Language Arts embraces a standards-based curriculum that reflects a balance between literacy skills and analysis of literary works. Our program is grounded in the concept of learning progressions in order to build mastery in reading, writing, speaking and listening. HPS English Language Arts courses utilize technology to facilitate inquiry and exploration of real world issues in literary and informational texts.

English I

1 Credit

Freshman students will read and respond to at least four book-length texts (novels, plays, non-fiction) and a variety of other literature, including poetry, short stories, and film. Students will engage in a dynamic classroom environment, with an emphasis on interpretation, connection, and criticism, as well as the mechanics and function of the English language. Students will produce several writing assignments, including persuasive essays, book reviews, and creative works. Students will utilize technology for writing, reading, responding, and researching.

Sample texts: *The House on Mango Street*, *Romeo and Juliet/Julius Caesar*, *Swallowing Stones*, *Warriors Don't Cry*, *The Absolutely True Diary of a Part Time Indian*, *The Pearl*, *Animal Farm*, *The Curious Incident of the Dog in the Nighttime*

English I Honors

1 Credit

Students enrolled in this course will experience a rich and dynamic environment of classroom collaboration and critical thinking. Students will read several pieces of text in the genres of nonfiction/memoir, fiction, and drama. As they respond to these texts, students will develop their critical thinking and questioning skills, and they will engage in collaborative classroom discussions in order to extend and enrich their thinking and interpretation of text. Working in structured learning circles, students will deepen their understanding of the text and explore meaningful themes and concepts. Students will engage in one independent reading book project. As they utilize the writing process, students will complete six finished pieces of writing in a variety of genres. In addition, students will create a research question and develop an I-Search as the major research assignment for the semester. Students will also work rigorously on grammar, writing techniques and skills, such as MLA citations and format, and vocabulary.

Sample texts: *Romeo and Juliet*, *Fahrenheit 451*, *The Pearl*, *Swallowing Stones*, *Animal Farm*, *The Curious Incident of the Dog in the Nighttime*

English II Honors

1 Credit

Prerequisite: English I

Placement in Grade 10 honors level is determined by NWEA test scores, CMT scores, ninth-grade performance, and teacher recommendation. The volume of work and the pace of learning at the honors level require students with a seriousness of purpose in their commitment to academics. In this course, students read and analyze a variety of literary forms: short story, novel, drama, poetry, and short nonfiction as they develop reading, writing, speaking, listening, and thinking skills – with special emphasis on the skills necessary to succeed on the CAPT test. Students will write in response to literature—in journals, essays, and other writing tasks. Grammar and usage will be taught in the context of the writing process. Vocabulary will be taught through literature. Throughout the course, students will work as a community of learners in which they learn more by learning together. There are opportunities to work both independently and collaboratively.

Sample texts: *Of Mice and Men, Cry, the Beloved Country, Lord of the Flies, To Kill a Mockingbird, Antigone, Macbeth, Language and Literature, Black Like Me, Night, Fences*

English II

1 Credit

Prerequisite: English I

Sophomore students will continue their work from English 1 by continuing to read and respond to at least four book-length texts (novels, plays, non-fiction) and a variety of other literature, including poetry, short stories, and film. Students will engage in a dynamic classroom environment, with an emphasis on interpretation, connection, and criticism, as well as the mechanics and function of the English language. Students will participate in several writing assignments, including persuasive essays, book reviews, and creative works. Students will utilize technology for writing, reading, responding, and researching. In addition, one major focus will be preparation for the CAPT test.

Sample texts: *To Kill a Mockingbird, Lord of the Flies, Macbeth, Night, Of Mice and Men, Cry, the Beloved Country, Friends, The Giver, Fences*

Literature & Composition I

1 Credit

Prerequisite: English II

Junior students will engage in a college-preparatory survey of American Literature, from the colonization of America to the present day. Students will be exposed to a variety of literature from the wide patchwork of our nations' cultures in genres of all types, from essays, poems and short stories to novels and films. Students will learn the major themes and developments throughout the literature of America and will learn to view the works in their social and historical contexts. Writing proficiency will be maintained and improved through regular, formal, and informal writing

assignments. Students will utilize technology for writing, reading, responding and researching, and will receive instruction on SAT reading and writing strategies.

Sample texts/authors: Emerson, Whitman, Wheatley, *Walden*, *The Catcher in the Rye*, *Native Son*, *Their Eyes Were Watching God*, *Always Running*, *The Crucible*, *The Great Gatsby*, *The Adventures of Huckleberry Finn*, *A Raisin in the Sun*, *Death of a Salesman*

Literature & Composition I Honors (needs to be added!!)

ECE Literature & Composition I and II (Now combined by UConn)

1 credit

ECE Lit & Comp I Portion:

Prerequisite: English I, English II and instructor approval

This course is rooted in the lived practice of academic writing. In it, we will explore how reading and writing transform ways of thinking about and engaging with communities and the world. As a way of engaging in academic work, you will put your experiences and ideas into conversation with texts, your peers, and broader contexts through language. This course is a seminar—consequently, we will be spending the semester collaboratively inquiring about and discovering new locations for thinking, discussion, and writing. You will be contributing to the intellectual work of UCONN and Pathways, and in doing so, you will have the opportunity to investigate your own interests through shared readings and materials.

Specifically, our course will examine the place and function of difference in language and writing, along with the ways in which power dynamics can suppress (or produce or expose) difference. A text, we will find, is composed of many voices—but rather than coexisting harmoniously, these different voices often struggle with one another, with some marginalized, or even submerged, and others dominant. Moreover, these power differentials within a text tend to reflect social and cultural practices. To better understand the heterogeneity of language, we will attend throughout this course to those silenced or otherwise less authoritative voices, as well as to marginalized writers' strategies of resistance—for example, their creative appropriation and use of dominant discourses for expressive and exploratory ends. In a sense, then, this seminar will involve a great deal of writing about writing, but also about culture, identity, and creativity.

ECE Lit & Comp II Portion:

Prerequisite: English I, English II, Literature and Composition I

In this *Seminar in Writing Through Literature* course, we do not look primarily at the analysis of texts, but, rather, we look 'through' texts for sites of exploration and inquiry in order to pursue a question or problem of interest. In other words, it is not a writing course about analyzing literature; it is a writing course that uses texts and a multi-disciplinary approach to examine issues and present possible solutions.

In this Seminar, you have the opportunity to express your ideas in writing and to do so with and among others engaged in similar work.

At the heart of this course, and at the heart of all inquiry based writing, is a very simple question: How can what we write transform the world? Answering this question means moving back and forth between examining the texts you read and thinking about how your own understanding of the world is reflected in the reading. In time, you may see that the question can be reversed: How does a text influence our thinking? And, how can what we write in response to a text affect our experiences and ultimately our understanding of the world? Here are just a few questions we focused on this year:

- What is the real history of race in America?
- How do generational events (e.g. 9/11, Obama presidency, Covid), events outside our control, change who we are?
- How does a text become a resource for things you want to do?

Literature & Composition II

1 Credit

Prerequisite: Literature & Composition I

Senior students will be exposed to a wide variety of literature from several cultures and time periods throughout the world, from Ancient Greece to post-colonial Africa. Students will study and analyze a variety of literature and discuss the texts in the historical and social contexts in which they were created. Students will utilize technology for writing, reading, responding and researching. Included in this course are periodic classes where students will become actively involved in the college application process and the completion of their college essay.

Sample texts: *Hamlet*, *Things Fall Apart*, *The Color of Water*, *Othello*, *Oedipus Rex*, *Persepolis*, *The Things They Carried*, short stories and poetry from Latin America and Asia

AP Literature and Composition (description needs to be added)

AP Literature & Composition is designed for students who desire to take a course at a college-level rigor. The course involves intensive critical analysis of college-level works of literature for mature readers. Timed writings, essay writing, critiques, and critical analysis papers will form the writing component of this course.

Public Service Leadership

1 Credit

Prerequisite: Instructor Permission

Public Service & Leadership is a two-semester course combining critical thinking, reading, writing, and analytical skills into servant leadership based project experiences and implementation. Students participate in research and evaluation, project planning and execution, as well as leadership and critical thinking based activities to continue developing these key skills. The goal of this class is to develop

servant leadership skills as students work toward improving the high school experience for all stakeholders.

SAT Prep

½ credit

SAT Prep is designed to review previously learned ELA and Math topics to prepare students with strategies and confidence in order to succeed on the Redesigned SAT.

MATHEMATICS

The intent of the high school mathematics program is to prepare all students to use mathematics and problem-solving skills in further education or in their career. The program focuses on mastering the objectives of the SAT Assessment, problem-solving, communicating mathematically, reasoning mathematically, applying mathematics to real-world situations, and using technology. Our mathematics program offers a wide range of courses to provide students with opportunities to actively participate in learning the structure and the nature of mathematics, while developing analytic skills that will help them apply basic principles to other areas of study and everyday living. Each course is based upon a program of studies aligned with the Connecticut Common Core State Standards. Students may begin their studies at various levels based on their middle school math experience. Many students enroll in higher-level mathematics courses after successful completion of Algebra II.

All mathematics courses make use of Project-Based Learning, and technology in the form of computer software and/or graphing calculators. Technology allows students to visualize the mathematics that they are learning as well as lessening the burden of voluminous and complicated numerical computation. Students should check with their current mathematics teachers for recommendations about appropriate types of graphing calculators. The Mathematics Department suggests students purchase their own calculators (which will be used throughout their math program at the high school and beyond).

Math Requirement at Pathways

At Pathways Academy of Technology & Design, students are required to earn four credits of mathematics. Students must pass each course in order to graduate. The math sequence is:

Level 1	Algebra I
Level 2	Geometry
Level 3	Algebra II
Level 4	Pre-Calculus, College Ready Math
Level 5	AP Calculus AB, AP Statistics, AP Computer Science A, AP Computer Science Principles

If a student enters Pathways with an Algebra 1 credit, they would skip to Level 2 and only need to complete 3 credits of mathematics at Pathways. It is encouraged for students to take four credits of mathematics at Pathways if students are interested in pursuing a STEM field in post-secondary education.

College Ready Math

1 Credit

Prerequisite: Algebra II

The College Ready Math curriculum is aligned to Central Connecticut State University's Math 099 Elementary Algebra curriculum. Students revisit foundational skills in mathematics, such as Algebraic Expressions, Equations, and Inequalities, through a concrete, pictorial, abstract method. These specific skills are aligned to the requirements developed by Central Connecticut State University, for students entering a credit bearing Mathematics course at the undergraduate level. Students explore relevant and necessary Mathematics for Citizenship topics such as "Fairness in Districts and Voting" and "Analysis of Climate Change and Vaccination" to graduate as active and prepared participants in the democratic practice of our communities.

Advanced Placement (AP) Calculus

1 Credit

Prerequisite: Pre-Calculus

This course emphasizes a multi-representational approach to calculus. Concepts, results, and problems are expressed graphically, numerically, analytically, and verbally. Content includes concepts and applications of differential and integral calculus, limits, and elementary differential equations. This course prepares students for the Calculus AB Advanced Placement examination, for which placement and/or credit may be awarded at the college level, if a qualifying score is obtained. Content of this college level course corresponds to the syllabus of the College Board Calculus AB Advanced Placement Program. All students are encouraged to take the Advanced Placement exam.

Advanced Placement (AP) Statistics

1 Credit

Prerequisite: Algebra II & Instructor Permission

The AP Statistics course is designed for students to complete studies equivalent to a non-calculus-based college course in statistics. Like the college course, the purpose of the AP course is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data drawn from a variety of disciplines. The course has two major career pathways: describing and displaying data and using probability models to develop the tools in statistical inference. In addition to mastery of specific statistical techniques, students will learn to think about the background of the data, the design of the studies that produce the data, the possible effect of outlying observations on conclusions from the data, the question of causation and the reasoning that lies behind the standard methods of inference.

Algebra I

1 Credit

The Algebra I course builds on foundational mathematics content learned by students in previous grades by expanding mathematics understanding to provide students with a strong mathematics education. Content is designed to engage students in a variety of mathematical experiences that include the use of reasoning and problem-solving skills, which may be applied to life situations beyond the classroom setting. This course serves as the cornerstone for all high school mathematics courses; therefore, all subsequent mathematics courses require student mastery of the Algebra I content standards.

Algebra II

1 Credit

Prerequisite: Algebra I

Algebra II is a course that extends the content of Algebra I and provides further development of the concept of a function. Topics include: relations, functions, equations and inequalities; conic sections; polynomials; algebraic fractions; logarithmic and exponential functions; sequences and series; and counting principles and probability.

Honors Algebra II

1 Credit

Prerequisite: Algebra I, and teacher recommendation

This course will enhance the higher-level thinking skills developed in previous Math courses through a more in-depth study of those concepts and exploration of some pre-calculus concepts. Students will be challenged to increase their understanding of algebraic, graphical, and numerical methods in order to analyze, translate and solve polynomial, rational, exponential, and logarithmic functions. Sequences and series will be used to represent and analyze real world problems and mathematical situations.

Honors Geometry

1 Credit

Prerequisite: Algebra I, and teacher recommendation

This is an accelerated geometry course designed for students who have been successful in an Algebra I course. Topics include inductive reasoning to identify patterns and to make conjectures about real world situations, as well as apply deductive reasoning in order to confirm their conjectures. There is a strong emphasis on Proofs in this course with additional topics on congruent and similar triangles, mid-segments of triangles, properties of special right triangles, and trigonometry.

Geometry

1 Credit

Prerequisite: Algebra I

Geometry builds on a number of key geometric topics developed in the middle grades, namely relationships between angles, triangles, quadrilaterals, circles, and simple three-dimensional shapes. Students studying Geometry will further develop analytic and spatial reasoning and move towards formal mathematical arguments and constructions. They apply what they know about two-dimensional figures to three-dimensional figures in real-world contexts, building spatial visualization skills and deepening their understanding of shape and shape relationships.

Honors Pre-Calculus

1 Credit

Prerequisite: Algebra II

Pre-Calculus will emphasize a study of trigonometric functions and identities as well as applications of right triangle trigonometry and circular functions. Students will use symbolic reasoning and analytical methods to represent mathematical situations, express generalizations, and study mathematical concepts and the relationships among them. Students will use functions and equations as tools for expressing generalizations.

PHYSICAL EDUCATION & HEALTH

The Department of Wellness believes that all students should have the opportunity to be fit, healthy balanced, and ready to learn. The high school wellness curriculum focuses on the planning and implementation of lifetime physical activity and personal health goals. Students extend and apply skills from previous years, demonstrate competency in lifetime activities, and develop a personal fitness plan. Students are encouraged to participate in Physical Education and Health courses to maintain and enhance their personal health and fitness levels while enjoying activities that foster collaboration and connection to core subject areas. Ultimately, HPS students will become health literate people who value the importance of personal health and fitness and pursue a lifestyle of optimal wellness.

Individual and Team Sports

½ Credit

The physical education program at Pathways Academy parallels the Connecticut State framework for physical education. It is based on the disciplines of motor learning, biomechanics, exercise physiology, human growth and development, sociology, and historical perspectives. It stresses physical education activities that help the student develop socially and emotionally as well as physically. We have two core phases: the fitness and sports model unit. The core program consists of department and district selected activities that are designed to introduce the student to Pathways Physical Education, physical fitness, as well as the many sports. Both groups will concentrate on an activity for an eight to sixteen week period. Through regular participation in physical education, the student realizes the value of active involvement in our program and receives instruction in sports and methods of maintaining fitness, which will have the potential to improve the quality of their adult life. The Fitness and Wellness core program will be dual: individual activities and physical fitness. The Sports and Games core program will offer team activities and physical fitness.

Physical Health & Safety

½ Credit

Physical Health and Safety course provides the basis for continued methods of developing knowledge, concepts, skills, behaviors, and attitudes related to students' physical health and wellness. This course covers major content areas such as nutrition, sexual education, human growth and development, CPR, disease prevention, and substance abuse prevention.

Personal and Social Wellness

½ Credit

Personal and Social Wellness provides students opportunities to examine their own personal wellness triangle and create sensible health-related goals specific to their own needs. This course focuses primarily on building students' skills in creating and maintaining healthy relationships, effective conflict resolution, and avoiding negative health consequences due to media and social influences.

Yoga

½ credit

This class explores yoga, a physical practice that works the body through asana, or poses. This workout will build a flexible strong body, develop the core, rinse out toxins, dissolve tensions, and improve body composition. This class will start out at a beginning pace, progressing to power yoga at the end of the semester. Each class will end with a relaxation segment and or a guided visualization.

Personal Fitness

½ credit

Prerequisite: Physical Education; teacher recommendation

Strength and conditioning is a physical education course that will focus on aerobic and anaerobic fitness. Students will be introduced to basic human anatomy and bioenergetics to understand how the human body works during exercise. Students will be given the tools to create a customized individual workout program to develop various areas of personal fitness. This course is for students who want to take an active role in improving their overall health and wellness.

SCIENCE

At Pathways, students will take a series of 3 courses aligned with the Next Generation Science Standards (NGSS). NGSS uses a 3 dimensional learning approach which intertwines cross-cutting concepts, including themes in science such as structure and function; science and engineering practices, such as making arguments from evidence, and disciplinary core ideas and key content. Students will take Physical Science in freshmen year, Biology in sophomore year, and a third science elective in their junior year. Students who are interested in taking a fourth year of science may choose from Physics or Environmental Science.

Anatomy & Physiology

1 Credit

This course is an in-depth study of the body systems responsible for maintaining homeostasis. The structures and functions of each body system is examined and their relationships to one another in maintaining a healthy body. Animal dissection and a variety of laboratory activities are integral components of this course.

Biology and Honors Biology

1 Credit

Prerequisites: Physical Science

An introductory biology course designed to acquaint the student with the biological principles, which govern living things, and become better equipped to make logical decisions when presented with the biological problems of every life. An in-depth treatment of the following topics is presented: the scientific method, the chemical basis of life, the organization of living things, the diversity of life, genetics, ecology, and evolution.

Chemistry and Honors Chemistry

1 Credit

Prerequisites: Algebra I, Physical Science

This is an introductory chemistry course that integrates hands-on investigations, student discourse and modeling concepts with mathematical calculations and real-world applications. An in depth treatment of the following topics is presented: the scientific method, measurement, atomic structure, periodic table trends, stoichiometry, bonding, molecular geometry, phases of matter, gas laws, solutions. Honors chemistry additionally includes advanced topics including chemical equilibrium, acids and bases, oxidation-reduction, chemical kinetics, and thermodynamics.

ECE Environmental Science

1 Credit

Prerequisites: Successful completion of two years of high school science, permission of instructor

An introduction to basic concepts and areas of environmental concern and how these problems can be effectively addressed. Topics include human population;

ecological principles; conservation of biological resources; biodiversity; croplands, rangelands, forestlands; soil and water conservation; pollution and water management; and wildlife and fisheries conservation. Successful completion of the course results in UCONN credit for NRE 1000: Environmental Science (three credits).

Physical Science

1 credit

Physical Science is the freshmen level science class that is designed to introduce many basic concepts that support chemistry and biology. This course is designed to act as a stepping stone to build up students' knowledge in critical scientific reasoning and the scientific method. The course has a heavy focus on inquiry and project based learning while aligned to NGSS standards for freshmen science. The course covers chemical bonding and atomic structure, astronomy, geology, and ecology. The course will also be computer-based, and students will be utilizing materials, tools, and principles used in the freshmen technology rotation, which students take concurrently.

Physics

1 Credit

Prerequisites: Physical Science, Biology and instructor approval

This course is an introduction to the basic principles of physics. Students engage in inquiry activities to collect and analyze data around phenomena relating to motion, forces, forces at a distance, energy conversions, waves and electromagnetic radiation. Student collaboration and discussion, as well as mathematical, graphical and visual modeling are central practices to understanding and interacting with these topics.

SOCIAL STUDIES

The Department of Social Studies embraces a standards-based curriculum that teaches the literacy skills, attitudes, and content knowledge that promote responsible citizenship. Social Studies is an interdisciplinary field which includes history, geography, economics, political science, and more. Students are expected to use these disciplines to develop a variety of perspectives to enhance their ability to think critically about the events and issues that shape their community, their nation, and their world.

Civics

½ Credit

Prerequisite: Foundations of Government

Civics provides the foundation for students' active and informed participation in our society, and for understanding the interaction between the ideals, principles, and practices of citizenship. This course examines the structure of the United States Constitution and the Bill of Rights, with a focus on the role and structure of the three

branches of government, types of political systems, the electoral process and the role of government in our society.

Foundations of Government

½ Credit

Foundations of Government provides the study of the government structures and philosophies that influenced the Founding Fathers during the creation of the U.S. Constitution. This course will highlight the governmental structures of Ancient Greece, Rome, and the Magna Carta; in addition to surveying the Enlightenment philosophers whose ideas were consulted. Students are expected to use critical thinking skills to analyze which ideas were valued by the Founders of the U.S., which were discarded and why. This course focuses on reading and writing strategies and speaking and listening skills.

ECE U.S. History

1 Credit

Prerequisite: Foundations of Government, Civics and Instructor Approval

This course will take a collegiate approach to history by investigating the events of America's past. Beginning in 1865, we will apply the Historical Thinking Skills to study the changes in American society and industries to analyze the development of the United States into a world leader. Like all ECE courses, students can earn college credit toward their transcripts.

International Studies

1 Credit

Prerequisite: Foundations of Government, U.S. History, Civics

International Studies is an introduction to the major concepts, issues and patterns in our world. This project-based course will allow students to explore the global issues that not only affect them, but the various people and cultures around the “small” world in which they live. They will make the important connections needed to live and work in a global society. The course includes an issue-based exploration of today’s interdependent world. Students will study current history-making events and issues throughout the world and examine the impact of these events upon our world, nation, community, and our own lives.

Black and Latino Studies

Recommended Prerequisites: Foundations of Gov't, US History

Humanities Elective Grades: 11-12 Credit: 1.0 CCP level: Full Year

The course is an opportunity for students to explore accomplishments, struggles, intersections, perspectives, and collaborations of African American/Black and Puerto Rican/Latino people in the U.S. Students will examine how historical movements, legislation, and wars affected the citizenship rights of these groups and how they, both separately and together, worked to build U.S. cultural and economic wealth and create more just societies in local, national, and international contexts.

Coursework will provide students with tools to identify historic and contemporary tensions around race and difference; map economic and racial disparities over time; strengthen their own identity development; and address bias in their communities.

Diverse Voices in US. History

Prerequisite: Foundations of Govt'

Grad Requirement: grade 10 **Credit:** 1.0 **CCP level:** Full year.

The course will be animated by one fundamental question: *How have the experiences of people of color—particularly those black and brown peoples of African, Spanish, and Indigenous descent--shaped the historical development of the United States of America?* The history that students will learn in this course is the history behind, underlying, and contesting the standard narratives of U.S. history, most of which, however unintentionally, focus on the progressive growth of democracy, freedom, equality, economic growth, immigrant assimilation, human rights, and responsible world power.

Economics

1 Credit

Students will learn and be able to use economic thinking, problem solving, and logic in solving business problems and analyzing current topics. This course emphasizes the role of free markets in determining economic well-being. Students will learn the fundamentals of microeconomics including supply, demand, and pricing, along with the basics of macroeconomics: Monetary Policy, Fiscal Policy, Money, Supply and the role of government in stabilizing and growing an economy. Additionally students will study personal finance, credit, capital management and entrepreneurship. This course offers students the opportunity to apply what they learn through interactive projects and group assignments.

Psychology

1 Credit

This course provides an overview of the theoretical underpinnings of psychology and the results of classic studies and current research in the major areas of this discipline: physiological psychology, learning and motivation, sensation and perception, cognition, emotion, development, social psychology, personality, and clinical psychology. Students gain an understanding of major issues addressed in psychological research today, including the complex interactions between nature and nurture and the neural bases of human behavior.

Sociology

1 Credit

This course is a study of social theories, their histories, social structures, functions, and conflict emphasizing human, institutional, and group interactions. The course

provides an overview of political, economic and other cultural phenomena and methodologies of the results of scientific social research. In addition, it seeks to expand ideas, concepts, theoretical, and practical orientations by utilizing a comparative perspective.

ECE Anthropology

1 Credit

Prerequisite: Instructor Approval

An introduction to the anthropological understanding of human society through ethnographic case studies of selected peoples and cultures, exploring the richness and variety of human life. Encourages students to learn about different cultures and to apply their knowledge to make sense of their own society. *This course is a dual enrollment as a UCONN student and Pathways student.*

CAPSTONE EXPERIENCE

1 Credit

The purpose of the Capstone Experience is to provide all high school seniors the opportunity to apply the cumulative knowledge and skills they have developed to complete a project, portfolio, internship, service learning or other demonstration project in an area of particular interest to the student. (See HPS BOE Policy 6140)

TECHNOLOGY AND DESIGN EDUCATION

Freshman Technology Rotation

Business Communications

.4 Credit

Business Communications thoroughly covers the basics of written and oral workplace communication. Emphasis on grammar, math, business ethics, and the “team” concept will be discussed. This will include a project that will team students to work on an entrepreneurial business of their own and be prepared to present their findings in a student desired media format. Topics include: interpersonal communication, ethical issues, business development and more.

Foundations of Art

.4 Credit

This course will teach students the fundamentals and foundations of art and how things like color, texture, and value all combine to create incredible pieces of art. In addition to growing your own portfolio of work, you will learn to cultivate your creativity, to deepen your design knowledge, to build your technical skill, to examine the work of previous masters and how to utilize their knowledge and techniques to grow, and to boost your own critical thinking ability when it comes to evaluating your work as an artist. Additionally, students will have the chance to discover the types of careers that exist in the field of art today.

Introduction to Programming

.4 Credit

Students learn the fundamentals of computer programming using the Alice programming environment. Students will learn about objects, classes, and methods by creating interactive 3-dimensional worlds.

Introduction to Web Design

.4 Credit

This course teaches HTML programming for web page creation, from the history of the World Wide Web to formatting text and lists, and inserting images and tables on web pages. Students will create model web pages and pages of their own design, all demonstrating proper coding techniques. All students will acquire programming skills applicable to many other courses and capable of creating a web page for any other class project.

Manufacturing Track

Advanced Manufacturing

½ credit

Prerequisites: Completion of 2 Level 2 courses in the Advanced Manufacturing track

Advanced Manufacturing is a hands-on creative experience of the engineering design process. This course utilizes Science, Technology, Engineering and Math to create real life parts. Students will utilize geometric math skills and CAD software to electronically draw 2D and 3D models. Students will utilize safety skills and multiple manufacturing tools to make 3D models into real parts. The course will give students a broad look into what it takes to develop a product from conceptual idea to finished product. There will be an opportunity for work-based learning experiences through job shadows, guest speakers, and worksite tours, as well as internships. Seniors will also be expected to complete their Capstone project within the field of Advanced Manufacturing.

Automation & Robotics I

½ Credit

Introduction to Robotics is a one-semester integrated STEM course. The primary objective of the class is to develop engineering design skills by completing a series of hands-on robotics projects. The secondary objective is to develop programming skills to control the robot projects. The Robotics course uses classroom-friendly technologies to develop students' problem solving and reasoning skills by placing them in technology-rich situations where they must find the science, engineering and/or programming application to unlock the solution to the problem and then apply that rule across multiple contexts. The goal of the engineering design portion of the project is to teach students a research-based systematized method for solving engineering design problems. The project places programming and design engineering in contexts that students understand, encourages teamwork and integrates a systems ways of thinking.

Automation & Robotics II

Prerequisite: Automation & Robotics I

½ Credit

The purpose of Robotics II is to apply engineering and robotics skills learned in robotics I to a series of challenges. The students will be presented with a problem or goal that they will then have to construct a robot to complete. This course will incorporate the use of CAD to design robots and build new custom parts. These parts will be 3D printed and used to augment their robots. Ultimately the students will be studying, designing and problem solving using STEM skill

Innovation & Invention NFTE

1 Credit

Prerequisite: Freshmen Technology Rotation

This course covers essential business and entrepreneurship concepts about how to start and run a small business enterprise. In collaboration with the National Foundation for Teaching Entrepreneurship (NFTE), this course will allow students to create a product of their own design. Students in this course will discover the difference between inventor and innovator. They will learn about historical inventions that changed the world and innovators that have influenced society will be researched and studied. Students will utilize the engineering design process and create a business plan based on their innovation. Students will enter business plans and innovations/inventions in various state and national competitions.

Computer Science Track

AP Computer Science A

1 Credit

Prerequisites: 2 credits of Level 2 courses in the Computer Science Track; instructor approval

Computer Science A emphasizes object-oriented programming methodology with an emphasis on problem solving and algorithm development and is meant to be the equivalent of a first-semester course in computer science. It also includes the study of data structures and abstraction.

Design of the User Experience

½ Credit

Prerequisite: Freshman Technology Rotation; teacher recommendation

Programmers and engineers make the tool, designers make the tool look attractive, and psychologists make sure the tool is useful. Ultimately, customers will reward the makers that can do all three well, but the marketplace is a painful time to discover if the product will be successful. It is better to know, while the tool is being built, what the customers want than to find out afterwards. Successful companies always include designers and psychologists in their product development. There are clever ways to make decisions and evaluate concepts while in the planning stages. Skilled professionals to help avoid costly mistakes are highly desirable. This course is about the designers' principles and psychologists' methods so that students can go on to careers in technology development as more than just programmers and engineers.

Cybersecurity

½ Credit

Prerequisite: Freshman Technology Rotation or teacher recommendation

'Cybersecurity' is a high school course that aims to educate students on the importance of cybersecurity and how to protect themselves and their information online. The course covers a range of topics including network security, firewalls, intrusion detection systems, cryptography, malware, social engineering, and ethical

hacking. Students will also learn about the legal and ethical issues surrounding cybersecurity and the different career opportunities in this field. Throughout the course, students will develop critical thinking and analytical skills as they learn to identify and mitigate security threats and vulnerabilities. They will also gain hands-on experience in using tools and techniques used by cybersecurity professionals to protect networks and systems. By the end of the course, students will have a strong understanding of the basics of cybersecurity and how to protect themselves and their information online. They will also be well prepared for further study in cybersecurity or related fields such as computer science or programming.

Web Design

1/2 Credit

Prerequisite: Freshman Technology Rotation or teacher recommendation

This course follows Introduction to Web Design. IN the first half of the course further coding HTML 5 and CSS 3 techniques will be used within text-editors and web browsers. Students will create web pages demonstrating concepts on a near-daily basis and validating their source code to ensure current web specification compliance. In addition, basic design principles will be taught and applied to web design. The Bureau of Labor Statistics projects 20.1 percent employment growth for Web developers between 2012 and 2022. The second half of the course introduces advanced coding desired in Web programming professionals. Advanced HTML 5 and CSS 3 coding introduce design concepts such as the CSS box model, layout design, site navigation, forms, search engine optimization, and good design practices will be taught. JavaScript will also be included as a third coding skill for desirable Web Programmers. Students will continue to create web pages demonstrating concepts on a near-daily basis and validating their source code to ensure efficiency and browser compatibility.

Gaming & APP Development Track

Artificial Intelligence

½ Credit

Prerequisite: Freshman Technology Rotation or teacher recommendation

Artificial intelligence has become increasingly prevalent in our lives. Whether in the form of algorithms, chatbots, data sciences, or machine learning, industry has AI embedded in every aspect of it. In our daily lives, we encounter AI in social media, advertising, health sciences, and so much more. It is a necessity for students of today to learn about all forms of AI at a young age to better understand the world around them and be prepared for their future careers. This course introduces students to this new-age technology through the world of chatbots and data sciences. They experience how machines learn, and “teach” their chatbot to be more human-like. The students are then introduced to machine learning and data sciences using Python coding to explore data sets and trends.

Video Game Design

Prerequisite: Intro to Programming or Programming.

½ credit

Students will work individually and in groups to design, program, test, and deploy video games. The tools that we will use are capable of deploying to multiple platforms (mobile phones, web games, computer games) and are popular among independent developers.

Digital Video & Media Track

Digital Video and Media

½ Credit

Prerequisite: Freshman Technology Rotation or teacher recommendation

Digital Video and Media guides students through all phases of digital video production, including pre-production and planning, executing and managing a video shoot, and techniques of editing and post-production. Students explore methods of sharing and broadcasting digital videos, including multiple platform versions, CDs and DVDs, and web delivery. They also learn about the latest methods of spreading the word about a digital video, including methods of using online search engines to lead viewers to the production. Finally, students have a chance to discover the types of careers that exist in digital media and design today.

Design Track

Graphic Design I

½ Credit

Prerequisite: Foundations of Art

This course will teach students the fundamentals and foundations of graphic design and how various digital elements combine to create digital art. In addition to growing your own portfolio of work, you will learn to cultivate your creativity, to deepen your design knowledge, to build your technical skill with Adobe Photoshop and Illustrator, and to boost your own critical thinking ability when it comes to evaluating your work as a graphic designer. Additionally, students will have the chance to discover the types of careers that exist in digital media and design today.

Art I (Painting & Drawing I)

½ Credit

Prerequisite: Foundations of Art

This studio course is a one semester elective designed to provide students with the foundations of artistic expression. This course is highly recommended for the student who plans to pursue art, take Art II (Painting & Drawing II) and AP Studio Art. Students will learn how to manipulate the elements of art and principles of design, as well as use a variety of media to communicate their ideas creatively. There will be emphasis on observational drawing in addition to expressive experimentation. Sketchbooks are required to complete independent practice and application of learned skills. Students will gain experience in a variety of mediums, such as, graphite, charcoal, and ink. Additionally, Art 1 will provide students with a foundation to painting with a strong focus on color theory. Art 1 is both collaborative and independent, utilizing different learning strategies to approach art making, art history, and critiques. Some drawing skills are recommended for success in this course, but above all else is a strong desire to be creative and try something new.

Art II (Painting & Drawing II)

½ Credit

Prerequisite: Foundations of Art & Art 1 (Painting & Drawing 1)

This studio course is a one semester elective that builds upon the skills and disciplines learned in Art 1. Students will have needed to complete and pass Art 1 to be placed in Art II. This course is recommended to students who have a desire to pursue the visual arts and plan to take AP Studio Art. The elements and principles of art and design will continue to be emphasized in this course, but there is a stronger

sense of independence. Students will be able to utilize the knowledge gained in Art 1 to make informed decisions in their art making. A variety of media will be utilized throughout the semester with an emphasis on more painting instruction. Observational drawing and painting, as well as expressive abstract artwork will be created throughout the semester. Students will learn to become more self-directed in their art making process and gain more sophisticated experiences in not only their art production but in critiques as well. A sketchbook is required for this course for independent practice work, application of skills learned, and project planning. Students must be serious about their art making, willing to push themselves creatively, conceptually, and try their hardest.

AP 2-D Art & Design

1 Credit

Prerequisite: Teacher recommendation - Art I & II

Develop your skills in a two-dimensional medium such as graphic design, photography, collage, printmaking, and others as you learn the principles of 2-D design. You'll create artwork that reflects your own ideas and skills and what you've learned. The skills students will learn will include:

- Investigating the materials, processes, and ideas that artists and designers use
- Interpreting works of art and design
- Practicing, experimenting, and revising as you create your own work
- Communicating your ideas about works of art and design

*College Board supported course, developing skills in two dimensional mediums such as drawing, painting, photography, graphic design, collage, etc.

WORLD LANGUAGES

The World Language Department offers courses in Spanish. A proficiency-oriented approach to instruction promotes speaking, listening, reading, and writing skills across interpersonal, interpretive, and presentational modes of communication. Through a long sequence of instruction and the attainment of high levels of proficiency, students will be able to participate with cultural competence in a global economy and pluralistic society.

Spanish I

1 Credit

This is an introductory course in which students will learn the sounds and symbols of the new language and begin developing all four basic skills: listening, speaking, reading and writing. The course stresses vocabulary acquisition and usage, sentence structure, and basic grammatical principles. Since the objective of the course is to develop the student's ability to communicate in the new language, class time is developed largely to the development of listening and speaking skills. All students will be required to listen, imitate, and to actively participate in all kinds of aural and oral drills. As the course progresses, they will also be required to do simple reading and writing exercises in the target language. In addition, the students in this course will have the opportunity to learn about the customs, idiosyncrasy, the cultural practices and expressions of the people whose language they are studying. Although the use of some English may be necessary on some occasions, teachers will strive to conduct classes in the target language as much as possible. Participation in all class activities and exercises is absolutely essential and expected of all students. Homework will be assigned on a daily basis to reinforce all concepts studied in class and to provide additional opportunities for students to practice.

Spanish II

1 Credit

Prerequisite: Spanish I or AAPPL score

This course is a continuation of level I. In this course, students will review all basic concepts studied in level I and continue to further the development of the four basic skills, listening, speaking, reading, and writing. After the review, youngsters will go on studying the basic grammatical principles of the target language, the formation and use of different tenses, and enhancing their vocabulary base. The approach used is similar to that of the first year level. The emphasis continues to be on developing the ability to listen and communicate in the new language, but reading comprehension and writing skills are also stressed. The students will gain knowledge and understanding of the psychology and all cultural aspects of the people whose language they are studying. Classes are conducted in the target language except for those situations in which the teacher considers the use of English absolutely necessary. Participation in all class activities and exercises is absolutely essential and expected of all students. Homework will be assigned on a

daily basis to reinforce all concepts studied in class and to provide additional opportunities for students to practice.

Spanish III

1 Credit

Prerequisite: Spanish II or AAPPL score

This course is a continuation of Level II, and it is designed for those individuals who are seriously interested in language studies. It provides students with the opportunity to continue expanding their knowledge of the language and their ability to communicate in it both orally and in writing. In this course, pupils will review and practice concepts studied in the second year level and move on to more complex grammatical principles and verb tenses. The students will work on the acquisition and use of vocabulary, and will be constantly challenged to express themselves in the target language through oral discussions, readings and writing exercises. Classes are conducted entirely in the target language. Participation in all class activities and exercises is absolutely essential and expected of all students. Homework will be assigned on a daily basis to reinforce all concepts studied in class and to provide additional opportunities for students to practice.

AP Spanish Language & Culture

1 Credit

Prerequisite: Spanish I, Spanish II, or Teacher Recommendation

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).