

# Robert E. Fitch High School

## Program of Studies

F  
A  
L  
C  
O  
N  
S



F  
A  
L  
C  
O  
N  
S

2018- 2019  
Groton, Connecticut

## PRINCIPAL'S MESSAGE TO THE STUDENTS

Dear Students,

On behalf of the faculty and staff at Fitch High School, it is my pleasure to present you with the Fitch High School Program of Studies. We are proud of our course offerings and we believe that the variety of courses offered at Fitch High School meets the needs of every student. Selecting an appropriate and challenging program of study is the highest priority at this time in your life.

An edition of the Association for Superintendents and Curriculum Development Education Update contained an article, which began, "High school is a time for dreaming big and hatching plans for the "real world" after graduation." But to make those dreams and plans a reality, students must also view high school as a unique opportunity to acquire the skills and knowledge – including the self-knowledge – that can lay the groundwork for later learning and promising careers". Acquiring the 21st century skills is valuable to you as you "achieve more" in the years after high school.

This Program of Studies is a resource, and it will assist you in your pursuit of your high school diploma and your life's goals. Take the most challenging courses offered! We offer honors, Advanced Placement and International Baccalaureate courses. The time and effort you spend in higher level courses will pay dividends when you graduate. Your goals and dreams may change, however, success in challenging and exciting courses will allow you to follow every future dream. Share the Program of Studies with your parents, and/or guardians as you plan together for your high school years and beyond. Review the course selections carefully and make choices that will allow you to develop all of your talents and skills.



Remember that Fitch High School has dedicated and committed teachers, counselors and administrators who are available to assist you in the course selection process.

Have a great school year!

Joseph A. Arcarese  
Principal

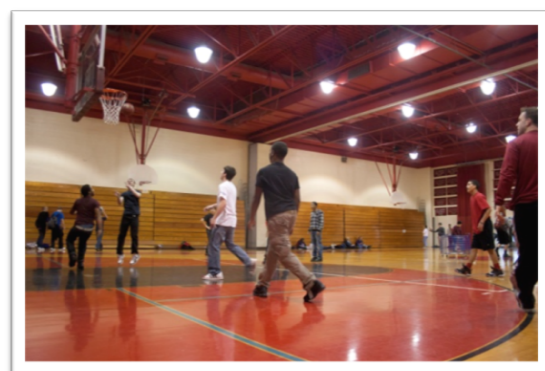
## CORE VALUES AND BELIEFS

Our mission at Robert E. Fitch High School is to educate our young men and women to become outstanding citizens. The faculty and staff will collaborate with the home and community to promote academic excellence, physical wellness, and social awareness. We will encourage our students to use their individual talents to their fullest potential. To this end, our graduates will become informed, responsible adults who respect diversity and value life-long learning.



## ACCREDITATION STATEMENT

Robert E. Fitch High School is accredited by the New England Association of Schools and Colleges, Inc., as a non-governmental, nationally recognized organization whose affiliated institutions include elementary school through collegiate institutions offering post-graduate instruction. Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation. Accreditation by the New England Association is not partial, but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution. Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association.



# 2018-2019 PROGRAM OF STUDIES

## TABLE OF CONTENTS

<b>How to Use This Catalog</b> .....	4
Graduation Requirements .....	5
Important Policies .....	6
Special Programs .....	9
Art .....	11
Business and Finance Technology .....	13
Cooperative Work Education in Diversified Occupations .....	15
English .....	15
Family & Consumer Sciences .....	20
Health/Nursing Assistant .....	20
Mathematics .....	21
Music .....	24
Physical Education.....	26
Science .....	27
Social Studies .....	31
Technology .....	34
World Language .....	36
Advanced Placement (AP) .....	42
International Baccalaureate (IB) .....	43
Early College Experience (ECE) .....	44
College Career Pathways (CCP) .....	46
Project Lead the Way (PLTW) .....	46

## HOW TO USE THIS CATALOG

1. Read all the information in Graduation Requirements and Important Policies.
2. Review your past academic records.
3. Consider your goals and the courses and programs available at Fitch High School that will help you to achieve these goals.
4. Discuss your plans with your family and with your school counselor in order to develop your own long-range program.
5. Retain a copy of this catalog for reference.

## GRADUATION REQUIREMENT REGULATIONS

### CREDIT DISTRIBUTION

The following credits must be earned:

English	4 credits
Mathematics	4 credits
Science	4 credits (1 in Biological and 1 in Physical Science)
Social Studies	3 credits (1 in US History and 0.5 in Civics)
Health	0.5 credit
Physical Education	1 credit
Fine Arts	1 credit
Applied Arts	1 credit
<u>Electives</u>	<u>7.5 credits</u>
Total:	26 credits

### ELECTIVES

**Elective choices should be made on the basis of interest, academic and career planning.**

#### Department Electives which meet the Applied Arts 1.0 Credit Requirement

Business and Finance Technology  
Computer  
Culinary Arts  
Technology  
Nursing Assistant/Health

#### Department Electives which meet the Fine Arts 1.0 Credit Requirement

Art  
Music  
Theatre

### COLLEGE PLANNING AND ADMISSION

All colleges have created admission requirements, which are clearly defined in print and online. It is critical that you commit to a plan that will allow you to reach your goal. In the back of the Course of Studies are typical Fitch High School schedules that allow you to prepare for success at a community college, a standard college setting or our most challenging schedules (AP/IB) which would allow you to contend for a seat at the most competitive colleges.

The Connecticut University System generally requires at a minimum:

- 4 or more credits in English
- 3 or more credits of Mathematics (through Algebra 2)
- 4 credits are strongly recommended
- 3 or more credits for World Language
- 3 credits are strongly recommended
- 3 credits of Social Studies
- 4 credits are strongly recommended
- 3 credits of Laboratory Sciences
- 4 credits are strongly recommended

Colleges want you to take on the most challenging schedule that you can handle. They would rather see you earn a C+ in a very challenging class than an A in a course that you did not have to work at. In addition to your course selection and report cards, colleges will also take into account SAT and ACT scores along with class rank, recommendations and activities.

Fitch High School is a local test center for both the SAT and ACT. Fitch School Counselors encourage students to take both tests to see what format they do best on. Each year many college representatives visit Fitch High to talk to students about programs of study, admission and activities at their college. These visits are publicized on the daily notices and posters.

## NAVIANCE

Naviance is a web-based research and planning tool for Fitch High School students and school counselors. The website manages individual students as they move through the entire college planning, application, and decision process. Through Naviance, counselors and students can communicate about upcoming deadlines and important notices. Naviance is an important resource for college and career planning and can assist the student with making informed decisions about his/her future. Naviance allows you to search for colleges, compare academic statistics, find scholarship opportunities, and research careers. Each student and parent is provided with a personal access code and instructions for accessing Family Connection. If you are having problems, you will be able to sign on and contact the School Counseling Office. The Web address for Family Connection for Fitch High School is: <https://connection.naviance.com/fitch>.

## NCAA CLEARINGHOUSE

Student athletes interested in pursuing a career in collegiate athletics must make an appointment with their school counselor to inform them of their intent. The student athlete and school counselor will create a four- year plan that is appropriate for the division of interest. Prospective Division I & II collegiate athletes are required to go through the NCAA Clearinghouse for eligibility. For more information regarding NCAA eligibility please visit [www.eligibilitycenter.org](http://www.eligibilitycenter.org)

DIVISION I	DIVISION II
<b>16 Core Courses</b> 4 years of English 3 years of Math (Algebra I or higher) 2 years of Natural/Physical Science (1 year of lab if offered) 1 year of additional English, Math or Natural/Physical Science 2 years of Social Science 4 years of additional courses (any area above, foreign language or comparative religion/philosophy)	<b>16 Core Courses</b> 3 years of English 2 years of mathematics (Algebra I or higher) 2 years of natural/physical science (1 year of lab if offered by high school) 3 years of additional English, mathematics or natural/physical science 2 years of social science 4 years of additional courses (from any area above, foreign language or comparative religion/philosophy)

## IMPORTANT POLICIES

### TRANSFER STUDENTS

Students who transfer into Fitch High School during the first or second semester may receive credit for work previously completed if appropriate.

### PROMOTION REQUIREMENTS

#### Grade 9 to Grade 10:

6 credits

#### Grade 10 to Grade 11:

12 credits

#### Grade 11 to Grade 12:

18 credits

#### Grade 12 to graduation:

26 credits

Students will be assigned to the appropriate grade according to this policy. **ONLY** students in Grade 12 will have the privilege of two unassigned credits for the full year. No student may have more than one unassigned period per day.

## CHANGES IN COURSE SCHEDULES

Students may change a course **only if** the change involves moving from one level of difficulty to another in the same subject area. Approval must be received from the counselor, parent, and subject area teacher. Exceptions will be made only under special circumstances.

## OPTION TO TAKE COURSE PASS/FAIL

Grade 12 students may apply to the appropriate teacher for permission to take an elective course on a Pass/Fail basis. Written parental consent is required, and students will be limited to one such request each semester. Required courses for graduation may NOT be taken on a Pass/Fail basis. This request should be filed in the School Counseling Office during the first 10 days of the course. Requests after 10 days will require special permission. Pass/Fail courses will not be used for class rank or honor roll.

## INDEPENDENT STUDY/TEACHER ASSISTANT

Independent Study/ Teacher Assistant placements will be considered for seniors only, and cannot take the place of a graduation requirement. Some students may need or wish to pursue a subject for which Fitch High School offers no equivalent course. Independent Study/Teacher Assistant is graded appropriately based on work completion. However Independent Study/Teacher Assistant is not used for class rank, honor roll, or honor cords. Students considering Independent Study/Teacher Assistant are urged to consult with their teachers and school counselor.

All requests for Independent Study must be approved by the teacher, administrator, parent, and school counselor. The Independent Study/Teacher Assistant will be in addition to the required course load for students. Independent Study must be in a subject not offered in our course catalog. Such courses must constitute a minimum of 90 hours of work for 1/2 unit of credit, or 180 hours of work for 1 unit of credit.

## HONOR ROLL

Honor Roll takes into account all courses. Grades are assigned as follows and students cannot have a grade below a C. Honors are awarded to students who achieve a 3.00-3.74. High Honors are awarded to students who achieve a 3.75-4.3.

A+ ....	4.3	B+ ....	3.3	C+ ....	2.3	D+ ....	1.3	F .....	0
A .....	4.0	B .....	3.0	C .....	2.0	D .....	1.0		
A-.....	3.7	B-.....	2.7	C- ....	1.7	D- ....	0.7		

## HONOR CORDS

At the end of senior year, students are awarded honor cords for high academic achievement in the respective departments. The criteria for receiving honor cords are as follows:

- In **Mathematics, Science, Social Studies, English and Music** – students have completed at least 4 courses and received an A- or better in each course.
- In **World Languages, Technology, Art, Business, Health and Life Skills** – students must have completed at least 3 courses and received an A- or better in each course.
- In **Physical Education** – students must have completed at least 3 courses and received an A- or better in each course. Students must pass the "Challenge Criteria" of the Connecticut Physical Fitness Mastery Test.

## WEIGHTING OF COURSES (Applies to students in the classes of 2019, 2020)

Levels of difficulty have been established for each major subject area course according to such factors as course content and pace, the nature of the text and reading materials, and the nature of homework assignments. The category of each course is indicated in the course description in the course catalog and Student Handbook. Course categories are:

**Category I** – Honors, AP and IB

**Category IV**– Fine Arts and Applied Arts

**Category II** – College Preparatory

**WEIGHTING OF GRADES (Applies to students in the classes of 2019, 2020)**

Based on category grades are assigned different point values which are used in the computation of class rank. The scale of point values assigned for grades received in courses of various difficulty levels is as follows:

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F	Category
22	21	20	19	18	17	16	15	14	13	12	9	0	AP/IB (beginning 2018-2019)
19	18	17	16	15	14	13	12	11	10	9	6	0	I
16	15	14	13	12	11	10	9	8	7	6	4	0	II

**RANK-IN-CLASS (Applies to students in the classes of 2019, 2020)**

Rank-in-class, considered for admission by some colleges, is based on the grades earned in Category I and II classes computed at the end of each year. The Quality Point Ratio, obtained by adding the points for all final grades in each weighted subject and dividing by the total credit weight of subjects taken, is used to determine class rank. Senior rank in class is determined officially at the end of semester 1 of their senior year.

**2018-2019 Weighting of Grades - Fitch High School**

*(Beginning with the class of 2021)*

Grade	AP/ECE/IB	Honors/Accelerated	Academic/CP/All Other Courses
A+	5.33	4.83	4.33
A	5.00	4.50	4.00
A-	4.67	4.17	3.67
B+	4.33	3.83	3.33
B	4.00	3.50	3.00
B-	3.67	3.17	2.67
C+	3.33	2.83	2.33
C	3.00	2.50	2.00
C-	2.67	2.17	1.67
D+	2.33	1.83	1.33
D	2.00	1.50	1.00
D-	1.67	1.17	0.67
F	0.00	0.00	0.00

**RANK-IN-CLASS (Applies to students in the class of 2021 and beyond)**

Rank-in-class, considered for admission by some colleges, is based on all grades. It is computed at the end of each year for students. The Quality Point Ratio, obtained by adding the points for all final grades in each subject and dividing by the total credit weight of subjects taken, is used to determine class rank. Rank in class is determined officially at the end of semester 1 of their senior year. .

**VALEDICTORIAN AND SALUTATORIAN:**

The Valedictorian and Salutatorian are named at the end of seven semesters after all grades and rankings have been verified by the School Counseling Department. The students receiving the top two weighted GPAs after six semesters will receive the honor of being named the Valedictorian and Salutatorian. (A student must have attended Fitch High School during their sixth and seventh semesters to be named Valedictorian or Salutatorian.)



## **ACADEMIC LETTERS AND CHEVRONS**

Academic letters are awarded each year at the Awards ceremony to sophomores, juniors, and seniors who attain high academic standing.

## **ACADEMIC AND SERVICE AWARDS**

Each year an evening Awards Program is held to present academic and service awards. Typical presentations are listed in the Student Handbook. Letters will be sent home inviting all award winners and their families to the ceremony.

## **ADULT EDUCATION**

Students participating in the Credit Diploma Program (CDP) earn credits by completing courses in all core academic subjects and receive a Groton Board of Education diploma upon completion. The Program also offers the opportunity to earn a High School Equivalency Diploma (GED), classes in Adult Basic Education (ABE) English as a Second Language (ESOL) and Citizenship Preparation. The Adult Education Program is open to all adults residing within the boundaries of Groton Public Schools and you must be 17 years of age and have not completed high school. The program is located at West Side Middle School, 250 Brandegee Avenue in the City of Groton. Classes are on Mondays, Wednesdays and Thursdays from 6:30 p.m. to 9:00 p.m. The telephone number is 860-441-2152.

## **CAREER CLUSTERS**

Careers in Connecticut are explored through the National Career Clusters Pathways Program. There are 16 Career Clusters that identify many career pathways. By ninth grade, your child will be encouraged to seriously evaluate the Clusters to identify potential careers and select an appropriate course of studies that will not only satisfy the graduation requirements, but also will have provided them real and authentic opportunities to explore coursework related to careers of interest. Parents are encouraged to work with teachers and counselors in this process to explore different paths.

## **SPECIAL PROGRAMS**

*If you are interested in any of these programs, it is important to make an appointment with your School Counselor early in your academic career. Four Year Planning is very important.*

### **VIRTUAL HIGH SCHOOL (VHS)**

Juniors and Seniors have the opportunity to take internet-based, distance learning courses via VHS. These courses are standard-based, student-centered online courses intended to expand students' educational opportunities in a collaborative learning environment allowing students to exchange and interact with students from other high schools throughout the country. Currently, one FHS faculty member teaches a VHS NetCourse. In addition, we have a site coordinator who is trained as an advisor and an administrative contact for VHS students at FHS.

### **EARNING COLLEGE CREDIT WHILE AT FITCH HIGH SCHOOL**

Fitch High School offers a number of ways that students can earn college credit while still in high school. These programs are listed below:

#### **ADVANCED PLACEMENT (AP) PROGRAM**

AP is a college level curriculum offered at the high school and designed to prepare students to take an AP Exam at the conclusion of the course. Passing the AP Exam allows colleges to consider awarding college credit. (For more information please see page 32)

#### **INTERNATIONAL BACCALAUREATE (IB) PROGRAM**

This program was designed in the late 1960s for international schools that have a common international curriculum. This program allows students the opportunity to earn college credits. To earn the diploma students must complete all the goals of the IB Program. (For more information please see page 33)

#### **EARLY COLLEGE EXPERIENCE (ECE) PROGRAM- Through The University of Connecticut**

ECE is an opportunity for students to take UConn courses while still in high school. Every UConn ECE course is equivalent to the same course at the University of Connecticut. Courses are taught on the high school campus by high school instructors who have been certified as adjunct faculty members by the University of Connecticut. UConn ECE students benefit by taking college courses in a familiar setting with an instructor they know. Courses offered through UConn ECE are approximately one-tenth of the cost in comparison to taking the same course on a UConn campus. (For more information please see page 34)

#### **COLLEGE CAREER PATHWAYS (CCP) PROGRAM**

This program is in partnership with Three Rivers Community College (TRCC). CCP provides opportunities for seniors to earn college credits during their 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grade years. If the student earns a C or better in the courses, they will earn college credit. (For more information please see page 35)

#### **PROJECT LEAD THE WAY – ENGINEERING PROGRAM**

PLTW Engineering is more than just another high school engineering program. It is about applying engineering, science, math, and technology to solve complex, open-ended problems in a real-world context. Students focus on the process of defining and solving a problem, not on getting the "right" answer. They learn how to apply STEM knowledge, skills, and habits of mind to make the world a better place through innovation. PLTW students have said that PLTW Engineering influenced their post-secondary decisions and helped shape their future. Even for students who do not plan to pursue engineering after high school, the PLTW Engineering program provides opportunities to develop highly transferable skills in collaboration, communication, and critical thinking, which are relevant for any coursework or career. (For more information please see page 35)

### **CAREER AND VOCATIONAL PROGRAMS**

#### **CAREER AND COLLEGE RESOURCE CENTER**

The Career and College Resource Center is located in the School Counseling Office. Students planning on entering the workforce upon graduation will find extensive career information, and information on part-time jobs, mentoring, and internships. Those planning to continue their formal education will find valuable resources to assist in selection and application to college. In addition, video guides, college handbooks, test preparation, and financial aid information is available. Parents are welcome to use the Career Resource Center as well.

#### **COURSE CATEGORIES (Applies to students in the classes of 2018, 2019, 2020)**

Education is a lifelong process. Today's students need to prepare themselves to cope with our continually changing world. Fitch High School, recognizing that not all students are decided on their future plans, encourages all students to challenge themselves during the high school years. Students are urged to read the category descriptions below, and to select the most appropriate level for each course. Most students will find their schedules will include courses from two or more categories each year. Students are urged to consult teachers and school counselors to determine the appropriate course categories in each subject.

##### **· Category I - Honors/AP/IB**

Honors courses are for students with high levels of skill and motivation in pursuing college preparatory work. These courses require considerable in-depth study, independent reading and research, and/or completion of thoughtful tests and reports. Several departments offer honors-level courses to help students prepare for the Advanced Placement and International Baccalaureate programs.

- **Category II - College Prep**

College preparatory courses are open to all students, whether or not they plan to pursue their education beyond high school. These courses require assignments that develop the skills and knowledge base that college bound students are expected to possess.

- **Category IV- Non-Level**

Elective courses are created to allow students the ability to pursue interests outside of the core courses. Elective courses can be taken at the honors level if approved by the teacher.

## **COURSE OFFERINGS**

### **ART**

***\*\*Studio Art and Advanced Studio Art may be repeated for credit.***

#### **Art Foundations (1 Credit)**

This is a basic exploratory course that introduces students to design, freehand drawing, color theory, painting, sculpture, printmaking, crafts, and graphic design. It serves as a prerequisite for all upper level Art courses. It also fulfills the Fine Arts requirement for graduation.

#### **Art Appreciation (.5 Credit)**

This is a basic exploratory class that introduces students to art movements from the beginning of time to the present. Students will become familiar with a variety of artists as well as art media. Studio projects will support course material. This course incorporates reading and writing across the curriculum.

#### **Art Illustration (1 Credit) *Prerequisite: Art Foundations***

This course will enhance the student's ability to think and communicate ideas visually through freehand drawing, painting and mixed media. While advancing their drawing and painting skills, students will be introduced but not limited to a variety of design projects such as book illustration, 2-D design, and cartooning.

#### **Drawing and Design (.5 Credit)**

Students will be introduced to the fundamentals of drawing through exploratory projects in a variety of drawing media.

#### **Introduction to Sculpture (1 Credit)**

This is a basic, exploratory course which introduces students to a variety of sculpture styles and materials. Students will experiment with wire, ceramics, plaster, found objects and much more.

#### **Painting and Design (.5 Credit)**

Painting and design is a basic/exploratory course that focuses on painting styles, building technical skills, vocabulary, and developing knowledge of the visual arts. Students will be able to create meaningful expression through study and experiments of painting and other materials.

#### **Studio Art (1 Credit) *Prerequisite: Art Foundation; Art Illustration is strongly recommended.***

This course follows Art Foundations and is for students with a serious interest in art, who have a strong desire to improve their skills in art with various media and develop their creativity, expand their personal knowledge about art and artists, develop means of individual expression, and challenge themselves.

#### **Advanced Studio Art (1 Credit) *Prerequisite: Art Foundations; Studio Art is strongly recommended***

This course is for students who wish to develop a portfolio for further art study on the college or art school level. Emphasis is placed on further drawing and painting skills and on personal expression.

**IB Visual Arts HL 11 (1 Credit) Prerequisite: Minimum of one art class or portfolio review and recommendation letter from the teacher.**

In the IB Visual Arts class, students will work on two-dimensional and three-dimensional art forms such as painting, collage, mixed media, drawing, sculpture, printmaking, ceramics, computer graphics and design. Students will work independently on specific areas of interest that will enrich self-expression and personal growth through research workbooks and studio art. Additionally, students will be expected to discover, analyze and interpret art from other cultures. Most importantly, students will be asked to reflect upon how they view themselves in relation to our global society through the study of art.

**IB Visual Arts HL 12 (1 Credit) Prerequisite: IB Visual Arts 11**

**Photography (.5 Credit)** This is an introductory course in photography. Students will be provided with the opportunity to gain skill related to digital editing with Adobe Photoshop. Emphasis will be placed on proper handling of equipment and developing visual literacy. The school will provide digital cameras for use during class time. Photography is a project-oriented course. As a result, good attendance and participation are necessary for success. ***This course is suggested for 10th grade and above due to the use of equipment and safety requirements.***

**Photography II (.5 Credit) Prerequisite: Photography I**

This course focuses on refining the skills learned in Photography I. Students will continue to develop visual literacy skills in terms of looking at and reflecting upon their own art, the art of their peers, and the art of well-known photographers. Current world issues will be discussed and connected to the curriculum. In the studio, students will be further controlling the outcome of their artwork through the use of manual settings with projects connected to the school community and the greater Groton community, as well as in depth personal assignments. Students will be encouraged to find topics they are passionate about and create artwork around their independent ideas.

**Honors Photography III (.5 Credit) Prerequisite: Photography I and II**

To help prepare students interested in a career or a degree in photography, need additional courses to learn more in-depth skills related to but not limited to; studio lighting, camera controls, portfolio development and Photoshop skills. This course would be open to students who would like to take this at Honors level and are prepared to further their photo experience.

**Jewelry and Metals I (1 Credit)**

This course will cover basic metal-working and jewelry techniques, design and processes. The design processes learned will be based on the elements and principles of design. Techniques include sawing, filing, soldering, cold connecting, finishing and stone setting. Artwork will involve the use of copper, brass, and nickel. This course will allow an in-depth exploration of a variety of tools and materials and the time needed to refine skills. (Recommended for students who are interested in the 3-D Design section of the AP Studio Art exam portfolio.) ***This course is suggested for 10th grade and above due to the use of equipment and safety requirement***

**Jewelry and Metals II (1 Credit) Prerequisite: Jewelry and Metals I**

In this course, students will refine basic metalsmithing techniques learned in Jewelry and Metals I. Students will learn new techniques such as Mokume Gane, Cloisonne Enameling and Raising. Increased complexity in artistic design and construction is emphasized. Students will continue to research the work of artists not only in regard to finished products but in relation to how artists develop ideas or techniques as well. Students are encouraged to show a strong work ethic as well as research new metalworking techniques on their own. Artwork will involve the use of copper, brass, and nickel silver. Metals will be supplied while semi-precious stones and sterling silver are to be supplied by the student.

***Maximum of 20 students.***

**Graphic Design (1 credit)**

This is a beginning level graphic design art course that introduces the elements and principles of design, spatial relationships, typography and imagery as they apply to practical visual solutions. Instruction touches on the practice, theories, history and processes of the graphic design industry. The focus will be on finding creative visual solutions to communication problems using Photoshop skills. Students will also become familiar with a variety of artist and art movements as they work through course objectives.

## **Business and Finance Technology**

**IB Information and Technology in a Global Society (ITGS) I (1 Credit)**

IB ITGS follows curriculum prescribed by the IBO and students will investigate issues involving hardware, software and the responsible and ethical use of information technology. Students in ITGS will develop a greater understanding and appreciation of the impact information technology has on individuals, communities and societies. The course will focus on two main topics:

1. Technical understanding of information technology systems and networks;
2. The impact and role of information technology in modern global society.

Students will be responsible for understanding and using information technologies and be able to evaluate the significance of the technologies as they relate to the global society.

**IB Information and Technology in a Global Society (ITGS) II (1.0 Credit)**

ITGS II is primarily for the IB student who is seeking an IB Diploma or Certificate, and has completed ITGS 1. ITGS 1 & 2 completes the IB Group 3 requirement. Year 2 is spent completing an extensive information technology project and paper and preparing for the IB examinations in May.

**Microsoft Office – Word, Excel, Access, PowerPoint (.5 Credit)**

This course extends basic skills in Microsoft Office applications (Word, Excel, PowerPoint, and Access). Students will develop skills and knowledge necessary to be successful in post-secondary and career settings. Communication and problem solving skills will be emphasized and developed through a project-based learning approach. This is an excellent follow-up course of skills introduced in Freshman Seminar. Highly recommended for all students.

**Microsoft Office II (.5 credit)**

A continuation of Microsoft Office 2 with more advanced skills in Word and Excel integration. We will also learn some advanced business communication/presentation skills using PowerPoint as a tool. An introduction to data-bases and Microsoft Access will round out the course.

**Business Management and Entrepreneurship (1 Credit)**

This is an introduction to management concepts, theory, and practice. Contemporary trends, issues, and management practices will be included. A project that will take students through the process of starting a small business will illustrate the step-by-step technical and non-technical skills necessary to successfully operate a business.

**Business Law (.5 Credit)**

Investigating the legal system and its effect on citizens and young adults. With an emphasis on contractual and commercial law, this includes a short research paper. Recommended for 11th and 12th grade students. The high school offers a variety of courses that, when taken with an identified interest, provide a solid foundation of basic skills

necessary to start a career pathway. Accounting, business/finance (including office technology) culinary arts, health occupations, technology education, and retail marketing are some of the career clusters available.

### **Personal Finance (.5 Credit)**

A must for every student! Practical skills in personal financial literacy that provide a foundation for making informed financial decisions. Students will be introduced to financial concepts and develop skills to be able to survive and prosper in our complex economy. Topics covered will include: income and money management, spending and credit, budgeting, banking and financial services, financial implications of home and automobile purchasing, insurance, investments, and retirement planning. Basic math skills are required.

### **Honors Personal Finance I (.5 Credit)**

Honors Personal Finance I offers an opportunity for students to develop critical skills of analysis, synthesis, and evaluation in a more rigorous and reflective academic setting. Students are empowered to perform at higher levels as they learn the ideas, concepts, knowledge and skills that will enable them to implement beneficial personal decision-making choices; to become wise, successful, and knowledgeable consumers, savers, investors, users of credit and money managers; and to be participating members of a global workforce and society.

### **Honors Personal Finance II (.5 Credit)**

In this course, students will understand how a bank or financial institution functions as a business and the role it plays in the U.S. economy. Everyone must make financial decisions; this course will give students the knowledge to make those decisions. This course will provide immediately useful banking knowledge as well as the foundation for new learning and enhanced career opportunities. Students will have the opportunity to learn banking systems through on-the-job training with Charter Oak Federal Credit Union. This real-work experience will enable the student to be employable in our on-site branch of Charter Oak Federal Credit Union. Whether the student chooses to do the on-the-job training or not, each student will take away a valuable work experience and new learnings to serve him or her in future endeavors.

### **Accounting I (1 Credit)**

Students are introduced to basic accounting concepts, principles, and procedures. Financial transactions are analyzed, recorded, and financial statements produced for service and merchandising businesses, using both manual and computerized accounting systems. **\*\*This course may be used toward minimum mathematics requirements for graduation.**

### **Honors Accounting II (1 Credit) Prerequisite: Accounting I**

This course is a serious study of the technical, analytical, and interpretive phases of accounting. Includes practice sets and computerized accounting. **\*\*This course may be used toward minimum mathematics requirements for graduation.**

### **IB Business Management I (1 Credit)**

The IB Business Management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate. It covers the key characteristics of business organization and environment and the business functions of human resource management, finance and accounts, marketing and operations management. Links between the topics are central to the course. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools and techniques and placed in the context of real world examples and case studies.

The course encourages the appreciation of ethical concerns at both a local and global level. It aims to develop relevant and transferable skills, including the ability to: think critically; make ethically sound and well-informed decisions;

appreciate the pace, nature and significance of change; think strategically; and undertake long term planning, analysis and evaluation. The course also develops subject-specific skills, such as financial analysis

### **IB Business Management II (1 Credit)**

#### **Marketing I (1 Credit)**

Introductory course designed to develop an understanding of concepts and strategies needed to communicate information about products, services and/or ideas. Hands-on experience for marketing and business management is gained through Falcon Central, the school store. The course is designed to provide basics for entry-level positions and to prepare students for career opportunities in the business field.

#### **Honors Marketing II: Sports and Entertainment (1 Credit) *Prerequisite: Marketing I***

Curriculum centers on sports and entertainment marketing, a specialized course designed to offer students an opportunity to gain knowledge and develop skills related to the growing sports and entertainment industry. Students will develop skills in the areas of facility design, merchandising, advertising, public relations/publicity, event marketing, sponsoring, ticket distribution, and career opportunities as they relate to the sports and entertainment industry. Students are expected to apply knowledge gained from Marketing I and will be responsible for applying their knowledge in the development of new products and services for Falcon Central. This course offers preparation for management trainees and college marketing majors.

#### **Cooperative Work Experience (CWE) (1 Credit)**

This course provides students with an opportunity to explore different careers, learn about entrepreneurship, practice professional communication skills and interviewing skills, develop job readiness skills and higher-level thinking skills in order to problem solve in the workplace.

## **English**

### **PLEASE NOTE:**

All students must earn 4.0 credits in English in order to graduate. In addition to the required English course, students may take any of a number of the elective courses the English Department offers. These classes count toward elective courses for graduation but do not count towards the English credit requirement.

#### **Honors English 9 (1 Credit)**

This course is designed for those students with high levels of skill, motivation, and achievement in reading and writing. Units of study include composition, short story, epic, drama, novel, vocabulary, essay, and poetry.

#### **CP English 9 (1 Credit)**

This course is designed for those students who are reading at grade level and have demonstrated competency in language skills. Units of study will include composition, short stories, epic, drama, novel, vocabulary, essay, and poetry.

#### **Honors English 10 (1 Credit)**

This course is designed for those students with high levels of skill, motivation, and achievement in English. Units of study include composition, the position paper, vocabulary, essay, drama, novel, poetry, and short story.

#### **CP English 10 (1 Credit)**

This course is for those students who are reading at grade level and who have demonstrated competency in language skills. Units of study include composition, the position paper, vocabulary, essay, drama, novel, poetry, and short story.

#### **IB English 11 (1 Credit)**

This course is designed for all International Baccalaureate Diploma candidates who have demonstrated high levels of skill, motivation, and achievement in English. Students will engage in extensive reading, analysis, and writing to prepare for the IB internal and external assessments. IB students may also sit for the AP English Language and Composition Exam. Summer reading and writing assignment required.

#### **AP/UCONN ECE English 11 (1 Credit)**

This course is designed for those students with high levels of skill, motivation and achievement in English. Students will engage in extensive reading, analysis, and expository writing based on themes of American literature. This course incorporates material to help prepare students for the Advanced Placement Exam in English Language and Composition. There is a summer reading assignment.

#### **CP English 11 (1 Credit)**

This course is designed for those students who are reading at grade level and who have demonstrated competency in language skills. Units of study include composition, grammar, and vocabulary, as well as themes in American literature

#### **IB English 12 (1 Credit)**

This course is designed for all International Baccalaureate Diploma candidates who have demonstrated high levels of skill, motivation, and achievement in English. Students will engage in extensive reading, analysis, and writing to prepare for the IB internal and external assessments. IB students may also sit for the AP English Literature and Composition Exam. There is a summer reading and writing assignment.

#### **AP/UConn ECE English 12 (1 Credit)**

This course is designed to allow students to earn four (4) transferrable University of Connecticut college credits in English Composition and Literature. Intensive reading and writing assignments emphasize literary analysis. This course incorporates material that prepares students to take the Advanced Placement Exam in English Literature. There is a summer reading assignment. **There is a registration fee for this UConn course.**

#### **CP English 12 (1 Credit)**

This course is for those students who are reading at grade level and who have demonstrated competency in language skills. Units of study include composition, vocabulary, SAT preparation, grammar usage, and oral skills. British, contemporary, and world literature form the basis of the course.

#### **CP African-American Literature (1 Credit)**

This course is for those 12th graders who are reading at grade level and who have demonstrated competency in language and writing skills. Units of study range from the historical period of slavery to present day. This course is designed to recognize the brilliance and cultural significance of African-American Literature and its impact socially and historically. Some student requirements include: completion of a Research Paper, College Essay, SAT Prep, vocabulary, timed writings, creative writing, group projects, and oral presentations; all of which will be utilizing 21st Century skills. This course satisfies the English requirement for Seniors and may only be taken in the Senior year.

#### **English 9-10 Workshop (2 credits)**

This course is for students who are in need of both a 9th and 10th grade English credit. This course is intended to be an alternative route to recovering credit for students in need of it as well as a preparatory course for their integration back into a college-prep level English class. Students in this class are required to take either a Reading Intervention (1 credit) or Writing Intervention (1 credit) course in concert with this workshop class. It should be noted that student who complete this class and their given intervention class will receive 2 English credits, thereby restoring their lost credit and earning their current credit..

#### **English 11-12 Workshop (2 credits)**



This course is for students who are in need of both an 11th and 12th grade English credit. This course is intended to be an alternative route to recovering credit for students in need of it as well as a preparatory course for their integration back into a college-prep level English class. Students in this class are required to take either a Reading Intervention (1 credit) or Writing Intervention (1 credit) course in concert with this workshop class. It should be noted that student who complete this class and their given intervention class will receive 2 English credits, thereby restoring their lost credit and earning their current credit.

## **English Elective Courses**

### **Horror Stories (.5 Credit)**

This academic elective will serve as an introductory study of the popular genre of horror stories. Students will analyze how horror stories can instill fear, anxiety, and revulsion in a reader. Students will be expected to read, write about, and discuss literary, image-based, and film-based texts on a regular basis. Additionally, students will be expected to read criticism and professional readings on horror stories.

### **Children's Literature (.5 Credit)**

This course is designed to encourage young adults to look more critically at the children's books they may have read in their earlier years or may read to children they babysit for, or, when they become parents, to their own children. Students will discuss the themes and purposes of the particular children's books. They will learn how to select children's books that are appropriate to the age, developmental level, interests, and backgrounds of a particular young audience. Students will also learn how to read to children actively and to engage them in the magic of the story. Students will be given the opportunity to create their own books for children and to serve as readers or volunteers in local libraries for story hours or other children's literature activities..

### **Adolescent Literature (.5 Credit)**

In Adolescent Literature, students will read, write about, analyze, and discuss the common themes, narrative structures, and widespread appeal of stories involving teenage characters. Students will also be expected to read articles on the widely popular adolescent literature market known as "Young Adult Literature."

### **Creative Writing (.5 Credit)**

This course offers instruction and experience in creating characters and events for students to incorporate into writing their own fiction, poetry and drama. This course may be repeated for credit.

### **Film Analysis, Composition, and Criticism (.5 Credit)**

This course incorporates the reading, writing, listening, speaking and viewing goals of the Groton Public Schools to analyze and criticize film from 1896 - present. This course requires careful and consistent participation in class and in presenting written and oral assignments based on the intelligent and engaged analysis of film.

### **Journalism (.5 Credit)**

This course provides study of and practice in all phases of scholastic journalism and provides a practical introduction to reporting, interviewing, copy editing, layout and design, photography, and editorial writing. Student writing will be incorporated into production of the school newspaper, *The Scarlet Tanager*.

### **Mythology (.5 Credit)**

This course will help students learn the stories, characters, and concerns of classical mythology. Works to be studied include *The Iliad* and *The Odyssey* of Homer as well as the Greek myths of creation. The course includes the Greek gods and heroes (Prometheus, Hercules, Jason and the Argonauts), classical love myths (Pyramus and Thisbe, Apollo and Daphne, Echo and Narcissus) and how those stories and themes are reinterpreted in literature throughout the centuries.

**Poetry (.5 Credit)**

This course is designed for students who have a deep interest in the particular conventions and demands of poetry. Students will learn and examine the structure of various poetic forms and will gain an understanding of the special demands of diction, syntax, imagery, symbolism, rhythm, rhyme and other sound elements in poetic forms. Students will be required to read and write a wide variety of poetic forms from different cultures and time periods.

**Oral Communication (.5 Credit)**

This course provides instruction in planning and delivering different types of presentations and speeches, including extemporaneous, impromptu, and oratorical.

**Theater Arts (.5 Credit)**

This course is an introduction to theater history and the structure and elements of a play. Students will interpret and evaluate a variety of productions. Students will perform exercises in voice, diction, and improvisation.

**Theory of Knowledge I (.5 Credit) Taken Spring Semester of Junior Year****Theory of Knowledge II (.5 Credit) Taken Fall of Senior Year.**

Theory of Knowledge is a unique course offered to IB students. It is an important component in providing a holistic education to students seeking an internationally accepted diploma. The course explores our ways of knowing and the need to validate our "knowledge claims." Students will be required to submit an essay in response to a (one) specific prompt from a list of prescribed topics. IB asks students to draw on their broad academic and reasoning skills in writing their 1200 word essay (Senior year).

**Reading Intervention (1 Credit)**

Reading Intervention is designed to provide intensive support to high school students identified for strategic intervention concurrently enrolled in College Prep English. Students identified as needing additional instruction and support in reading skills to encourage ongoing growth and development of critical thinking skills. Diagnostic assessment tools will be used, so students work on the gaps in their learning. This additional period supports the core period and allows the opportunity to preview, review or reteach the standards covered in their core class.

**Writing Intervention (1 Credit)**

Writing Intervention is designed to provide intensive support to high school students identified for strategic intervention concurrently enrolled in College Prep English. Students identified as needing additional instruction and support in writing skills to encourage ongoing growth and development of critical thinking skills. Diagnostic assessment tools will be used, so students work on the gaps in their learning. This additional period supports the core period and allows the opportunity to preview, review or reteach the standards covered in their core class.

**UConn ECE Writing (1 Credit)**

ECE Basic Writing works with the development of the reading and writing skills essential to university work. The course works to develop students who are not yet qualified to take the required academic writing seminar (ENGL 1010 or 1011) but who would benefit from a preparatory course that carries college credit. Reserved for high school seniors only.

**ELL Coaching 1 (1 Credit)**

This course is intended for ELL students who need support understanding and completing assignments and/or tests in their other scheduled classes. It allows the ELL teacher and tutors to work with individual students to help them build and understand content area vocabulary, concepts while continuing with English language acquisition skills as mandated by the CSDE. The primary focus of the ELL Coach class is to help meet the individual needs of the level 3 student as identified by the LAS-Links test results. This course is for all students enrolled in the ELL class or for students who scored on a level 3 on the LAS test if they are recommended for extra support.

**English 9-10 & 11-12 Cohort (1 Credit)**

This course introduces students of other languages to vocabulary and basic structures of the English language through reading, writing, speaking, and listening. The students learn vocabulary, oral skills, to write complete sentences and a standard paragraph in English. This course is intended for students who score an English Proficiency Level 1 or 2 in the state mandated LAS-Links test. Subsequent enrollment for a second year will provide the student with the opportunity to expand oral and written skills and competency development in the English language

**SAT Prep Verbal (.5 Credit)**

This course is intended to sharpen the skills necessary to increase scores and prepare students to take the SAT. Students will be well-versed in the NEW SAT format and will practice the skills needed to be successful on that test. Students may also take the course if they have already taken the SAT and wish to increase their scores. Practice tests will also be employed to prepare students for this timed test.

**Yearbook (1 credit)**

This course creates the yearbook from beginning to distribution. Students will learn the details involved in creating a high school yearbook, be responsible for the production of each section, adhere to deadlines, take pictures of school-related activities, interview people, and be responsible for all aspects of the creation and distribution of the school yearbook.

**Freshman Academic Seminar (.5 Credit)**

Freshman Academic Seminar is a one-year course dedicated to helping freshmen become successful in high school and beyond. The curriculum is divided into two major academic areas: English & Business/ Information Technology. Students will read, write and evaluate information across the curriculum areas; and students will make connections among the core academic areas, elective areas, and real-life learning outside of school. Lessons will use a variety of innovative and traditional techniques that prepare for 21st Century Learning. Students will complete independent work, small group work, and they will participate in Socratic seminars. Career and college planning, basic personal finance, and CAPT prep will be essential to the course.

## **Family & Consumer Sciences**

The following classroom activities are an integral part of all Health and Life Skills and Family and Consumer Science courses: group work, individual projects, lab participation, textbook reading, Internet resources and workbook pages, written quizzes and tests. All these activities are necessary for accurate application of theory. Students may take only one foods class each semester from the following: Foods I or Culinary I

**Foods I (1 Credit)**

In this basic foods course students will learn about nutrition, safety and sanitation, mealtime etiquette, cooking tools and equipment, recipe skills, food careers and basic principles of food preparation.

**Falcon Cafe (.5 Credit)****Culinary Arts I (1 Credit) Prerequisite:-Foods I**

Food preparation in this course will support the Falcon Café breakfast and luncheon menus. Food service entry level skills including, good work habits, a positive attitude and becoming a team player will be developed while creating works of art in baking, pastry and food production. This course will also require students to interact with the public at Falcon Cafe and possible Culinary competitions in a successful manner.

## Health/ Nursing Assistant

### **Health (.5 Credit)**

This course is designed to help students become health, effective, and productive citizens. The curriculum addresses the physical, mental, emotional and social dimensions of health. It is designed to motivate and assist students to maintain and improve their health, prevent disease, and reduce health-related risk behaviors, helping them to develop and demonstrate health-related knowledge, attitudes, skills and practices.

### **Specialized Health (.5 Credit)**

The course includes an appropriate curriculum for teaching the current Health curriculum to adolescents with significant cognitive impairments. We have identified the Oak Hill School's Positive Choices Program as the best match for our students for several reasons. It is aligned to the CT Health Standards and recommended by the Health Consultant at the CSDE and the lessons and resource materials are developmentally appropriate for adolescents with cognitive delays. The Positive Choices Curriculum has a scope and sequence which consists of 31 instructional units of lessons, rubrics to assess skills development and videos to supplement the lessons

### **Diversified Health Occupations (1 Credit)**

This course is designed to stimulate interest in medical-related careers and human services. Students will obtain the basic skills and information needed to enter these fields and will develop an accurate and contemporary picture of our changing health care system. Topics include medical and legal ethics, communicable diseases, medical careers and contemporary healthcare issues. Emphasis is placed on the medical career opportunities available today. This course is also prerequisite for those students who want to take the Honors Nursing Assistant Course.

### **Honors Nursing Assistant (2 Credits) *Prerequisite: Diversified Health Occupations***

This course is designed for Grade 11 and Grade 12 students who have successfully completed Diversified Health O and are interested in nursing and its related fields. Course is limited to 16 students and selection is concurrent with the recommendation of the teacher. Students must receive at least a 70 average in Semester 1 to continue to Semester 2. 120 hours of coursework includes: basic anatomy and physiology, patient-related conditions and illnesses, communication, observation, ethical responsibilities, and nursing procedures and skills. Supervised clinical experiences are held at a long-term care facility and hospital beginning in October and must total at least 60 hours. Successful completion of this one year program and at least a 70 on the State Certification exam entitles the student to a Certified Nursing Assistant (CNA) Certificate that is approved by the State Department of Education and the State Department of Health.

## Mathematics

### **Computer Programming (1 Credit) *Prerequisite: 1 year of Algebra***

This elective course consists of writing and running programs of a mathematical and statistical nature using state of the art programming language. Emphasis will be on data types, procedures, and records. Graphics programs will be included and cover files, advanced records, pointers, linked lists, stacks and queues will also be covered.

### **Honors Algebra II (1 Credit) *Prerequisite: Algebra I with recommendation of a B+ or higher***

The concepts of algebra including linear functions, absolute value functions and systems of equations are reviewed. An in depth study of polynomials and factoring facilitates the study of quadratic, polynomial and exponential functions, both algebraically and graphically. Critical thinking skills are developed through examination of problems in the following four

strands: algebraic reasoning; numerical and proportional reasoning; probability and statistics; and, geometry and measurement.

**Honors Geometry (1 Credit) *Prerequisite:* Honors Algebra II with a B- or higher**

The concepts of perimeter/circumference and area of two dimensional figures are used to determine the surface area and volume of three dimensional figures, including prisms, cylinders, pyramids, cones and spheres. The Pythagorean Theorem and trigonometric concepts are thoroughly examined and applied. The understanding of the properties of lines and planes are used for a comprehensive study of angles, triangles, polygons, circles, proofs and pattern recognition. All concepts are analyzed graphically and algebraically. Critical thinking skills are developed through examination of problems in the following four strands: algebraic reasoning; numerical and proportional reasoning; probability and statistics; and, geometry and measurement.

**Honors Pre-Calculus (1 Credit) (CCP Approved) *Prerequisite:* Honors Algebra II or Algebra III)**

An in depth algebraic and geometric analysis of linear, quadratic, absolute value, polynomial, step, rational, radical, exponential and logarithmic functions is conducted. Trigonometric functions are thoroughly examined using degree and radian measure. Trigonometric identities are explored and utilized.

**Honors Calculus (1 Credit) *Prerequisite:* Honors Pre-Calculus with a C or higher)**

All functions and trigonometric identities are reviewed. The concepts of limits, continuity, derivatives and integration are introduced and developed. Emphasis will be on determining limits and derivatives of a variety of functions. Applications of derivatives to real world problems such as maximizing area and profit will be emphasized.

**CP Algebra I (1 Credit)**

The rules and properties of algebra are examined and applied. Algebraic properties are applied to solve one, two, and multi step linear equations. The concepts of data analysis, linear graphing and regression, systems of equations, and functions and relations are fully developed. Polynomials and factoring are introduced and developed. Critical thinking skills are developed through examination of problems in the following four strands: algebraic reasoning; numerical and proportional reasoning; probability and statistics; and, geometry and measurement.

**CP Geometry (1 Credit) *Prerequisite:* CP Algebra I**

The course begins with a review and further development of perimeter/circumference and area of two dimensional figures and surface area and volume of three dimensional figures, including prisms, cylinders, cones, pyramids and spheres. The concept of a unit of length is used to study segments, angles, triangles, polygons, circles, as well as similarity and scaling factors. The Pythagorean Theorem is explored and applied to solve area, surface area and volume problems. Right Triangle Trigonometry is introduced and developed. Critical thinking skills are developed through examination of problems in the following four strands: algebraic reasoning; numerical and proportional reasoning; probability and statistics; and, geometry and measurement.

**CP Algebra II (1 Credit)**

This course focuses on the four critical areas of the Common Core model pathway for Algebra II: functions, polynomials, periodic phenomena, and collecting and analyzing data. The course begins with a review of linear functions. Students then investigate Quadratic and Exponential functions. Students will make connections between verbal, numerical, algebraic, and graphical representations of functions and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real-world problems. The Common Core practice standards are embedded throughout the course, as students solve problems, reason abstractly, and think critically.

**CP Algebra III (1 Credit) (CCP Approved) *Prerequisite:* CP Algebra II and/or CP Geometry**

Linear, quadratic and polynomial functions are reviewed. Rational, exponential, and logarithmic functions are explored algebraically and graphically. Trigonometric functions are also explored algebraically and graphically.

### **CP Statistics and Probability (1 Credit) *Prerequisite: Algebra I***

The course is designed to build the laws of probability, statistics and game theory through the models of well-known games and sports. Fundamental laws of probability will be developed and applied to games such as backgammon, lotteries and more.

### **AP Calculus AB (1 Credit)**

This course is a study of the calculus that will be equivalent to one semester of study on the college level. Topics include the following: functions, graphs, limits, continuity, derivatives, and applications of derivatives, integrals, techniques and applications of antidifferentiation, slope fields and other topics. Classroom activity will involve use of the TI-83 graphing calculator. Students will be expected to take the AP Calculus AB Exam in May.

### **AP Calculus BC (1 Credit)**

This course is designed to provide students with a learning experience equivalent to two semesters of college level calculus. Topics include all AB Calculus topics as well as parametric, polar, and vector functions; applications of integrals; and polynomial approximations and series including series of constants and Taylor series. Classroom activity will involve use of the TI-83 graphing calculator. Students will be expected to take the AP Calculus BC Exam in May.

### **AP Computer Science (1 Credit)**

AP Computer Science is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.

### **AP Statistics and Probability (1 Credit)**

The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding

### **IB Math Studies SL 11 (1 Credit)**

Math Studies offers students opportunities to learn important concepts and techniques and to gain an understanding of a wide variety of mathematical topics. The syllabus is organized giving greater emphasis to developing students' mathematical reasoning; to enhance critical thinking; solving mathematical problems embedded in a wide range of contexts: using the calculator effectively. The course includes project work, a feature unique to mathematical studies SL. Each student completes a project based on their own research; this is guided and supervised by the teacher. The project provides an opportunity for students to carry out a mathematical study of their choice using their own experience, knowledge and skills acquired during the course. This process allows them to take sole responsibility for a part of their studies in mathematics. Math Studies 11 is the first year of a two-year course.

### **IB Math Studies SL 12 (1 Credit)**

Math Studies caters to students with varied backgrounds and abilities. More specifically, it is designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for mathematics in their future studies. The course consists of the study of eight core topics: number and algebra; functions and equations, circular functions and trigonometry, vector geometry, matrices and transformations, statistics, probability and calculus. Additionally, one option from a separate list of topic areas is chosen such as relations and groups, discrete mathematics, or analysis and approximation. A required portfolio will consist of three assignments based on different areas of the syllabus, representing each of the following activities: mathematical investigation, extended closed-problem solving and mathematical modeling. The portfolio provides an opportunity for the student to undertake an investigation of a mathematical nature in the context of another subject in the curriculum, a hobby or interest of his/her choice using skills learned before and during the mathematical studies course. This process allows students to ask their own questions about mathematics and to acquire ownership of a part of the program.

### **IB Mathematics HL 11 (1 Credit)**

This course is for students with a good background in mathematics who are competent in a range of analytical and technical skills. The nature of this courses focuses on developing important mathematical concepts in a comprehensible, coherent and rigorous way. Students are encouraged to apply their mathematical knowledge to solving problems set in a variety of meaningful contexts. Development of each topic should feature justification and proof of results. Students embarking on this course should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different topic areas. The internal assessment requirement is portfolio offering students the framework for developing independence in their mathematical learning through engaging in mathematical investigation and mathematical modeling. This course is a demanding one, requiring students to study a broad range of mathematical topics. Students who wish to pursue a career in physics, engineering and technology are strongly urged to enroll. IB Math HL 11 is the first year of a two-year course.

### **IB Mathematics HL 12 (1 Credit)**

This course is for students with a good background in mathematics who are competent in a range of analytical and technical skills. The nature of this courses focuses on developing important mathematical concepts in a comprehensible, coherent and rigorous way. Students are encouraged to apply their mathematical knowledge to solving problems set in a variety of meaningful contexts.

Development of each topic should feature justification and proof of results. Students embarking on this course should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different topic areas. The internal assessment requirement is portfolio offering students the framework for developing independence in their mathematical learning through engaging in mathematical investigation and mathematical modeling. This course is a demanding one, requiring students to study a broad range of mathematical topics. Students who wish to pursue a career in physics, engineering and technology are strongly urged to enroll.

### **College Readiness Mathematics (1 Credit)**

This course is targeted for students who are not yet “college ready” in mathematics or simply need some additional instruction in content to prepare them for success in college level mathematics. This course incorporates the Common Core Standards for Mathematical Practices. Topics covered include Expressions and Equations, The Number System, Functions, Algebra, Geometry, Statistics and Probability. The course offers student activities in a range of applied contexts and helps students develop college and career readiness skills.

### **Math Intervention (1 Credit)**

Math Intervention is designed to provide intensive support to high school students identified for strategic intervention concurrently enrolled in College Prep Math. This course will help students build their conceptual understanding of content while practicing necessary fundamental skills. Diagnostic assessment tools will be used, so students work on the gaps in their learning. This additional period supports the core period and allows the opportunity to preview, review or reteach the standards covered in their core class

### **SAT Prep Math (.5 Credit)**

You will get a complete review of the topics covered in the math portion of the SAT Reasoning Test. Problem-solving abilities will be greatly enhanced. Throughout the course, students will be provided with all the mathematical insights, shortcuts, strategies and critical thinking skills needed to be well prepared for the test

## **Music**

The FHS Music Department offers a variety of performance ensembles. Enrollment in an ensemble is required to be eligible for Regionals and All-State. Students enrolled receive credit as noted below. Attendance is required for all performances.

### **Falcon Marching Band/Color Guard**

**(.5 Credit) Offered: Fall (Grades 9 – 12)**

**Prerequisite: Previous enrollment in an ensemble and proficiency on a wind or percussion instrument.**

***Students interested in color guard do not need prior experience.***

**Meets on Tuesday and Thursday nights, and Saturdays during the fall.**

The Fitch Falcon Marching Band performs a field show through the art of combining sound, visuals, and motion on a football field. The band is present at home football games and competes at marching band competitions around New England. Emphasis is placed on the further development of musicianship skills and marching fundamentals. The marching band also focuses on teaching and fostering leadership skills, responsibility, teamwork, commitment and instilling a sense of pride in each individual. Students are required to participate in all public performances. ***\*\*Students must register for marching band through the director (Mr. Lefebvre). Participation does not affect a student's course load during the daily class schedule.***

### **Jazz Ensemble (1 Credit)**

**Offered: Full Year (Grades 9 – 12)**

**Prerequisite: Audition Required**

***\*\*9<sup>th</sup> and 10<sup>th</sup> grade students participating in Jazz Ensemble must be registered for an additional ensemble. (i.e. marching band/concert band)***

The Jazz Ensemble performs a balanced repertoire of traditional and modern jazz styles. Styles include, but not limited to swing, bebop, Latin, and funk. Emphasis is placed on the development of jazz techniques such as phrasing, style, tone, and improvisation. Basic concepts in jazz theory are introduced throughout the year and applied to improvisation skills. Students are required to participate in all school and community concerts.

### **Concert Chorus (1 Credit)**

**Offered: Full Year (Grades 9 – 12)**

This is a large, performance orientated chorus open to all FHS students. Development of a healthy singing voice in a group setting is the main goal of this course. Basic music theory and sight-singing are also required components. Opportunities include: caroling, festival participation, collaborating with other choirs and travel.

### **Concert Band (1 Credit)**

**Offered: Full Year (Grades 9 – 12)**

**Prerequisite: Previous enrolment in an ensemble and/or proficiency on a wind.**

The Concert Band performs a balanced repertoire of modern, classical, and traditional works for band. Emphasis is placed on developing fundamental instrumental techniques and the further development of musicianship skills in an ensemble setting. Students are required to participate in all school and community concerts.



**Chamber Choir (1 Credit)****Offered: Full Year (Grades 10 – 12)****Prerequisite: Audition Required**

This is an advanced vocal ensemble singing music of many styles and languages. A cappella music will be a large part of the group's repertoire. This course will further explore music theory fundamentals, sight singing and group singing techniques. In addition to quarterly concerts, the Chamber Choir is asked to perform at functions throughout the year. Opportunities include: caroling, festival participation, community concerts, collaborating with other choirs and travel.

**Honors Women's Choir (1 Credit)****Offered: Full Year (Grades 9 – 12)****Prerequisite: Audition Required**

The FHS Women's Choir is an auditioned choir for girls, grades 9-12. Emphasis on building a healthy singing voice through the study of repertoire arranged specifically for women. Sight singing and basic music theory are also studied throughout the year. Quarterly concerts are given. Opportunities include: festival participation, community concerts, collaborating with other choirs and travel.

**String Orchestra/Honors String Orchestra (1 Credit)****Offered: Full Year (Grades 9 – 12)****Prerequisite: Previous enrollment in an orchestra and proficiency on an orchestral instrument.**

String orchestra will develop individual skills on string instruments through the study of orchestral music literature of many eras and styles. Music will be performed in small groups and in a full orchestra setting in preparation for public concerts.

**Music Theory I (1 Credit) Prerequisite: Students who have musical experience through private lessons, enrollment in a music ensemble, or permission of the instructor**

Students will investigate music theory and composition concepts at the piano and through a provided workbook. Emphasis will also be placed on Ear Training. This class is for students looking to further their musicianship.

**Guitar I (1 Credit)**

Open to any student wishing to learn the fundamentals of guitar. Open chords, bar chords, power chords, scales, Blues progressions, fingerpicking, tablature and traditional music notation are addressed. Testing is done in both performance and written forms. *Students must provide their own instruments.*

**Guitar II (1 Credit)****Offered: Full Year (Grades 9 – 12)****Prerequisite: Guitar I or permission of instructor**

A continuation of the Guitar I curriculum, students will expand their chord and scale vocabulary, become more fluent in their ability to read traditional notation and employ more advanced guitar techniques. A minimum of two class presentations will be required. Testing is done in both performance and written forms.

***Students must provide their own instrument.*****History of Rock and Pop (1 Credit)****Offered: Full Year (Grades 9 – 12)**

This is a general music course offered to all students. The musical history of rock and popular music occurring in the 20<sup>th</sup> century and beyond will be surveyed during this course. Students will learn how to analyze and describe various musical groups, styles, and genres. The goal is to gain an understanding of the relationships between different types of music and musical groups.

**AP Music Theory (1 Credit) Prerequisite: Theory I or by permission of instructor.**

Want to dive deeper into the inner workings of music? If so, then you want to take AP Theory. This class will apply topics from Theory I to further explore music from different periods in history. Students will develop the skills needed to analyze and write classical music. Students will also develop sight singing skills.

#### **AP Music Theory(1 Credit)**

**Offered: Full Year (Grades 10 – 12)**

**Prerequisite: Music Theory I or by permission of instructor**

This course focuses on continuing development in musicianship, theory, musical materials, and procedures. Emphasis is placed on the ability to identify and work with the elements of music to compose musical passages, and analyze the compositional structure, style, and harmonic progressions of musical excerpts. Musicianship skills are strengthened through daily dictation and sight-singing practice. It is through strong musicianship skills and a foundation of the elements of music that students will be able to pursue various compositional techniques and analyze music both stylistically and historically. A focus on music from the Common Practice Period (1600-1900), and music of other stylistic periods will be studied.

#### **Percussion Ensemble (1 Credit)**

**Offered: Full Year (Grades 9-12)**

**Prerequisite: Previous enrolment in an ensemble and/or proficiency on a percussion instrument.**

The Percussion Ensemble at Fitch High School is open to all students with experience playing a percussion instrument. A focus is placed on the development of intermediate/advanced performance based skills to build and strengthen an independent musician. Musical comprehension will be developed through the study of music theory, historical/cultural contexts, performance practice, and evaluation techniques. Students will gain the knowledge and skills to perform, create and respond within a multitude of musical situations. Members of the Percussion Ensemble will perform with the Concert Band in concerts throughout the school in addition to the group's own performances.

## **Physical Education**

### ***REQUIRED PHYSICAL EDUCATION PROGRAM***

#### **Freshman Physical Education (.5 Credit)**

The class meets every other day for 1 semester. Fitness, various sports, and recreational activities are planned.

#### **Sophomore Physical Education (.5 Credit)**

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

### ***ELECTIVE PHYSICAL EDUCATION PROGRAM (designed for sophomores once they have completed Sophomore PE, juniors and seniors)***

#### **Advanced Physical Education (1 Credit)**

To sign up for this course a student must have met the following criteria:

- completed at least 1 credit of Physical Education
- maintained an "A-" average in Physical Education courses
- passed 3 of the 4 "Health Criteria" on the Connecticut Physical Fitness Mastery Test
- have a Physical Education Teacher's recommendation

This course focuses on fitness, sports, and other physical activities will be studied in greater depth.

**Weight Training (.5 Credit)**

This class meets every other day for one semester. Strength gain, muscular endurance gain, and flexibility gain are the main goals. Good program for any student interested in improving in these areas.

**Personal Fitness (.5 Credit)**

Students will be exposed to many different fitness programs. Students will learn about fitness through lecture and activities. By the end of the year, students will be able to design and implement their own fitness program.

**Honors Personal Fitness II (.5 Credit)****Basketball (.5 Credit)**

The class meets for one semester. The class is designed to fulfill the needs of beginners as well as skilled players. This is a very vigorous activity. Skill work will be done on a daily basis.

**Net Sports (.5 Credit)**

The class meets for one semester. Tennis will take place on the outdoor courts. The indoor racquet sports include: pickleball, badminton, table tennis, and possibly handball or racquetball.

**Physical Education Activities (.5 Credit)**

This class meets for one semester. Lifetime activities are stressed. Among the activities are: archery, pickleball, badminton, tennis, golf and bowling.

**Unified Physical Education (.5 Credit)**

In this class the student will assist the teacher in leading and adapting various physical education activities for students with special needs. Students will be assigned to work with one or two students with special needs to help them fully participate in the activities. You must be motivated, patient and have a desire to work with this population. **\*\*Teacher approval must be met before being able to sign up for this class.**

## Science

**CP Integrated Science (1 Credit)**

Integrated Science will be based off the Next Generation Science Standards (NGSS) for high school Earth and Space Science (HS-ESS-1 thru 3). This course will have a variety of learning experiences including discussion, extensive hands-on labs, and other projects the disciplinary core ideas (DCIs), Cross-cutting concepts (CCCs), and Science and Engineering Practices will be emphasized.

**Honors Integrated Science (1 Credit)**

Honors Integrated Science will be a challenging course, designed for those students whose records show high aptitude and performance in previous academic work in mathematics and science. The course will be based off the Next Generation Science Standards (NGSS) for high school, Earth and Space Science (HS-ESS-1 thru 3). This course will have a variety of learning experiences including discussion, extensive hands-on labs, and activities. Assignments that demonstrate the connections between the disciplinary core ideas (DCIs), Cross-cutting concepts (CCCs), and Science and Engineering Practices will be emphasized.

**CP Biology I (1 Credit)**

This course will cover material dealing with basic biological concepts as aligned to the next Generation Standards (NGSS) for high school Life Science (HS-LS 1 thru 4). Topics such as cell structure and function, basic genetics, change and diversity of living things. Laboratory exercises, research papers and some fieldwork are important aspects of this course. This course is intended for those students not planning on majoring in one of the sciences in college.

**Honors Biology I (1 Credit)**

This course is designed for those students whose records show high aptitude and performance in previous academic work in mathematics and science, and who have the recommendation of their present science teacher. Topics will include organic chemistry, cell structure and function, cellular reproduction, Mendelian genetics, and evolution and classification of living things. It is aligned to the next Generation Standards (NGSS) for high school Life Science (HS-LS 1 thru 4). Extensive laboratory exercises, research papers and fieldwork assignments are integral parts of this course. This course is intended for those students contemplating a major in science, engineering or health profession in college. Students enrolled in this course will satisfy the necessary prerequisites for IB courses.

**IB Biology 11 (1 Credit)****IB Biology 12 (1 Credit)**

This course is designed to provide a selection of in- depth biological concepts and principles. It intends to reinforce student familiarity with the process of formulating and testing hypotheses regarding underlying mechanisms of biological phenomena. The IB biology is organized around four central themes: structure and function, universality versus diversity, equilibrium within systems, and evolution. Course topics include: cells, chemistry of life, genetics, ecology, human health and physiology, nucleic acids and proteins, cell respiration and photosynthesis and human reproduction, classification, nerves and muscles, excretion and plant science. Additionally, students will study options to include evolution, ecology and conservation. At least twenty-five percent of a student's class time will be devoted to performing laboratory work that will cover a range of topics and skills, including a multidisciplinary group science project. Assessments will include practical exams, term projects, simulations as well as actual laboratory and field work. Students may take the AP exam at the end of this course, but additional AP material is the responsibility of the student.

**CP Marine Biology - TRCC-175 (1 Credit) (CCP Approved) Prerequisite: CP Biology I**

This course involves a survey of marine plants and animals and their natural habitats. Local organisms are emphasized. This course is intended for a student with previous knowledge of biological concepts as well as an interest in the marine environment. Laboratory work, research projects and Project Oceanology field trips are included in this course. If the students earn a 73% or higher in this course and fulfill the TRCC prerequisites for this course they they will be eligible to receive three college credits. Credits earned will fulfill general elective credits (non-science credit) at most colleges and universities (including UCONN).

**Honors Marine Biology - TRCC-175 (1 Credit) (CCP Approved) Prerequisite: CP Biology I or Honors Biology**

This course surveys marine organisms and the environmental factors which determine their distribution. Emphasis is on local species, their habitats and their behaviors. Fieldwork, laboratory exercises and research projects are integral parts of this course. This course is recommended to students with a high degree of interest in the marine sciences and who may be considering this field of study in college. If the students earn a 73% or higher in this course and fulfill the TRCC prerequisites for this course they they will be eligible to receive three college credits. Credits earned will fulfill general elective credits (non-science credit) at most colleges and universities (including UCONN):

**CP Chemistry Prerequisite: Algebra I (1 Credit)**

This course is intended for those students who wish to pursue a major in areas other than one of the sciences, engineering and health occupations, etc. in college. Students employ problem-solving techniques and critical thinking skills needed to apply chemical principles in decisions regarding scientific and technological issues. Frequent laboratory activities and projects are integral parts of each unit. This course is recommended to the student intending to go on to college.

**Honors Chemistry (1 Credit) Prerequisite: CP Algebra I and CP Biology I or Honors Biology I**

This course is designed for those students whose records show high aptitude and performance in previous academic work in mathematics and science, and who have the recommendation of their present or past science instructor. Honors chemistry is recommended for those students who intend on majoring in science, engineering, health

occupations or related fields at the college level. Topics will include the structure, properties, and behavior of matter from both a descriptive and quantitative viewpoint to a greater depth and a more rapid pace than in CP ChemCom. Laboratory exercises are an important part of this course. Students enrolled in this course will satisfy the necessary prerequisites for IB courses.

**AP Biology (1 Credit) Prerequisite: Successful completion of Honors Biology 1 and Honors Chemistry**

The AP Biology course is designed to be the equivalent of a two-semester college introductory biology course usually taken by biology majors during their first year. This course differs significantly from the usual first high school course in biology with respect to the textbook used, the range and depth of topics covered, the type of laboratory work done by students and the time and effort required of students. The AP labs completed are equivalent to those completed at the college level. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. **Students are expected to complete a summer assignment prior to beginning of school year.. Please see current instructor or your counselor for details.**

**AP Chemistry (1 Credit) Prerequisite: Successful completion of Honors Chemistry**

This course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students will attain a depth of understanding of the fundamentals and a competence in dealing with chemical problems. The course will contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. Major topics covered in this course include: Structure and states of matter, reaction types stoichiometry, equilibrium, kinetics, thermodynamics and descriptive chemistry. Approximately twenty percent of class time is dedicated to laboratory investigations. This AP course is designed to be taken after the completion of honors chemistry. **Students are expected to complete a summer assignment prior to beginning of school year.. Please see current instructor or your counselor for details.**

**IB Chemistry 11 (1 Credit) and IB Chemistry 12 (1 Credit) Prerequisite Honors Chemistry**

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. This course is designed to provide an in-depth understanding of chemical concepts and principles. A large portion of class time (over 25%) will be spent in designing and performing laboratory activities. IB chemistry topics include stoichiometry, equilibrium, thermodynamics, atomic and molecular structure, kinetics, periodic properties, nuclear chemistry and descriptive chemistry of the elements, including organic chemistry. In addition to those core subjects, students will study the following two optional topics: Environment Chemistry, and Drugs and Medicines. In addition to weekly laboratory investigations, a multidisciplinary group project will be designed and carried out. Assessments will include, but are not limited to, lab reports, problem sets, unit exams and research projects. Students may take the AP exam at the end of this course, but additional AP material is the responsibility of the student. **Students are expected to complete a summer assignment prior to beginning of school year. Please see current instructor or your counselor for details.**

**CP Physics (1 Credit) (CCP Approved) Prerequisite: CP Algebra I**

As an alternative to Honors Physics, this class introduces the universal laws of nature to students without requiring advanced mathematical skills. Conceptual Physics is similar to the Honors Physics curriculum except there are no difficult mathematical problems to solve. Students will learn about energy, forces, momentum, light, sound, electricity, and magnetism. Open to all college-bound juniors and seniors regardless of the intent to major in sciences. Many basic lab activities and hands-on demonstrations help the student to experience the laws of nature as they learn about them.

**AP (Honors) Physics I (1 Credit)**

This course focuses on the basic knowledge of the discipline of physics, including phenomenology, theories and techniques, concepts and general principles. Students use qualitative and quantitative reasoning along with experimental investigations to obtain answers to physical questions. Students will appreciate the physical world and be able to make connections between physics and other disciplines. This AP course is the honors physics level course.

**Students are expected to complete a summer assignment prior to beginning of school year. Please see current instructor or your counselor for details.**

**Honors Human Biology -TRCC-115.(1 Credit) *Prerequisite: Honors Biology and Honors Chemistry\* (\*CP chemistry may be considered with a strong recommendation from the chemistry teacher)***

An introductory presentation of human structure and function. It is a survey of body systems for students who want to be more knowledgeable about the processes of the human body. It is recommended for students who are interested in pursuing a career in the the medical field (nursing, physical therapy, pre-med). Students must have a strong background biology and a dedicated work ethic to succeed in this course. Labs are an integral part of this course. The lab procedures do not involve animal dissections. If the students earn a 73% average or higher in this course and fulfill the TRCC prerequisites for this course they will be eligible to take a TRCC- administered cumulative exam to earn four college credits. The student must pass this exam with a 60% or higher to receive college credit. Credits earned will fulfill general elective credits (non-science credit) at most colleges and universities (including UCONN).

**Honors Forensic Science (1 Credit) *Prerequisite: CP Biology and CP Chemistry***

Forensic science is an extensive hands-on laboratory course. It involves multiple disciplines and skills. Among the multiple lab techniques utilized, the student will be asked to perform such tasks as crime scene investigations that include fingerprint analysis, handwriting analysis, fiber analysis and the processing of the data. Students will be asked to present and defend their findings. Forensic science covers topics in biology, chemistry and physics. It will also integrate law, the judicial system and the government within discussions of case studies.

**Botany (.5 Credits) per semester *Prerequisite: CP Biology or Honors Biology***

This course details the basic concepts of plant biology. It focuses on plant characteristics, structure, unity and diversity, growth and reproduction. Students are acquainted with the origin, structure, development and functions of plant cells, tissues and organs. Current ideas in agriculture, horticulture, medicine, ecology, and conservation issues are discussed. Individual plant experiments as well as group laboratory investigations play a major part of the course experience. Laboratory work includes greenhouse and various field studies.

**CP Zoology (1 Credit) *Prerequisites: CP/Honors Biology 1***

This course is intended to introduce students to the animal kingdom. Emphasis will be places on classification of invertebrates and the vertebrate phyla including a comparative study of higher vertebrates to human anatomy. Laboratory exercises; including dissections, research papers and some fieldwork are important aspects of this course. This course is designed for students who do not plan on majoring in one of the science in college. *\*Please note:* Students will come in contact with preserved and fresh animals throughout the course, including but not limited to: clams, mussels, squid, crayfish, fish.

**Honors Zoology (1 Credit) *Prerequisites: Successful completion of CP/Honors Biology 1***

This course is designed for those students whose records show high aptitude and performance in previous science courses and who have the recommendation of their current science teacher. This course is intended to introduce students to the animal kingdom. Emphasis will be placed on classification of the invertebrates and vertebrate phyla including a comparative study of higher vertebrates to human anatomy. Laboratory exercises including dissections, research papers and fieldwork are all aspects of this course. Study of the human body systems, ecosystem dynamics and population ecology will also be an underlying theme in this course. This course will prepare students to take AP Biology and of Anatomy and Physiology. This course is intended for those students contemplating a major in science, engineering or health profession in college. *\*Please note:* Students will come in contact with preserved and fresh animals throughout the course, including but not limited to: clams, mussels, squid, crayfish, fish.

**Environmental Studies (.5 Credit)**

This course studies the topics of Wildlife Biology, Forestry, Aquatics and Soil Science. Basic topics in Ecology are integrated throughout the four units of study. Relationships to the local environment (Connecticut) will be emphasized.

Through this course, students will develop a better awareness and attitude toward environmental concerns, with the goal of making them better stewards of their own environment. Environmental Studies follows the objectives outlined by the Connecticut Envirothon Competition. Lecture and laboratory work are components of this program. While there are no prerequisites, successful completion of Biology 1 prior to taking Environmental Studies, is recommended.

**AP Environmental (1 Credit) Prerequisites: Successful completion of Biology, Chemistry and Algebra 1.**

This course is designed to be the equivalent of a one-semester, introductory college course in environmental science. Environmental science is interdisciplinary in nature; embracing a wide variety of topics from different areas of study. The goal of the AP Environmental interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. On top of regular classroom work, Lab and Field work will be essential components to the class. Students are also expected to take the AP Environmental Science exam in May.

**Students are expected to complete a summer assignment prior to beginning of school year. Please see current instructor or your counselor for details.**

**IB Physics II (1 Credit)**

This course is part of the IB Curriculum and prepares students for the IB Standard-Level Physics Exam. The class is open to juniors and seniors, including those who are not in the IB Program. The course focuses on inquiry-based learning and conceptual understanding, but strong mathematical abilities are necessary. Students should have completed Honors Physics before taking this class [exception: if a student will have satisfactorily completed the first year of IB Higher-Level Mathematics, he or she can enroll in IB Physics SL without first completing Honors Physics, but he or she must be prepared to take on some additional reading assignments over the prior summer and into the fall]. Students who complete IB Physics SL in their junior year may then take AP Physics 2 in their senior year. **Students are expected to complete a summer assignment prior to beginning of school year. Please see current instructor or your counselor for details.**

**IB Sports Exercise and Health Science 11 (1 Credit)**

**IB Sports Exercise and Health Science 12 (1 Credit)**

Interested in a future in Sports Medicine, Athletic Training, Biology, or Physical Therapy? This course incorporates the disciplines of anatomy and physiology, biomechanics, psychology and nutrition which are studied in the context of sport and exercise. Students will acquire the knowledge and understanding necessary to apply scientific principles and analyze human performance. Also, an integration of topics such as international sporting competition and ethical issues within sport are addressed. This is a 2-year course, and students will sit for exams to earn the IB Certificate in Sport, Exercise, and Health Science.

## Social Studies

**SPECIAL NOTE:**

A minimum of 3.0 credits in Social Studies is required for graduation. The State of Connecticut now requires a minimum of 1.0 credit in United States History and .5 credits in Civics. Students going on with postgraduate studies are strongly encouraged to take at least 4.0 credits in Social Studies.

**CP World History (1 Credit)**

The purpose of this course is to explore a variety of peoples, events, and movements in world history with a focus on inquiry-based learning and document-based questions. There will be a focus on analyzing cause/effect relationships within the context of history, including both Western and non-Western civilizations in our study. The course will be taught through a culturally responsive lens, in order to engage and affirm identities, experiences, and worldviews in the process of learning. Students will have opportunities to develop research, reading, writing, speaking, and listening skills.

By examining the simultaneous development and diffusion of other world cultures, students will gain a better understanding of the history of the world. This course has an integrated approach incorporating varied methodologies. This approach will reinforce the past and brings the present to life.

### **Honors World History (1 Credit)**

The purpose of this course is to explore a variety of peoples, events, and movements in world history with a focus on inquiry-based learning and document-based questions. There will be a focus on analyzing cause/effect relationships within the context of history, including both Western and non-Western civilizations in our study. The course will be taught through a culturally responsive lens, in order to engage and affirm identities, experiences, and worldviews in the process of learning. Students will have opportunities to develop research, reading, writing, speaking, and listening skills. Students will develop their ability to recognize, understand, manipulate and express knowledge of the basic social, political, economic and cultural aspects of World History. Throughout this class, students will take responsibility for their learning. Students are expected to take notes effectively through both written and oral coverage of materials. Students will also use technology to productively research, organize and present information in a variety of modalities. Lastly, students will expand their ability to analyze and integrate information, as well as cultivate the skill of critical thinking through a number of writings and classroom discussions.

### **Honors U. S. History (1 Credit) (Mandatory for AP/IB Prep)**

The purpose of this course is to explore people, events, and movements in the United States from the 1880s to the present with a focus on inquiry into the changes in society, economic development, and the emergence of the U.S. as a global power. An emphasis is placed on analyzing and evaluating a variety of documents, sources, and perspectives. There will be a focus on analyzing cause/effect relationships within the context of American history. The course will be taught through a culturally responsive lens, in order to engage and affirm identities, experiences, and worldviews in the process of learning. Students will have opportunities to develop research, reading, writing, speaking, and listening skills. Outside reading of documents, analytical writing and independent research are required. It is highly recommended that students are concurrently enrolled in Honors English 10. Students who intend to take the AP or IB program are required sign up for this course as it will serve as the beginning of the in depth study of United States History necessary for success in either program.

### **CP Civics (.5 Credit)**

The State of Connecticut requires a course in civic education for all students to pass that provides contemporary knowledge of the United States Constitution and how the rule of law and values of liberty and equality impact individual, local, state, and national decisions. Emphasis will be placed upon the rights and responsibilities of citizens, how local, state, and national political systems developed as well as how world affairs affect citizen lives and well-being. Students will examine the events and people as well as the political ideology that lay the foundation for contemporary American government.

### **AP United States History (1 Credit)**

This course is year-long program designed to provide the college preparatory student with the opportunity for comprehensive study of the political, social-economic and religious elements of American History. Outside reading of documents, analytical writing, and independent research are required. Students enrolled in this course are expected to take the A. P. Exam in United States History. It is highly recommended that students are enrolled concurrently in A.P. English 11.

### **IB History: The Americas – Grade 11 (1 Credit)**

Students will come to appreciate their own cultural heritage in the broad context of the experiences of the peoples of the Americas. Students are introduced to history as a discipline and to the historian's methods. This course of study obliges students to go beyond simple narrative through in-depth comparative analysis of people, places and events.



**IB History: Twentieth Century World History – Grade 12 (1 Credit) *Prerequisite:* IB History: The Americans** This course is a two year course starting in the 11th grade. Students enrolled in the IB Program will have the choice of studying the History of the Americas either on the standard level or the higher level beginning in grade 11. The scope of these courses will be focused on three topics: Causes, practices and effects of war, the rise and rule of single-party states, and the Cold War. The content of these courses will encompass United States History, Russian History, and Chinese History. At the conclusion of study, students will be prepared to meet the standard established by the International Baccalaureate Program.

## **SOCIAL STUDIES ELECTIVES**

The following courses may be chosen to fulfill the necessary requirements for graduation. Students are encouraged to select courses in areas of interest and ability.

### **CP World Geography (1 Credit)**

Oh, the places we'll go..." This is a comprehensive course in the relationships involving people, places, and environments. Interpret the present and plan for the future locally, nationally, and globally. If you are interested in how we shape our environment and it shapes us, this is the class for you!

### **CP Maritime History, Part 1 (.5 credit)**

Buried Treasure, Whales in the Arctic, and Wolfpacks in the Atlantic: This course explores the history of the United States from a maritime perspective. As a national story it uncovers the growth of America as a world power in maritime and naval history. As a local story, an emphasis will be placed on the contributions of small communities and their contributions to the American experience.

### **CP Maritime History, Part 2 (.5 credit)**

Maritime History has been divided into two parts, Part 1 will meet first semester and Part 2 will meet second semester. Buried Treasure, Whales in the Arctic, and Wolfpacks in the Atlantic: This course explores the history of the United States from a maritime perspective. As a national story it uncovers the growth of America as a world power in maritime and naval history. As a local story, an emphasis will be placed on the contributions of small communities and their contributions to the American experience. Students will be given a basic understanding of sailing vessel types and seamanship skills. Topics of study will include whaling, pirates, disasters at sea, and the history of submarines.

### **CP Sociology, Part 1 (.5 Credit) (Open to Juniors and Seniors)**

How do people relate to each other and to society? Why do people do what they do, and how do those actions affect others? This course focuses on looking at people and their ways of life, social trends, cultural changes, human development, social institutions, and collective behavior. Sociology I is an introduction to the subject with a broad overview of Sociological practices. Sociology II will focus on using the information learned in Sociology I in practical ways, with research and projects with real world application. Sociology I is a prerequisite for Sociology II.

### **CP Sociology, Part 2 (.5 Credit) *Prerequisite:* Sociology Part 1**

Part 2 focuses on the individual as a member of society. Topics will include roles, socialization, mental illness, deviant behavior, social class structure, institutions, and social change. Students will be expected to do a great deal of outside reading and research. Individual and group presentations are a major component of this course.

### **CP Introduction to Psychology (.5 credit)**

This course will provide students with an introduction to the field of psychology. Students will learn about different psychological concepts, theories, and methods that give us a greater understanding of the human mind and behavior. Students will be expected to read, write about, and analyze different theories, pioneers in the field of psychology, and case studies.

### **AP Psychology (1 Credit )**

AP Psychology will introduce students to the systematic and scientific study of behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields of psychology. Additionally, students will be exposed to the ethics and methods psychologists use in their science and practices.

**CP Introduction to Economics (Open to juniors and seniors) (.5 credit)**

This course will provide students with an introduction to basic economic principles and current economic issues with a focus on the American economy. Students will learn about different aspects of competition, finance, and interrelated global economic issues. Students will be expected to read, write about, and analyze different theories, current events that pertain to finance, and economic theories.

**AP European History (1 Credit) (SENIORS ONLY)**

This course examines European History from the Renaissance to the present, with an emphasis on the political, economic, social, and cultural developments that have shaped Europe, the United States, and the world. Outside reading and writing assignments are a regular and significant part of this course. Supplements may include aspects of literature, art, music, and film related to the subject. As a full year course, this class meets every day in the first semester and every other day in the second semester. Students enrolled in this course are expected to take the A.P. exam in the spring

**UCONN ECE Maritime Studies (1 Credit)**

This course is an interdisciplinary course designed for students who are ready for the demands and rigor of a college course in their senior year. The curriculum will be a thematic approach to exploration of the sea and the literature that has arisen from people's relationship to it. Throughout history, the sea has served as a highway, a source of food, and an arena for warfare and a stage for discovery. More recently, a dumping ground for our planet's garbage and economic disaster debris. This course will explore Maritime History with attention to international linkages afforded by the ocean. Students will consider the literature that resulted as humans interacted with the ocean along with art, music, photography and film. The course is designed as a general education credit for UCONN, but also an Introduction to Maritime Studies offered at Avery Point Campus of UCONN. Through reading, discussion, seminars, field trips and lectures, we will explore the literary and historical topics from a variety of perspectives. These will include ethnic, gender, historical, religious, political, intellectual and economic.

**AP Government**

AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments.

**IB Psychology 2**

IB psychology examines the interaction of biological, cognitive and sociocultural influences on human behavior. Understanding how psychological knowledge is generated, developed, and applied enabling students to achieve a greater understanding of themselves and appreciate the diversity of human behavior.

**US History (1 credit)**

Anyone interested in studying the complexities of Thomas Jefferson, maybe the importance of The Charter Oak Tree, or the treachery of Benedict Arnold? If you are, this is the class for you. This sophomore level advanced course traces the major social, political, cultural, and economic developments of United States History from the exploration of the New World to the Origins of the Civil War. The course of study is constructed to provide sophomore students with the experience of college-level instruction, both in methods and materials to prepare students for AP U.S. History.

**Current Events (.5 credits)**

The purpose of this half credit course is to provide a forum for the open discussion of current events. Particular attention will be paid to events in U.S. foreign policy, economics, defense, and national politics. Current social issues having an impact on contemporary society will also be discussed. In a time of continual change, confusion and distrust, it is important and necessary for young adults to be able to voice their concerns. Relevant current issues provide opportunities for addressing multiple standards through focused inquiry, inviting students to generate and research compelling questions. It is important to note that the events and issues involved, i.e. economic, social and political, will be taught simultaneously as this course will be dependent on the current conditions in the news.

## **Special Education**

### **English 9-10 (1 Credit)**

Specialized English is designed to meet the needs of students who, due to cognitive impairments, are unable to perform in regular English curriculum without appropriate supports (Resource, SRBI and modifications/accommodations). This class is designed to provide overall growth of the students' core English skills by helping them to master their IEP goals and objectives in reading and writing. Instruction focuses on appropriate grade level content and on everyday literacy life skills that will allow the student to engage in reading and writing outside the classroom

### **English 11-12 (1 Credit)**

Specialized English is designed to meet the needs of students, due to cognitive impairments, who are unable to perform in regular English curriculum without appropriate supports (Resource, SRBI and modifications/accommodations). This class is designed to provide overall growth of the students' core English skills by helping them to master their IEP goals and objectives in reading and writing. Instruction focuses on appropriate grade level content and on everyday literacy life skills that will allow the student to engage in reading and writing outside the classroom.

### **Math 9-10 (1 Credit)**

Specialized Math is designed to meet the needs of students, due to cognitive impairments who are unable to perform in regular math curriculum without appropriate supports (Resource, SRBI, and modifications/accommodations). This math class is designed as an intensive math support system to continue the overall growth of the students' core math skills.

### **Math 11-12 (1 Credit)**

Specialized Math is designed to meet the needs of students, due to cognitive impairments who are unable to perform in regular math curriculum without appropriate supports (Resource, SRBI, and modifications/accommodations). This math class is designed as an intensive math support system to continue the overall growth of the students' core math skills.

### **US History 9-10**

This course uses adaptive curriculum for World History, Civics and US History to meet the learning needs of adolescents with cognitive impairments. The content literacy skills and strategies presented and practiced in the lessons will allow students a more meaningful literacy based experience. The Reading Essentials in Social Studies supports the national standards: culture; time, continuity and change; people, places, and environments; individual development and identity; individuals, groups and institutions; power, authority, and governance; production, distribution, and consumption; global connections; civic ideals and practice.

### **Government 11-12**

### **Science 9-10**

### **Science 11-12**

# Technology Education

Technology Education courses center around the evolution of technology and its systems, resources, limits, impacts, products, and problems. It explores technology from historical, cultural, and environmental perspectives; predicts future trends and employment opportunities; and uses the tools of technology (for example: lasers, robots, audio, video, fiber optics, computer aided drafting, state-of-the-art computer software, and testing equipment) to solve problems relevant to everyday living.

The Technology Education Department is involved in the College Career Pathways (CCP) with Three Rivers Community College. See the details of the CCP program as they are described on page 5 to see how students can earn college credits while enrolled in courses at Fitch High School.

## **Animation (1 Credit)**

Animation is one of the largest, fastest growing media and career areas in our world today. Animation is used in every field from advertising and entertainment to medicine. The animation course allows a much larger cross section of our students a course that will support a large diversity of career options. This course provides a broader base of multimedia fundamentals and focus on engineering, principles of design, and character modeling. Animation will better prepare our students for postsecondary success, and will provide undecided students with informed career options. This course is a primarily technology based program. It is not designed to teach computer gaming, graphics, cartooning or an art based approach.

## **Introduction to Architectural CAD (1 Credit) *Prerequisite: Communication Systems, Introduction to Construction Technology***

This course is designed to help students explore the related fields of architecture, and to assist them in becoming educated consumers of building products and a house. Students will use basic drafting techniques, building codes, CAD software, and modeling to design a residential structure. Architectural CAD is a hands-on learning experience that focuses on technological literacy, academic development, personal development, and career awareness. Introduction to Engineering Design is a suggested prerequisite for all Architectural courses.

## **Mechanical CAD (1 Credit)**

In this course, the student will be guided through instruction, demonstration, hands-on activities that focus on problem solving and mechanical design. The student will be using Autodesk Inventor and a CAD workstation to visualize design concepts and create a final detailed presentation of each mechanical problem they solve. Some of the best design solutions will be CNC milled as time allows.

## **Architectural CAD 2 (1 Credit) *Prerequisite: Arch CAD I***

Introduction to Engineering Design is a suggested prerequisite for all Architectural courses. This course provides resources and instruction for an intermediate course in architectural design. The course reviews design principles, creating sketches using pencil and paper and the CAD computer interface. The students will then take the basic designs created in the Architecture 1 class and work using AutoCAD Architecture and Revit Architecture to design and install site, mechanical, interior, and topographical plans. These plans will then be used to instruct the students in the basic principles of estimating.

## **Graphic Communications (1 Credit)**

Students will learn the basic principles and elements of design and the skills used in the print and design industry by taking a project idea through concept layout and composition. Students will create eye-catching brochures, business cards, newsletters, advertisements and many other forms of design media. Students will use computer desktop

publishing software, digital photography, and bindery. Laboratory work and classroom instruction help the students explore the many careers in the print and design industry.

#### **Video Production I (1 Credit)**

The Video Production course will introduce students to a variety of concepts and projects that reflect the rapid development of the television production industry. The course provides a detailed understanding of video equipment operation, a working knowledge of media/video production techniques, terminology, directing experience, and an overview of professional television studio operation. The course is designed with a significant hands-on component that reinforces learning and supports the school community through their involvement in the FHS daily announcements. Individual and group based projects will aid in students' creative potential and reflects their technical abilities.

#### **Video Production II (1 Credit) *Prerequisite: Video I***

This course is a continuation of Video Production I and is designed as a directed workshop to allow students the opportunity to practice their specialization in a production environment. A heavy emphasis will be placed on individualized projects that reflect the specific interests of each student in the television production field. Students will be required to plan, produce and direct video programs that demonstrate a mastery of composition and production skills. Students will also be required to produce specialized segments designed to air on the FHS Daily Announcements. Students wishing to pursue possible careers in the television industry should enroll in Video Production II.

#### **Manufacturing Technology I (1 Credit) *Prerequisite: Mechanical CAD recommended. Strong fractional measurement is helpful.***

The Manufacturing technology course introduces students to the principles of mass production, estimating, careers in manufacturing and business setup. Manufacturing Technology provides students an opportunity to manipulate raw materials(usually wood) into a finished product. Hands-on activities with power tools are used to support academic success as students navigate managed activities to convert an idea into a product that is produced for profit or personal enjoyment. A focus of this course is student safety therefore a safety test will be administered to all students. All students must pass with a minimum of 80%. Some retakes are possible.

#### **Manufacturing Technology II (1 Credit) *Prerequisite: Manufacturing Technology I with "C" or higher***

Manufacturing Technology 2 provides students an expanded opportunity to manipulate raw materials(usually wood) into a finished product. Students will be independently planning and processing steps from design to the final manufactured product. Hands-on activities with power tools are used to support academic success as students navigate managed activities to convert an idea into a product for profit or personal enjoyment.

#### **PLTW Civil Engineering (1 Credit)**

Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architecture design software. CEA is one of the specialized courses in TCD's Project Lead The Way Pathway to Engineering course sequence. Students who have successfully completed the IED and POE foundation courses at TCD or their high school can easily transition to this course. To receive maximum recognition or credit from PLTW-affiliated colleges and universities, students should successfully complete the two foundation courses, one specialized course, and the capstone course. Some affiliates offer recognition or credit on a course by course basis

#### **PLTW Introduction to Engineering (1 credit)**

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work.

#### **PLTW Principles of Engineering (1 credit)**

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

## World Languages

The World Language Department encourages all students to study another language in order to develop marketable skills in an increasingly global economy, to enrich their academic preparation, to foster appreciation of cultural differences and to hone critical thinking and problem-solving abilities.

In order for students to meet college entrance requirements, the World Language Department recommends three or more years of study in a single world language. Most colleges and universities look for applicants to have completed three or four consecutive high school years of the target language. Many institutions offer waiver exams for their world language credit requirements to those students having reached an intermediate level of proficiency in high school programs.

Language classes will focus on student-centered activities. Cooperative learning and group activities will take place, as well as online and audio-visual activities. All courses are designed to align with National Standards for World Language learning whereby students will communicate in a language other than English, learn the cultures of the target language, make connections with other areas of study, compare elements of the target language with English and take advantage of opportunities to use the language in the community-at-large. In college preparatory programs, students should expect to complete daily assignments and participate actively in each class session.

### **CP French 1 (1 Credit)**

This course provides for extensive speaking and listening practice. The student is introduced to basic sentence structure and elementary grammar patterns within the framework of thematic units concerning everyday life. The student will begin to study the relationships between cultures. The use of technology and audio-visual material will provide further skill development. This course will stress student performance and the acquisition of key foundations in the language.

*Students who earned C-" or better in French 1 in middle school or out-of-district should go to French 2 or Honors French 2.*

Students wishing to go to Honors 2 should ask for a teacher recommendation.

### **CP French 2 (1 Credit)**

This course builds on the communication tasks introduced in French 1. Course material presents students with opportunities to develop their listening, reading, writing, and speaking skills. Writing and speaking style is enriched through practical application of vocabulary and grammar. The use of media sources, technology and small hands-on projects throughout the year help students to see French in action.

A grade of "C-" or better in French 1 is recommended for enrollment in this course.

### **CP French 3 (1 Credit)**

Active communication skills in listening, reading, writing and speaking are stressed at this level of study. A good foundation in French 1 and 2 is essential for the study of the more advanced language applications and grammatical structures in this course. This course requires serious effort on the part of students to substantially enrich their vocabulary through authentic readings, audio and video activities, dialogues and key topics of daily life.

A grade of "C-" or better in French 2 is recommended for this course.

#### **CP French 4 (1 Credit)**

French 4 continues to explore key topics of daily life, picking up where CP French 3 leaves off. This course reviews more complex sentence structures in everyday conversation and in practical writing activities. Various short readings and documents are studied. Emphasis is placed on writing, role plays, presentations and broadened cultural understanding through research projects and creative projects throughout the year. Current events are highlighted through access to various online resources.

A grade of "C-" or better in French 3 is highly recommended for enrollment in this course.

#### **Honors French 2 (1 Credit)**

This course is designed for students who have demonstrated superior motivation, achievement and skill level in a French 1 course. Emphasis is placed on oral proficiency as well as an in-depth study and application of language structures and grammar in various types of writing tasks. The pace is faster than that of CP French 2, incorporating enrichment activities such as projects and active communication requirements. Additional vocabulary is learned through authentic reading selections and audio-visual exercises. Communication about present and past events are a focus. Honors French 2 prepares students with tools and practice in the four modes of communication required for a smooth transition to Honors French 3.

A grade of "C-" or better in French 1 and teacher approval are recommended for enrollment in this course.

#### **Honors French 3 (1 Credit)**

This course addresses language acquisition needs and goals of students who have shown superior motivation, achievement and skill level in Honors French 2. The focus is on oral and written practice, integrating higher level vocabulary and advanced grammar structures while developing more natural syntax. Listening and reading comprehension will be strengthened through paired and group activities, audio-visual methods and projects. Students are expected to use the target language daily in class. Communication centered on future, hypothetical and subjunctive concepts are emphasized. Honors French 3 permits students to reach the level of proficiency in the four modes of communication required for a smooth transition to Honors French 4 and is a prerequisite for IB French 11.

A grade of "C-" or better in Honors French 2 and teacher approval are highly recommended for this course.

#### **Honors French 4 (1 Credit)**

This course is targeted to students with superior motivation, achievement and communication skills in French. Emphasis is on active and spontaneous discussions of current events and core cultural topics in the French-speaking world. Literature, texts and videos are studied and analyzed. Oral presentations and intensive writing practice are part of the course. Semester projects allow students to explore particular areas of personal interest related to the target language and culture and to make connections with their own culture. Students are expected to demonstrate a measurable degree of proficiency and accuracy during each class session, using grammatical elements and language adapted to various situations. Current events are highlighted through access to various online resources.

A grade of "C-" or better in French 3 Honors and teacher approval are very highly recommended for enrollment.

#### **IB French Language B 11 (1 Credit)**

#### **IB French Language B 12 (1 Credit)**

The study of a world language is integral to the international focus of the IB Diploma Program. This IB Language B course is based on the acquisition of measurable performance skills with an emphasis on speaking and writing in the target language. Productive, receptive and interactive skills are the focus of the Language B oral interview. This is a second language acquisition course. The overall objective is to learn, appreciate and effectively interact in a culture different from the student's own. The course content will align with the thematic requirements of the IB guide: Identities, Experiences, Human Ingenuity, Social Organization, Sharing the Planet, all viewed within a global context.

The essence of the course is to provide a range of linguistic experiences which will assist the student in developing the capacity to communicate in a language other than English. The study of some brief literary and other texts, online

resources, authentic audio-visual materials including films and daily interactive tasks play an important part of this process. This course is conducted entirely in French. End-of-course oral and written assessments take place in Year Two.

A grade of "C+" or better in Honors French 3 and teacher approval are very highly recommended for enrollment.

### **CP Spanish 1 (1 Credit)**

This course introduces students to listening, reading, writing and speaking in Spanish. Students learn vocabulary and grammar within the context of everyday settings at home and at school. The relevance of Spanish and Latin American cultures and their relationship to language learning is stressed throughout the course. Students internalize and apply useful words and phrases through reading and participating in skits, presentations, online practice and other interactive class activities. This course will emphasize student performance and the acquisition of key foundations in the language.

*Students who earned C-" or better in Spanish 1 in middle school or out-of-district should go to Spanish 2 or Honors Spanish 2 .*

Students wishing to go to Honors 2 should ask for a teacher recommendation.

### **CP Spanish 2 (1 Credit)**

The course builds on the communication tasks introduced in Spanish 1. Oral as well as written proficiency are emphasized in this course. Students learn to use more challenging vocabulary and language structures. Students learn how to describe events in the past through speaking and writing. They also develop an understanding of past events through reading and listening. Vocabulary focuses on everyday themes such as home, school, shopping, and other general situations. Spanish and Latin-American culture is studied throughout the course. Assignments reinforce class lessons and facilitate practical application of useful words and phrases that form the foundations of meaningful communication. The use of media sources, technology and small hands-on projects throughout the year help students to see Spanish in action.

A grade of "C-" or better in Spanish 1 is recommended for this course.

### **CP Spanish 3 (1 Credit)**

Proficiency in listening, reading, speaking and writing is stressed in this course. Higher-level grammar structures as the perfect tenses are focused on and applied. Extensive vocabulary building is also stressed in authentic readings, audio and video activities, dialogues and key topics of daily life. The skills learned in Spanish 1 and Spanish 2 form an essential foundation for this course. Through readings, audio and video activities as well as discussions, the cultures of all Spanish speaking countries are studied.

A grade of "C-" or better in Spanish 2 is recommended in order to enroll in this course.

### **CP Spanish 4 (1 Credit)**

Emphasis is on proficiency in listening, reading, speaking and writing. Students communicate in Spanish via group discussions and writing assignments on a regular basis. Students build upon vocabulary and grammar usage through authentic sources such as video, songs, and printed media. The cultures of Spain and Latin-American countries are studied. Projects asking students to highlight their acquired language skills while exploring aspects of the target cultures are a part of this course. Current events are highlighted through access to various online resources.

A grade of "C-" or better in Spanish 3 is recommended for enrollment in this course.

### **Honors Spanish 2 (1 Credit)**

This course is designed for students who have demonstrated superior motivation, achievement and skill level in a Spanish 1 course. Emphasis is placed on oral proficiency as well as an in-depth study and application of language structures and grammar in various types of writing tasks. The pace is faster than that of CP Spanish 2, incorporating enrichment activities such as projects and active communication requirements. Additional vocabulary is learned through



authentic reading selections and audio-visual exercises. Communication about present and past events are a focus. Honors Spanish 2 prepares students with tools and practice in the four modes of communication required for a smooth transition to Honors Spanish 3.

A grade of "C-" or better in Spanish 1 and teacher approval to enroll in this course are strongly recommended.

### **Honors Spanish 3 (1 Credit)**

This course addresses language acquisition needs and goals of students who have shown superior motivation, achievement and communication skills in Honors Spanish 2. Emphasis is on practicing oral and written Spanish, integrating higher level vocabulary and advanced grammar structures while developing more natural syntax. Students use Spanish each day in spontaneous communications with teacher and peers as well as in prepared conversations, oral reports, and paired activities. Communication centered on future, hypothetical and subjunctive concepts is emphasized.

Honors Spanish 3 permits students to reach the level of proficiency in the four modes of communication required for a smooth transition to Honors Spanish 4 and is a prerequisite for IB Spanish 11.

A grade of "C-" or better in Spanish 2 Honors and teacher approval are strongly recommended for this course.

### **Honors Spanish 4 (1 Credit)**

This course is targeted to students with superior motivation, achievement and communication skills in Spanish. Emphasis is on active and spontaneous discussions of current events and core cultural topics in the Spanish-speaking world. Literature, texts and videos are studied and analyzed. Oral presentations and intensive writing practice are part of the course. Semester projects allow students to explore particular areas of personal interest related to the target language and culture and to make connections with their own culture. Students are expected to demonstrate a measurable degree of proficiency and accuracy during each class session, using grammatical elements and language adapted to various situations.

A grade of "C-" or better in Spanish 3 Honors and teacher approval are recommended for enrollment in this course.

### **IB Spanish Language B 11 (1 Credit)**

#### **IB Spanish Language B 12 (1 Credit)**

The study of a world language is integral to the international focus of the IB Diploma Program. This IB Language B course is based on the acquisition of measurable performance skills with an emphasis on speaking and writing in the target language. Productive, receptive and interactive skills are the focus of the Language B oral interview. This is a second language acquisition course. The overall objective is to learn, appreciate and effectively interact in a culture different from the student's own. The course content will align with the thematic requirements of the IB guide: Identities, Experiences, Human Ingenuity, Social Organization, Sharing the Planet, all viewed within a global context.

The essence of the course is to provide a range of linguistic experiences which will assist the student in developing the capacity to communicate in a language other than English. The study of some brief literary and other texts, online resources, authentic audio-visual materials including films and daily interactive tasks play an important part of this process. This course is conducted entirely in Spanish. End-of-course oral and written assessments take place in Year Two.

A grade of "C+" or better in Spanish 3 Honors and teacher approval are very highly recommended for enrollment.

### **IB Spanish ab Initio (Year 1 and Year 2)**

The study of a world language is integral to the international focus of the IB Diploma program. An IB language course is based on the acquisition of measurable performance skills with an emphasis on speaking and writing in the target language. The ab-initio course provides a range of linguistic experiences which assist the student in developing the capacity to communicate in a language other than English, through the study and use of written and spoken material. The three core themes of individuals/society, leisure/work and urban/rural environment provide students with opportunities to practice and explore Spanish as well as to develop intercultural understanding.

The ab initio course is designed for students *with little to no experience* in the Spanish language - an initiation to a new language and culture. The most important placement consideration is that the course should be a challenging educational experience. Assessments at the end of Year Two include an internal oral portion, reading comprehension section and various writing tasks to assess students' full range of abilities.

### **CP Latin I (1 Credit)**

Latin I exposes students to the language, culture and history of the Romans. An introduction to the language through a variety of texts emphasizes comprehension of the Latin language through reading. As a result, students create an understanding of the social and political history of the Romans, especially during the first century AD. The result of the student's study of Latin is improved knowledge of both English vocabulary and grammar, an expanded understanding of the relationship of the ancient world to his or her own, and appreciation of other foreign languages and culture.

### **CP Latin II (1 Credit)**

Students in Latin II further expand their knowledge of the language and culture of the Romans. In this course, students are introduced to the diversity of cultures that influence and became a part of the Roman Empire. In addition, a general survey of the major figures of Roman literature is presented and students begin to read both adapted and original passages from Roman authors. Students will complete a variety of projects and longer assignments in the course.

### **IB Classical Studies in Latin (1 Credit)**

IB Classical Studies in Latin is for students who have completed two years of Latin language study at the high-school level. Students will engage in reading and translating texts from Latin, and will learn to speak and write in Latin. This course is ideal for a student who has an interest in continuing his or her Latin studies, and/or who wishes to use Latin as his or her language of choice while completing the full IB Diploma or participating in the IB Career Certificate Programme.

### **American Sign Language I (1 Credit)**

In ASL 1 students will be introduced to the basics of ASL: the hand shapes that comprise the numerical and linguistic system, grammar and syntax, vocabulary, fingerspelling, numbers, visual-manual communication, and Deaf culture. "Deafness", Deaf culture and history will be introduced with an emphasis on making comparisons and connections to one's own culture. Topics revolve around sharing information about the environment and themselves. Grammar is introduced in context, with an emphasis on developing question and answer skills. Students will learn conversational strategies which help maintain a conversation in ASL through interactive activities which allow them to rehearse what they've learned. Topics include: introducing oneself, exchanging personal information, talking about where you live, talking about family, and talking about everyday activities. Class participation required and voicing in English limited, so that visual and manual skill development can be maximized. Students required to bring chrome book to class for use daily.

### **CP American Sign Language II (1 Credit) *Prerequisite: successful completion of ASL I (C or better)***

In this second course, students will continue to develop their receptive (viewing/visual) and expressive (manual) communication skills with ASL. Emphasis is on further development of receptive and expressive vocabulary, syntax and grammar and fingerspelling skills, while continuing to explore American Deaf history and culture. Course activities and instruction are primarily in ASL, to continue to foster and enhance visual & manual learning and skill development. Students will have an introduction to classifiers and ASL idioms and will be challenged to expand their use of non-manual markers (facial expression & gesture). Students required to bring chrome book to class for use daily.

### **American Sign Language III (1 Credit) *Prerequisite: successful completion of ASL II with a C or better***

In this third course, students will further deepen their skills and understanding of ASL and Deaf culture. Students will continue to develop receptive and expressive fingerspelling, vocabulary, syntax and grammar skills, and will expand their use and understanding of ASL classifiers and idioms. American Deaf culture and history will continue to be expanded upon, and students will delve into more modern/contemporary issues relevant to ASL, Deaf culture and

“Deafness.” Course activities and instruction are primarily in ASL and students are required to bring chrome book to class for daily use.

#### **Spanish for Native Speakers (1 Credit)**

Designed for heritage learners of Spanish, this course can accommodate students from a wide range of backgrounds and nationalities from those who are minimally functional (can comprehend read and write Spanish but need much support) to those who are more proficient and/or literate in Spanish. The recommended entrance requirement for the Spanish for Native Speakers I is the Intermediate-Mid level of proficiency in listening comprehension on the ACTFL scale. It is not necessary that students write at the Intermediate level prior to entering the course. This course focuses on the development of communicative competence in reading, writing, speaking and listening and viewing, as well as on understanding Hispanic cultures and issues of identity of heritage speakers of Spanish in the United States. Students will maintain and further develop Spanish language skills in listening, speaking, reading and writing. Students will also develop an awareness and understanding of Hispanic cultures, including language variation, customs, geography, history, and current events while focusing on the diversity and richness of their own Spanish/Hispanic culture. During this course, 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, reflect on language variation, and critically view and evaluate media resources and websites. Students will be able to understand material presented on a variety of topics related to contemporary events and issues in Hispanic communities.

#### **More Information On:**

**Advanced Placement**

**International Baccalaureate**

**UConn Early College Experience**

**Three Rivers College Career Pathways**

**Project Lead the Way**

# Advanced Placement

## **What is the Advanced Placement Program?**

The Advanced Placement Program® (AP®) is a challenging academic program designed to provide motivated high school students with college-level academic courses. Established in 1955 by the College Board, the AP Program is a cooperative educational endeavor between secondary schools and colleges and universities. High school students who complete AP courses demonstrate their mastery of subject material by earning qualifying grades on AP Examinations. AP is considered a standard for academic excellence in the United States, where nearly 60 percent of secondary schools participate in the program. AP courses with qualifying exam grades are accepted for credit, advanced placement, or both, by most American colleges and universities. In addition, AP courses and exam grades are used in the admissions process in more than 400 universities outside the United States.

## **Who creates the AP Examinations, and how are the exams graded?**

AP Examinations are created by a committee of experienced AP secondary school teachers and university professors specializing in each of the disciplines for which an examination is offered. The multiple choice portion of AP Exams is scored by computer. The free-response sections of AP Exams are scored by AP teachers and university professors in a weeklong June scoring session. Detailed scoring rubrics are established for each examination by Chief Faculty Consultants for each discipline, who oversee the scoring of the free-response questions. Great care is taken by the Chief Faculty Consultants to ensure accuracy and consistency in scoring to result in a fair assessment of student free-response performances. Total composite scores for the combined multiple-choice and free-response portions of the exams are converted into AP grades of 1 (no recommendation) to 5 (extremely well qualified), which are released in mid-July to the students and the colleges and universities of their choice.

## **How do colleges and universities recognize AP courses?**

Approximately 3,000 North American universities recognize AP courses and examinations. Students presenting qualifying grades on AP Exams may earn anywhere from 3 to 6 credits (for a single course) to one year of college credit. As universities in the United States and abroad differ regarding the exact nature of their acceptance policies, AP students are advised to inquire directly at the universities concerning their respective policies for specific AP Examinations.

AP courses and qualifying grades are also used as acceptance and admissions criteria by an increasing number of universities in identifying high performing and highly motivated students. By taking AP courses, students demonstrate their mastery of a subject and their ability to work at the academic level required in higher education.

## **Why Do AP?**

*Extensive Recognition* – AP is recognized by approximately 3,000 American colleges and universities, which grant credit, advanced placement, or both for AP courses and exam grades. More than 400 additional universities in 27 countries also recognize AP courses and exam grades in the admissions process. Colleges and universities recognize the value of AP for preparing students to succeed in rigorous university courses.

*Affordability and Flexibility* – AP is affordable, the only fee being the \$82 per examination, \$22 of which may be waived in cases of economic need. AP offers flexibility for schools, which can offer one or many AP courses, and different AP courses from year to year. AP also offers flexibility for teachers, who have latitude to determine their own curricula.

*Access and Equity* – AP promotes open access to students who may excel in only one or two academic disciplines. The AP Program is designed to give all students an opportunity to challenge themselves with a rigorous academic experience.

*Exam Reliability and University Standards* – AP emphasizes statistical exam reliability to ensure fairness in scoring, along with results that can be trusted by students, schools, and universities. Through regular surveys and comparability studies, the AP Program ensures that courses and examinations reflect actual university-level standards.

#### **Classes Currently Offered at FITCH for AP:**

<b>AP Biology</b>	<b>AP UConn English 11</b>	<b>AP Psychology</b>
<b>AP Chemistry</b>	<b>AP UConn English 12</b>	<b>AP Probability and Statistics</b>
<b>AP Environmental Science</b>	<b>AP European History</b>	<b>AP Computer Science</b>
<b>AP Physics 1</b>	<b>AP US History</b>	<b>AP Calculus AB</b>
<b>AP Physics 2</b>	<b>AP United States Government</b>	<b>AP Calculus BC</b>

## **International Baccalaureate**

#### **What is the International Baccalaureate® Program?**

The International Baccalaureate® Diploma Program (IB®) is a rigorous pre-university program leading to assessments in six subject areas. Established in 1968, the IB offers a challenging curriculum noted for its depth and its international perspective. The two-year IB Diploma provides a coherent and demanding educational experience across the full curriculum. Beyond completing college-level courses and examinations, IB students are also required to engage in community service, individual research, and an inquiry into the nature of knowledge.

The IB Diploma is accepted as an admissions credential at universities in 102 countries. In addition, high scores on IB exams often entitle students to credit or placement at university. IB courses and exams are offered at 1,217 schools in 113 countries.

#### **Who creates the International Baccalaureate examinations, and how are the exams graded?**

Generally speaking, the final IB grade of 1–7 consists of two major elements. Between 20 and 50 percent of the grade is based on internal assessment, classroom work done during the IB course and graded by IB teachers against specific published criteria. The remaining 50–80 percent of the grade is based on external assessments, which are developed by an international board of chief examiners, with input from IB teachers from around the world.

These criterion-based assessments are graded by an international body of 3,500 trained IB examiners, consisting of university professors and master secondary school teachers. The work of the examiners is moderated by an examining board that is also responsible for ensuring that scoring is consistent across subjects and across the world. A final award meeting takes place in each subject at IB's Curriculum and Assessment Center in Wales, and results reissued each year in early July.

#### **How do colleges and universities recognize International Baccalaureate courses and the IB Diploma?**

IB has largely succeeded in its goal to be a universally recognized admissions credential. Specific agreements are in place with ministries of education and universities in 102 countries that recognize the IB Diploma as a valid means of earning entry to postsecondary study.

The IB Diploma is increasingly being viewed as a strong indicator of academic promise and achievement. IB students often have an advantage in the admissions process at selective universities. In addition, IB courses and exams are

recognized for the purpose of advanced credit and/or placement at over 900 North American colleges and universities. In fact, over 150 postsecondary institutions now grant a full year of credit to students who have earned the IB Diploma.

### **Why Do IB?**

*A High Level of Recognition* – Universities in 102 countries welcome IB diplomas as well as individual courses for admissions, placement, and credit purposes. Individual IB courses are recognized as signifying a student's rigorous preparation in an academic discipline; the IB diploma signifies such preparation in all six academic disciplines, service to community, and development of an international perspective.

*Fair and Balanced Assessment Using International Standards* – IB assessment is of many types, occurs several times over the usual two-year duration of IB courses, and includes the classroom teacher as a partner. IB students' work is assessed by several examiners whose assessments are carefully moderated by an international examining board. IB teachers receive detailed formal feed-back on every aspect of their students' IB assessment each year.

*A Remarkable Degree of Flexibility* – IB curricula and examinations are available in IBO's three official languages of English, Spanish, and French. The IB Diploma offers schools a wide variety of courses, teachers a wide choice of topics, and students a wide variety of assessments and areas of specialization.

*Commitment to Authorized Schools* – Schools must undergo an exhaustive application process for authorization to offer our courses. Once authorized, schools are required to participate in IB professional development on a regular basis and to be reviewed every five years by the appropriate regional IBO office.

### **Classes Currently Offered at FITCH for IB:**

IB English 11  
IB French 11  
IB Physics 11  
IB History of the Americas HL  
IB Sports, Exercise and Health Science 11  
IB Information Technology in a Global Society (ITGS) 11  
IB Information Technology in a Global Society (ITGS) 12  
IB Psychology 2  
IB Visual Arts HL 11  
TOK 1  
IB Spanish 11  
IB Biology 11  
IB Theater Arts SL 11  
IB Math Studies SL 11  
IB Mathematics HL 11  
IB Chemistry 11  
IB Business Management 1

IB English 12  
IB French 12  
IB Physics 12  
IB History: Twentieth Century World History 12  
IB Sports, Exercise and Health Science 12

IB Classical Studies in Latin  
IB Visual Arts HL 12  
TOK 2  
IB Spanish 12  
IB Biology 12  
IB Theater Arts SL 12  
IB Math Studies SL 12  
IB Mathematics HL 12  
IB Chemistry 12  
IB Business Management 2

## **UConn Early College Experience**

### **What is the UConn Early College Experience Program?**

UConn Early College Experience (ECE) is a concurrent enrollment program that allows motivated high school students to take UConn courses at their high schools for both high school and college credit. Every course taken through UConn ECE is equivalent to the same course at the University of Connecticut. Students benefit by taking college courses in a warm setting that is both familiar and conducive to learning. High school instructors who have been certified through the University of Connecticut serve as adjunct faculty members and teach UConn ECE courses. Established in 1955,

UConn Early College Experience is the nation's longest running concurrent enrollment program and is nationally accredited by [The National Alliance of Concurrent Enrollment Partnerships \(NACEP\)](#).

### **Why do I need a UConn transcript?**

A transcript is the most important piece of evidence of your college work. UConn Early College Experience students are considered non-degree students at the University of Connecticut and have an official University transcript indicating their coursework. A transcript can be sent with your admissions package when you are applying to colleges and allows you to be a more competitive candidate. Once you have made your choice, a transcript must be sent to your institution in order to transfer credit. The majority of students who have taken University of Connecticut courses through UConn Early College Experience have successfully transferred their UConn credits to the college or university of their choice. UConn Early College Experience credits are usually treated like regular transfer credits. ***Students do not need to attend the University of Connecticut to have their courses recognized.*** While the University of Connecticut cannot guarantee course recognition on behalf of another University, it strives to make the transfer of credits from one institution to another as simple as possible. UConn Early College Experience credits transfer at about 87% according to a 2013 study of concurrent enrollment credit transfer conducted by the Research & Development team in Office of Early College Programs. Students are strongly encouraged to consult with the institution of their choice regarding the transferability of credit. Students must receive a grade of C or above in any UConn Early College Experience course to receive course credit. Any grade below a C will automatically convert to an audit on a student transcript. Students do not receive credit for audited courses. Please note that in some cases, at the discretion of your instructor, you may receive a different grade for the high schools credits than you receive on your college transcript.

### **How does it Work?**

One site representative is readily available to help you. Registration occurs via the UConn ECE online application and course enrollment system, Compass. The UConn ECE Online Application can be accessed through the UConn ECE website at [ece.uconn.edu](http://ece.uconn.edu) only during the application period. Registration for fall, spring and full-year courses takes place in the spring semester. You must first create a unique Compass username and password to apply to the program. You will apply to the program by completing an online application and uploading a consent form by **June 6th**. There is no application fee. Once your application has been reviewed and processed, an approval to enroll email will be sent to you. You will use your NetID credentials to enroll in courses. You must enroll in your approved courses by **July 10th**. If you did not enroll in your approved courses by the **July 10th** deadline, or have decided to drop a course for which you enrolled, you will have the ability to add or drop a course from **August 15th to October 15th**. Add/ Drop requests received after this date will not be accepted. If you did not complete an application in the spring, you must complete one by **September 15th** to be eligible to enroll in courses in the fall. All Add/Drop fees for the 2014-2015 cycle have been waived. If you are dropping a course during the add/drop period and have already paid for your UConn course, you will automatically be refunded your program fee. Refund checks are made payable to the student.

### **Why Do ECE?**

Conn Early College Experience (ECE) is an opportunity for students to take UConn courses while still in high school. Every UConn ECE course is equivalent to the same course at the University of Connecticut. There are approximately fifty courses in over twenty disciplines made available to partner high schools. Courses are taught on the high school campus by high school instructors who have been certified as adjunct faculty members by the University of Connecticut. UConn ECE students benefit by taking college courses in a familiar setting with an instructor they know. Courses offered through UConn ECE are approximately one-tenth of the cost in comparison to taking the same course on a UConn campus.

### **Classes Currently Offered at FITCH for ECE:**

- **AP/UCONN ECE English 11**
- **AP/UCONN ECE English 12**

- UCONN ECE Maritime Studies

## Three Rivers College Career Pathways

### What is the Three Rivers College Career Pathways?

The College Career Pathways (CCP) program is a concurrent, or dual, enrollment program administered by Three Rivers Community College (TRCC). Students gain exposure to the academic challenges of college while in their familiar high school environment, earning college credit and a college transcript when they successfully complete the course. Concurrent enrollment supports the collaboration between high school teachers and college faculty, thus encouraging the alignment of secondary and postsecondary curriculum.

### What are the BENEFITS of taking CCP Courses?

The CCP program allows credits you earn in high school to be applied toward your college education. These college credits can be applied toward a program of study at Three Rivers Community College OR another college or university.

The College Career Pathways Advantage

- Free College Credits in High School
- Save money on college tuition
- Graduate from college early
- Reduce your course load while in college
- An opportunity for career exploration; you can try a greater variety of courses
- Graduate high school with a college transcript - a plus when applying to college or for a job
- Immediate acceptance to Three Rivers Community College
- Demonstrating to college admissions officials that you are capable to succeeding in college-level courses
- Preparation for highly skilled, high paying jobs; College Career Pathways focuses on math, science, communications, and career related skills necessary to become prepared for continued education and the competitive job market

### Classes Currently Offered at FITCH for CCP:

**Algebra II**

**Honor Algebra II**

**Algebra III**

**Honors Pre-Calculus**

**Marine Biology**

**Honors Marine Biology**

**Physics**

**Honors Physics**

## Project Lead the Way - Engineering

### What is Project Lead The Way?

Project Lead The Way (PLTW) provides a comprehensive approach to STEM Education. Through activity-, project-, and problem-based curriculum, PLTW gives students in kindergarten through high school a chance to apply what they



know, identify problems, find unique solutions, and lead their own learning. For educators, our engaging, rigorous teacher professional development model provides tools to empower students and transform the classroom into a collaboration space where content comes to life.

PLTW Engineering is more than just another high school engineering program. It is about applying engineering, science, math, and technology to solve complex, open-ended problems in a real-world context. Students focus on the process of defining and solving a problem, not on getting the "right" answer. They learn how to apply STEM knowledge, skills, and habits of mind to make the world a better place through innovation.

PLTW students have said that PLTW Engineering influenced their post-secondary decisions and helped shape their future. Even for students who do not plan to pursue engineering after high school, the PLTW Engineering program provides opportunities to develop highly transferable skills in collaboration, communication, and critical thinking, which are relevant for any coursework or career.

**Classes Currently Offered at FITCH for PLTW:**

**Introduction to Engineering**

**Principles of Engineering**

**Civil Engineering and Architecture**