COLCHESTER HIGH SCHOOL

PROGRAM OF STUDIES
2024-2025

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Colchester High School Leadership Team

Principal, Andrew Conforti
Athletics, CAP, Leadership Team, Mathematics, NEASC, Professional Development Committee, Science, Technology, and Wellness Committee

Assistant Principal, Chad DeMagistris
Athletics, Attendance, Colchester Alternative Program (CAP), Health, Humanities, Library, Physical Education, Planning Room, Facilities and Maintenance, Transportation and Parking

Assistant Principal, Erica LeClair
AT Program, Attendance, Co-Curriculars, Fine Arts, Music, Planning Room, Smart Start, Target Graduation, Technology, and World Languages

Director of Student Support Services, Amber Keep
504, Colchester Alternative Program (CAP), Education Support Team, English Language Learners, Nurses, School Counseling Services, Social Workers and
Special Education

Team Leaders

Vito Cannizzaro
Fine Arts, Music, and World Languages

Wayland Cole
Humanities (English and Social Studies)

Bob Hall
School Counseling Services

Dave Sharkey & Dana Visser
Special Education

Will Warren
Science

Jaclyn Dixon
Mathematics

Melanie Laquerre
Health and PE

Colchester High School

131 Laker Lane, PO Box 900, Colchester, Vermont 05446

Phone: (802) 264-5700 • www.csdvt.org/chs • Fax: (802) 264-5757

Dear CHS Students and Families,

This CHS Program of Studies represents the sustained effort of the faculty, administrators, and team leaders to develop the most comprehensive and appropriate academic programs for our student body. The Green House/Blue House model recognizes that, in many cases, students in grades 9 and 10 have different needs than students in grades 11 and 12.

Green House students are challenged by a common and integrated curriculum. In the ninth and tenth grade years, students are introduced to the rigor of high school work within a supportive, collaborative, differentiated setting while preparing students for the independence they'll encounter in the Blue House. Students at CHS develop a personalized learning plan to help guide and inform the academic class selections and post-high school plan.

In the Blue House, students choose from various courses designed to meet their personal and career goals. Over the last few years, we have expanded our advanced placement program, elective offerings, and flexible pathways. This serves to meet the needs of students as more and more students seek rigorous and specialized courses in order to prepare students for life beyond CHS. CHS also offers Flexible Pathways for those students who are interested in demonstrating proficiency and earning CHS credit for educational experiences both within and beyond the walls of CHS. Flexible Pathway opportunities include internships, job shadows, employment opportunities, college courses, courses through Virtual High School, options credit and more!

I encourage you to examine the courses offered and how they will fit into your student's long-range plans. Every Colchester High School student is required to earn 24.5 credits to graduate. I urge you and your student to review the specific requirements year by year and make long-range plans accordingly. Furthermore, for many students, course selection is already in place because they have made decisions based on the admission requirements of competitive colleges. It is important that students begin in grade nine to examine their post-secondary plans in their classes and with their school counselor. Your student's personalized learning plan is designed to meet their individual needs as learners and a citizen in the school and beyond.

Please do not hesitate to discuss your child's personal learning plan and individual interests with their school counselor, teachers, and administration. We very much want to know your student well and support you in making good decisions about the academic, social, and emotional needs of your student. We hope that your student's experience at CHS helps them become a lifelong learner ready for whatever they pursue post-CHS.

Sincerely,

Andrew Conforti

Principal

Andrew Conforti
Principal

Chad DeMagistris
Assistant Principal

Erica LeClair
Assistant Principal

Amber Keep
Director of Student Support Services

Oluwadare Sowunmi
Activities and Athletics Director

COLCHESTER SCHOOL DISTRICT

VISION STATEMENT:

We strive to prepare each student for success in life by providing an enriching, welcoming, and safe environment.

MISSION STATEMENT:

Colchester Schools offer diverse educational experiences filled with rigorous and responsive teaching practices. In our collaborative learning community, students are inspired to think critically, act responsibly, communicate effectively, and learn continuously to achieve their fullest potential.

COLCHESTER HIGH SCHOOL MOTTO

Excellence and Equity
in a climate of Respect, Responsibility and Pride

COLCHESTER HIGH SCHOOL CORE BELIEFS

1. We engage in **diverse learning experiences** rooted in relationships, relevance, rigor, and shared responsibility.

2. We **work together** to build on one another's strengths and perspectives.

3. We cultivate a **strong and connected community** that respects and celebrates all Lakers.

4. We demonstrate **respect and compassion** for ourselves, one another, and our school.

5. We create **safe spaces** where all Lakers can thrive.

6. We empower all Lakers to use their voice, pursue their aspirations, and be **active and engaged** members of our community.

COLCHESTER HIGH SCHOOL'S
ESSENTIAL EXPECTATIONS FOR STUDENT LEARNING

LEARN: continuously and mindfully
COMMUNICATE: thoughtfully and effectively
THINK: creatively and critically
ACT: responsibly and ethically

CHS Library Mission Statement

The Colchester High School Library and its Librarians strive to create an inviting, dynamic, and safe space that inspires and honors curiosity, creativity, collaboration, and inclusion. We support and recognize reading as the foundation for building understanding and knowledge. We work to build and maintain a print and digital collection of resources which exemplifies the principles of equity, celebrates diversity of thought and experience, supports lifelong learning, and encourages students to make connections through timely and up-to-date research and leisure reading materials.

Colchester High School AT Program

High performing schools systematically ensure that all students are meaningfully connected with at least one adult in the school and that there is a unified focus on high performance. CHS is an accredited school through the New England Association of Schools and Colleges (NEASC). One of the NEASC required standards for accreditation is:

There is a formal, ongoing program through which each student has an adult in the school, in addition to the school counselor, who knows the student well and assists the student in achieving the school's 21st century learning expectations.

Homebase/AT (Mod 2) is designed to provide systematic opportunities for students to access academic advising, support, activity, and/or intervention over a four year period of time. Homebase/AT focuses on academics within a structure of community building, service, and mentoring. To further elaborate upon this purpose, the following definitions are provided:

- Community Building - Developing positive relationships that foster pride, responsibility, and a desire to become contributing citizens by performing service to the school and greater community.
- Mentoring - Providing guidance to students as they navigate transitions and challenges that they encounter at the various developmental stages of their high school career.
- Academic Support - Ensuring understanding of content, concepts and skills through targeted instruction, intentional grouping and reassessment.

Program Structure: The CHS schedule is structured to include a 30 minute Mod 2 block five days per week from 9:09-9:39.

Homebase: Each week, students meet with their Academic Advisor in a consistent "permanent" location for Homebase. Most weeks Homebase takes place on Monday. The main purpose of Homebase is for students to meet with their Academic Advisor in order to book (schedule) their locations for the AT Mods for that week. Homebase is an integral part of AT as a credit-bearing class.

AT: Each week, students are booked to meet with their teachers during AT mods (mod 2). AT locations are usually in rooms other than the Homebase location unless there is a legitimate academic reason for the student to book a day with their Academic Advisor. While at their AT location, students are engaged in academic activity.

Personalized Learning Plan (PLP): At Colchester High School we believe that a strong connection between future planning and what students are currently doing in academic classes is imperative in order to create life, college, and work-ready students. All students at Colchester High School will develop a Personal Learning Plan (PLP) that will evolve grades 9-12.

COLCHESTER HIGH SCHOOL
GRADUATION REQUIREMENTS

All students must earn a minimum of twenty-four and a half (24.5) credits in Grades 9 – 12, as awarded by the Colchester High School which shall accept credits received from other accredited secondary schools, including summer school.

Colchester High School will provide students the opportunity to experience learning through flexible pathways, including, but not limited to, career and technical education, virtual learning, work-based learning, service learning, dual enrollment,and early college. All learning must occur under the supervision of an appropriately licensed educator.

At Colchester High School academic credit is awarded upon demonstration of proficiency in learning experiences through courses and other non-traditional learning experiences. In courses, students have the opportunity to demonstrate the knowledge and skills for proficiency through a variety of learning experiences and assessments. Each department has delineated 2-8 discipline-specific proficiencies that a student is required to meet for graduation. The scope and sequence of required courses in each department are designed to help students reach the graduation proficiencies (the CHS Essential Expectations and the CHS Discipline Proficiencies). *Please refer to the department specific pages of this Program of Studies for each department's proficiencies.*

When a student receives credit for a particular course, that is an indication that the proficiencies have been met. Taken together, the proficiencies or credits gained will provide a cumulative body of evidence that students have met overall school-wide and discipline-specific graduation expectations and are ready to graduate.

In order for a student to participate in the graduation ceremony, they must have completed the twenty-four and a half (24.5) graduation requirements outlined in this policy.

English	4.0
Social Studies	3.5 (American History, Senior Seminar)
Science	3.5 (Earth System Science, Biology, Chemistry, Physics)
Mathematics	3.5 (Algebra, Geometry)
Fine Arts	1.0
Health	0.5
Physical Education	1.5
Electives	7.0
Total	**24.5**

Recommended Minimum Course of Study for Admission to Four Year Colleges

4 Years of English

3 Years of Laboratory Science

4 Years of Mathematics (Including Algebra II)

3.5 Years of Social Studies

2 Years of the same World Language

Recommended Minimum Course of Study for Admission to Highly Competitive Colleges

4 Years of English

4 Years of Laboratory Science

4 Years of Mathematics (beyond Algebra II)

4 Years of Social Studies

3-4 Years of the same World Language

*Course rigor/AP is a significant factor

FLEXIBLE PATHWAYS

Colchester High School is committed to offering students multiple avenues toward earning a high school diploma. Personal Learning Plans (PLPs) will guide students' choices in the discovery and attainment of their high school goals. Students may benefit from taking advantage of some of the options below as they create their course schedule. Students who would like to participate in an option not listed below should contact their school counselor.

DUAL ENROLLMENT

Dual Enrollment offers students in grades 11-12 options for exploring post secondary education prior to graduation. Students enrolling in the program may take college courses at five of the area colleges and earn both high school and college credit for successful completion. Dual Enrollment is offered after school hours and is not intended to replace existing high school courses.

College Partners

- University of Vermont
- Community College of Vermont
- Saint Michael's College
- Champlain College
- Vermont State University

Cost
Dual Enrollment allows students to take up to two college classes with no tuition cost. Families and students must pay any associated course fees. Additional courses beyond those taken through dual enrollment may be available. Please see your counselor for details.

Courses
Courses vary by college and semester.

How do I enroll?
See your counselor for an application and a list of available courses. Students may need to take the Accuplacer assessment prior to enrolling in a college course.

OTHER COLLEGE CLASSES

Introduction to College & Careers:
This course may, at times, be held at Colchester High School after school hours. See your school counselor for more information.

Community College of Vermont is offering a free, 13 week class, to all area high school students. In this class you will learn how to become a successful college student by learning how to:

- Reduce test anxiety
- Take better notes
- Use time and stress management techniques
- Practice goal-setting and problem-solving
- Expand communication skills
- Explore college options and financial aid
- Learn to manage your finances and budget

OPTIONS PROGRAM

What Is It?
The Options Program is designed to provide students "options" in and outside the school setting. Students are required to develop an individual plan outlining goals and methods of assessment. A student is not accepted into the program until the plan has been approved.

Who Can Enroll?
Students entering grades 11 and 12 may apply for work study credit. Students in grades 9-12 may explore any of the other options depending on their individual needs.

How Can This Help Your Student?
The Options Program is useful in helping students define career goals. It may be used to test career choices and begin to make employment connections. These experiences are assets in the college admissions process and represent genuine experience on the student's resume. The Options Program is especially suited for students who need skills not provided by the traditional curriculum at Colchester High School. However, students may decide not to apply for credit. Students may earn up to two (2.0) options credits during high school which may be applied toward elective graduation credit. Students may not use options credit to fulfill core graduation requirements. Students must apply for options credit during the academic year in which they are earning it. If a student seeks to earn credit for summer activities, they must apply before the end of the following academic year.

OPTIONS:
Community Service: Students may receive credit for their volunteer community service projects in the school and in the community.

School Aide: Students may receive credit for working as an assistant under the guidance and supervision of a CHS staff member.

Work Study: Juniors and seniors may receive credit for career exploration, job shadowing, apprenticeships, internships, and monitored work experience.

External Credits: Consult your school counselor, or the administration for guidelines regarding credit for college courses, summer school and night school. Students are not permitted to use outside courses to complete their graduation requirements.

Independent Study: Students may propose an independent study if the content is not available in the regular CHS curriculum. Students may not, however, propose an independent study to fulfill a graduation requirement. The process for pursuing an independent study is outlined in the student handbook.

TARGET GRADUATION

Contact your school counselor regarding alternative programs and the admission criteria.

VIRTUAL HIGH SCHOOL

Virtual High School is a global consortium of schools offering classes to each other via the internet. We've found that VHS classes offer **more time to be reflective** about discussions. Students are not bound to just the class period to discuss a topic—that's one of the benefits Virtual High School's asynchronously scheduled courses bring to education. Students have the opportunity to **work with other students** in a virtual classroom space—students (and teachers) from other states, other countries, other cultures. It is a tremendous enhancement to a student's educational experience and lots of fun! VHS classes also help **students better prepare for college** and work-force learning. VHS students tell us that they feel better prepared for college because in VHS they learned to work independently and were responsible for managing their time and learning. In fact, many colleges are now using **online courses** to enhance face-to-face college courses, and VHS students have a head start because they are already accustomed to learning in an online environment! Virtual High School offers a terrific way for students to broaden their educational horizons and take classes that would otherwise be unavailable to them, in an environment that is safe, challenging and fun.

See your counselor to learn more about taking a VHS class.

ADVANCED PLACEMENT PROGRAM

Every year more than 1,400 colleges and universities award sophomore status to incoming first year students based on their performance on the College Board's Advanced Placement examinations. There are a number of advantages inherent in enrolling in advanced placement courses and successfully completing the examinations. Competitive colleges and universities place considerable weight on the rigor of the student's high school program. Students in advanced placement courses have chosen the most rigorous program we offer. Each college and university has a standard for determining the number of credits offered for examinations completed and the grade required to earn that credit. You may obtain specific information about the college or university of your choice by contacting the institution directly. A course credit conversion table for the University of Vermont is available in the School Counseling Office.

In recognition of the advantages advanced placement courses offer our students, we have developed a recommended planning process and enrollment guidelines for students who wish to pursue this level of academic work at Colchester High School. Please note that all students enrolled in AP courses are highly encouraged to take the AP examination.

Grade 9:

- Students enroll in the course of study for highly competitive colleges: please see your school counselor to create a plan.

Grade 10 or 11:

- Students continue recommended course of study for highly competitive colleges and enroll in at least one AP course.

Grade 12:

- Students continue recommended course of study for highly competitive colleges and enroll in one or (preferably) more AP courses provided that they meet the prerequisites. **Note: colleges do consider the student's academic performance (letter grade) in AP courses. Students should not enroll in AP courses for which they are not prepared.**

2024-2025 Advanced Placement Offerings

Area	AP Examination	CHS Course Title
Area I Languages Composition	English Language and Composition	AP English: Language and Composition
	English Literature and Composition	AP English: Literature and Composition
Area II Sciences	Biology	AP Biology
	Physics C: Mechanics	AP Physics
	Chemistry	AP Chemistry
	Environmental Science	AP Environmental Science
Area III Mathematics	Calculus AB	AP Calculus
	Statistics	AP Statistics
Area IV History & Social Sciences	U.S. History	AP U.S. History
	Human Geography	AP Human Geography
	United States Government and Politics	AP U.S. Government & Politics
Area V Other	Studio Art – General	Advanced Studio Art *(with appropriate supplementary study)*

ADDING OR DROPPING PROCEDURES

ANY STUDENT SEEKING TO MAKE A CLASS CHANGE MUST DO SO DURING THE DESIGNATED ADD/DROP PERIOD IN AUGUST AND JANUARY.

No student may drop or add a class after the designated time. If dropping a course would result in a student carrying fewer than 6.0 credits the change will not be approved. An appropriate course must be added or an administrative waiver obtained.
In limited circumstances, a student may be permitted to withdraw from a class after the designated add/drop period. They will receive the notation below on their transcript. Please note that receiving any of the following will affect the honor roll for the quarter in which the student has elected to withdraw from a class. In addition, it may affect athletic eligibility as well. Students are strongly encouraged to meet individually with their school counselor and the athletic director (if applicable) prior to requesting permission to withdraw from a course.

WP - student is passing the course at the time of withdrawal

WF - student is failing the course at time of withdrawal

ALL STUDENTS MUST CARRY 6.0 CREDITS (6 out of 8 mods of academic classes each semester). Students must be enrolled in six (6) classes both semesters. Students interested in exploring Flexible Pathways should schedule an appointment with their counselor.

The student is expected to remain in the original class until the change is made. Failure in the class is not considered a just reason to drop the course. The fact that the class is not needed to graduate is not sufficient reason to drop the class either. CHS believes that under most circumstances, the student will benefit from remaining in an academic setting. Appropriate accommodations might include converting to pass/fail or developing a contract to improve the student's academic/behavioral performance. **No change will be made based on teacher preference.**

NCAA ELIGIBILITY

Many college athletic programs are regulated by the National Collegiate Athletic Association (NCAA), an organization founded in 1906 that has established rules on eligibility, recruiting, and financial aid. The NCAA has three membership divisions—Division I, Division II, and Division III. Institutions are members of one or another division according to the size and scope of their athletic programs and whether they provide athletic scholarships.

If you are planning to enroll in college as a freshman and you wish to participate in Division I or Division II athletics, **you must be certified** by the NCAA Eligibility Center. The Eligibility Center was established as a separate organization by the NCAA member institutions in January 1993. The Eligibility Center ensures consistent interpretation of NCAA initial-eligibility requirements for all prospective student-athletes at all member institutions.

Your Responsibility as a Prospective Student-Athlete

It is your responsibility to make sure the Clearinghouse has the documents it needs to certify you. These documents are:	Your completed and signed Student Release Form and fee	Your official transcript from every high school you have attended	Your ACT or SAT scores

When to Start the Process

If you want to participate in Division I or Division II athletics, plan to start the certification process early—usually during your junior year in high school. You must meet certain course requirements. They include successfully completing a core curriculum of at least 16 academic courses in the following categories: **English, Mathematics, Social Studies, and Science**. You must also meet the minimum requirements for GPA and SAT, ACT test scores. Students should obtain a copy of the *NCAA Guide for the College Bound Student-Athlete* online at https://www.ncaa.org/.

The following symbols are used to identify acceptable courses.

- ♦ Approved course
- ✓ Under review for approval

ACADEMIC COURSE OFFERINGS

Fine Arts

The arts are not only a means of expression, but have been proven to be a way to improve literacy, critical thinking skills and creative problem solving. Study of visual art or music is an important part of a student's complete educational experience at Colchester High School. Students must complete one fine arts credit for graduation, in either visual art or music.

Visual Art Discipline Proficiencies

- **Create:** The CHS graduate can generate, organize, develop, and refine artistic ideas to create works of art.
- **Respond:** The CHS graduate can understand how art conveys meaning through describing, analyzing, interpreting, and evaluating works of art.
- **Connect:** The CHS graduate can connect artistic ideas and work with societal, cultural, historical, and personal meaning.
- **Present:** The CHS graduate can share artistic work through selecting, preparing, interpreting, and presenting in the CSD art show or other exhibition venue.

#601 Drawing:
The **Drawing** course explores how to capture value, texture, form, movement, pattern and more in both traditional and non-traditional drawing media and techniques. The subject areas of Still Life, Portrait, Landscape, Figure, and Abstract Art will be presented in a variety of ways, using dry and wet media. The art of **Drawing** is taken beyond pencil and paper to explore unexpected surfaces and materials. Students will be challenged to apply their knowledge of the Elements of Design and the Principles of Composition in a variety of Still Life, Landscape, Portrait, Figure, or Abstract forms of art using historical and contemporary artists for inspiration in creating their own expressive statements.
Prerequisite: None. **Duration: Semester. Credit: 0.5 Fine Arts.**

#602 Painting:
Discover the joy of painting in watercolor, acrylics, and tempera paints, as well as some non-traditional media. Anything that can be used as a brush and any material that can be applied to a surface is fair game for this exploration of the limits of color and design. Students will be challenged to apply their knowledge of the Elements of Design and the Principles of Composition in a variety of Still Life, Landscape, Portrait, Figure, or Abstract forms of art using historical and contemporary artists for inspiration in creating their own expressive statements.
Prerequisite: None. Duration: Semester. Credit: 0.5 Fine Arts.

#603 Pottery 1:
Come on in and get down and dirty with clay (Seriously, you are going to get dirty!). Explore the many ways of creating works of art out of clay, including many hand building techniques, and the Pottery Wheel. Make decorative sculptures and functional vessels that you and your relatives will want to keep forever. This course will guide you through many different units exploring many facets of the clay medium. Learn the process of this medium from raw clay to glazed works of art. You will use and enhance your knowledge of the Elements of Design and Principles of Composition by creating original works of Art in clay.
Prerequisite: None. **Duration: Semester. Credit: 0.5 Fine Arts.**

#604 3D-Art:
Come and explore the 3rd dimension of Art in this exciting class that will teach you all about sculpture. Learn the categories, types, and methods of sculpture while you use and enhance your knowledge of the Elements Design and Principles of composition. You will explore and use a variety of media including but not limited to clay, wood, metal, plaster, paper/cardboard, and glass. Learn the proper use and techniques of a variety of tools including hand tools like chisels, rasps, brushes, hammers, etc…, and power tools like drills, saws, grinders, soldering irons, etc… Get ready to roll up your sleeves and create things you never thought possible.
Prerequisite: None. Duration: Semester. Credit: 0.5 Fine Arts.

#685 Photography:
Experience the past, present and future directions in the world of creating images with light – also known as Photography! Go beyond simply clicking the shutter to learn the traditional fine art techniques of film photography and darkroom developing. Hone your skills in current forms of digital manipulation of images and color printing of quality works of art. Explore the many applications of contemporary imaging software and the wide array of future careers in the field of image production.
Prerequisites: Two art classes of your choice (80 or better in each), and 11th or 12th grade. Duration: Semester. Credit: 0.5 Fine Arts.

#661 Pottery II:
Come back to the Pottery Studio and create bigger and better projects. Learn to make and defend your own decisions while you make your art. All of your skills learned in Pottery I will be utilized and enhanced in this class, as well as your knowledge and use of the Elements of Design and Principles of Composition. Learn new techniques on the wheel and new handbuilding techniques using slabs, coils and the extruder . You will also learn about alternatives to glaze for decorating/finishing clay. You will be creating functional and sculptural works in this class.
Prerequisite: Pottery 1 (80 or better). Duration: Semester. Credit: 0.5 Fine Arts.

#651 Advanced Studio Art
Experience the reality of working as a studio artist. This course is designed for students who are self-motivated and want to develop their own style and interests. Students can focus on their medium of choice including painting, drawing, or sculpture. Students will do guided projects in this course, but also develop a body of independent work surrounding an area of inquiry. Your concentration of work will be presented at the end of the course. This course also has the option to support students in creating an AP Art Portfolio that can be submitted to the College Board in May. Students interested in this option must discuss with their art teacher and guidance counselor to plan independent work to complete the AP Portfolio during Semester 2.
This course will be offered as enrollment and staffing allow.
Prerequisites: Teacher Recommendation, Painting, Drawing, Pottery 1 or 3D-Art (all classes 85 or better), 11th or 12th grade. Duration: Semester. Credit:0 .5 Fine Arts.

Music

Music Discipline Proficiencies

- **Music Literacy:** The CHS graduate can demonstrate music literacy by applying musical concepts and terminology.

- **Music, Culture, and History**: The CHS graduate can understand the relationship among music, history and world culture.

- **Communicate:** The CHS graduate can create, perform, and/or express ideas through music.

#639 Chorus:
Students enrolled in CHS Chorus will rehearse and perform music from many cultures, time periods and styles. Chorus is meant for freshmen, to give them a foundation in choral singing. Students will learn music fundamentals (rhythm, music notation, vocabulary), improve their understanding and control of basic vocal production (breath support, vowels, technique, etc.), and the art and skill of performing individually and in an ensemble. This class allows the opportunity for involvement in ensembles/activities such as the CHS Concert Choir, CHS Chamber Singers, District III Choral Festival and All-State Music Festival.
Prerequisite: None. Duration: Full Year. Credit: 1.0 Fine Arts.

#622 Concert Choir:
This class will offer intermediate to advanced level singers the opportunity to learn and perform choral music of various time periods, styles and cultures. Students will *continue* to learn music fundamentals (rhythm, music notation, vocabulary), improve their basic understanding and control of **excellent** vocal production (breath support, vowels, technique, etc.), and the art and skill of performing in an ensemble of more experienced singers, and individually. This class allows the opportunity for involvement in such activities as the CHS Chamber Singers, District III Choral Festival and All-State Music Festival.
Prerequisite: B or better in high school chorus, and ability to match pitch and hold harmony, or teacher's recommendation. Duration: Full Year. Credit: 1.0 Fine Arts.

#618 Chamber Singers:
This ensemble is made up of advanced singers who have auditioned and been selected. The group meets outside of the regular school day to rehearse and learn challenging repertoire, most of it performed a cappella. A diversity of choral styles ranging from tight jazz harmonies to traditional Renaissance madrigals will be performed several times per year. A strong commitment to learning assigned parts, working in a small group and reading music are requirements for this class.
Prerequisite: Successful audition. Duration: Full Year. Credit: 1.0 Fine Arts. This class meets after school.

#922 Beginner Guitar:
Beginner Guitar is a semester course geared towards first time and beginning level guitar players. Students will become familiar with guitar vocabulary, building and playing basic chords, strumming patterns, and tuning by ear. They will also learn the history of rock music, learning songs from each style along the way. Student directed projects will be used to apply the fundamentals learned in class. No previous experience necessary. Guitars provided by the school. *This course is not offered annually. It will be offered as enrollment and staffing allow.*
Prerequisite: None. Duration: Semester. Credit: 0.5 Fine Arts.

#621 Beginner Piano:

This class will offer students the opportunity to learn how to play the piano. Students will learn the basics of music fundamentals (rhythm, music notation, vocabulary), master one and two handed playing, the skill of performing in an ensemble (with other students), and individual performance. Students will play many different styles of music including folk, pop, and classical. If you've always wanted to learn how to play the piano, this is the class for you!

Prerequisite: None. Duration: Semester. Credit: 0.5 Fine Arts.

#623 Intermediate Piano:

Intermediate Piano is a course designed as a follow up course to Beginner Piano. Students will have the opportunity to build on the piano skills learned either through Beginner Piano or through private lessons previously taken. Students will have independence to learn music at their own level. We will explore many different styles of music, continue to learn how to read music notation, build our technique and ability for playing with both hands, and the basics of music theory.

Prerequisite: Beginner Piano. Duration: Semester. Credit: 0.5 Fine Arts.

#640 Chorale:

This ensemble offers treble singers an exciting opportunity to sing in an all-treble choir. The group meets outside of the regular school day to rehearse and learn challenging repertoire. A diversity of choral styles ranging from the Renaissance to current popular music will be performed several times per year. A strong commitment to learning assigned parts, working in a small group and reading music are requirements for this class. ***NOTE: This class meets after school for 1 hour each week.***

Prerequisite: Teacher recommendation. Duration: Full Year. Credit: 0.5 Fine Arts.

#624 Introduction to Music Theory:

If you are interested in learning more about how music is constructed, then this is the course for you! Students will learn about the elements of rhythm, melody, harmony, chord structure,and form. Students will listen and analyze music from many different genres and styles. Not only will students learn to read various musical elements, such as scales, chords, pitch notations, and time signatures, they will also learn to construct these elements themselves and compose their own music.

Prerequisite: Beginner Piano, Basic Guitar or one of the performing ensembles. Duration: Semester. Credit: 0.5 Fine Arts.

#620 Music Technology:

Music Technology is a course designed as an introduction to modern music software .Through the Mixcraft software, students will have the opportunity to create and record music through use of digital loops, MIDI input and live instrument recording. Students will be learning about basic song structure and composition elements in various projects. Students will explore many aspects of music composition, such as playing and creating chords, melodies and riffs, as well as adding music and sound effects to movies and other media

Prerequisite: None. Duration: Semester. Credit: 0.5 Fine Arts.

#635 Colchester Concert Band:

The Colchester High School Concert Band provides any high school student the opportunity to perform quality band music in an ensemble, while developing their individual performance skills. Students will have the opportunity to perform a diverse array of music in various settings, including solo and chamber group performances, honors festivals, concerts (both within and outside of the school district),and travel experiences. Students without instruments can contact the director for information regarding the use of a school-owned instrument.

Prerequisite: Previous band experience or teacher recommendation. Duration: Full Year. Credit: 1.0 Fine Arts.

#619 Colchester Jazz Band:
The Colchester High School Jazz Band strives to replicate the big band sound through the rehearsal and performance of traditional and contemporary jazz ensemble literature. Improvisation is a key element to this course, however no prior soloing experience is necessary. This ensemble performs at all school instrumental concerts and is regularly asked to perform outside of the school setting. **This class meets after school.**
Prerequisite: Previous band experience or teacher recommendation. Duration: Full Year. Credit: 1.0 Fine Arts.

#626 Colchester Wind Ensemble:
This select ensemble is appropriate for students who have achieved proficiency with the skills and concepts learned in Concert Band, and are ready for more advanced repertoire. Music selections will be diverse and will continue to challenge students, as well as maintain a rigorous ensemble experience. Students in the wind ensemble will be offered the same traveling and performance experiences as the concert band. Students must audition to be considered for this class. Acceptance will be based on proficiency shown in audition, as well as the instrumental needs of the ensemble.
Prerequisite: Teacher recommendation. Duration: Full Year. Credit: 1.0 Fine Arts.

Health and Physical Education

Students are required to complete one semester of health for graduation. Normally students enroll in *Human Ecology* in the Green House. Students may fulfill the health requirement in the Blue House through *Life 101*. In addition, *Life 101* is a very valuable elective to take in addition to Health. *Food! From Soil to Stomach fall and spring* class focuses on sustainability and creating change, important themes to explore and experience for living in the 21st century.

Students are required to complete three semesters of physical education for graduation. Students may fulfill the physical education requirement in both the Blue House and/or Green House.

Health and Physical Education have teamed up to offer one elective semester course called Eat! Play! Live! This fitness and wellness course gives you the opportunity to improve your overall health by designing and engaging in your own personalized program during class, as well as, discussing exercise apps, screen time, the importance of sleep, and nutrition during exercise and competition. Everyone is welcome, come with a positive attitude and willingness to move!

The electives listed below represent our expanded vision for meeting the needs of all students. These courses will be incorporated into our Pathways in the future and may become part of the Personal Learning Plan.

Health Discipline Proficiencies

- **Good Health:** The CHS graduate can comprehend core concepts related to health promotion and disease prevention to enhance health.

- **Decision Making & Goal Setting:** The CHS graduate demonstrates the ability to use decision-making skills and goal-setting to enhance health.

#750 Human Ecology:

The purpose of this course is to give students an introduction to the information necessary in making educated decisions concerning their physical, mental, emotional, and social well-being. Topics covered will include personal health, mental health, disease prevention, human sexuality, and tobacco/alcohol/drug education.
Prerequisite: Grades 9-10. Duration: Semester. Credit: 0.5 Health.

#716 Life 101:
This is a junior/senior elective course designed to prepare students for transitioning into life after high school. Topics will include personal health, healthy relationships and communication, the life cycle, human sexuality, and drugs/alcohol. Each topic will be covered with an emphasis on hands-on activities and personal applications.
Prerequisite: Grades 11-12. Duration: Semester. Credit: 0.5 Health.

#717 Food! From Soil to Stomach:
Do you like to eat? But wait, what are you eating? Where did it come from? What's in it? This course is for the student who wants to explore the many facets of food including growing, cooking, and EATING. Topics to be covered include nutrition, conventional versus organic agriculture, and the systems in place for food production, distribution, and removal. This class focuses on sustainability and creating change, important themes to explore and experience for global citizenship in the 21st century.
Prerequisite: Hunger (for knowledge and food). Grades 9-12. Duration: Semester. Credit: 0.5 Elective.

Physical Education
Physical Education Discipline Proficiencies

- **Motor Skill Knowledge and Use:** The CHS graduate can demonstrate proficiency in a variety of motor skills and movement patterns.
- **Motor Skills Analysis:** The CHS graduate can apply knowledge of concepts, principles, strategies and tactics related to movement and performance to analyze and improve performance of self and/or others in selected skills.
- **Physical Fitness:** The CHS graduate can demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.
- **Affective Qualities and Social Interaction:** The CHS graduate can exhibit responsible personal and social behavior that respects and promotes success of self and others.
- **Physical Literacy**: The CHS graduate can recognize the value of physical activity as part of a healthy lifestyle.

#735/740 Physical Education:
The major emphasis of the physical education department is to promote lifetime fitness through basic instruction in a broad range of physical activities. The department offers 25 different activities (units), with the majority being in the areas of individual sports and outdoor recreation. Units last approximately three weeks, or six to eight classes. In order to earn 1.5 credits students must successfully complete the equivalent of 18 units or, 3 semesters. Listed below is a complete listing of the activities offered throughout the year:

Lifetime Activities: Students must take at least four different units

Crossfit/Yoga	Dance
Badminton	Tennis
Pickleball	Outdoor Team Sports
Racquetball	Table Tennis

Outdoor Recreation Activities: Students must take at least two different units

Canoeing	Mountain Biking
Climbing Wall	Orienteering
Cross Country Skiing	Snowshoeing
Ropes Course	

Teambuilding Unit:
All students must take the 3-week ***Team Building*** unit which focuses on the elements of teamwork, self confidence, trust, and cooperation.

Fitness Programs: (All students must take the ***Personal Fitness*** unit)
Personal Fitness and Nutrition (required 5 week program)
CORE Training
Strength Training and Conditioning

Team Sports: Students need to take two different team sports
Softball
Mini Unit of Team Sports (Basketball, Indoor Soccer, and European Team Handball)
Volleyball

Alternative Credit Options: It is possible for students to earn partial credit for participation in one of the following programs during the semester in which they are enrolled in PE:
Independent Study
Interscholastic Sports
NOTE: All athletic credit and independent studies requests must be approved in advance by The Physical Education Department.

Prerequisite: None. Duration: Semester. Credit: 0.5 Physical Education.

#736 Eat! Play! Live! A Fitness and Wellness Course:
Do you want to move quicker, be stronger, eat healthier, or reach a personal wellness goal? Maybe you want to learn to do something that will improve your fitness in a positive way with others. If this piques your interest, then this class is for you! This course is for young people of all skill levels who are committed to explore their own current health behaviors, examine how these behaviors make them who they are, and explore what can they do to change, improve their personal health and be successful, productive 21st century graduates.
Prerequisite: Grades 10-12. Duration: Semester. Credit: 0.5 Elective.

Humanities
Green House English and Social Studies

The Humanities offerings attend to the developmental differences between students in the Green (grades 9 and 10) and Blue (grades 11 and 12) houses. Green House humanities courses are heterogeneous, differentiated, team-taught, two-credit courses that integrate the study of English and social studies. The grade nine curriculum focuses on world cultures and global studies and grade ten students complete a full year of American studies. In Green House humanities, students use historical events to deepen an understanding of literature, and look to literature to support a rich understanding of history.

In both Green House years, students are grouped with intention so that each class includes the diverse range of students present in the entire grade-level cohort. The defining element of these courses is the approach known as differentiated instruction. Green House teachers are skilled practitioners of this pedagogy, which adjusts the course's process, products, and content, according to students' readiness, interests, and learner profiles. Differentiated instruction requires that teachers know their students well so they can meet them where they are and take them as far as they can go. Parents, teachers and students work together to make sure that all students are actively engaged in their learning.

Upon successful completion of the Green House courses, students enter the Blue House, which offers some required courses in English and Social Studies, as well as a variety of semester-long courses that allow students to pursue their interests. With the exception of the Advanced Placement courses in the Blue House, there are no exclusively advanced level courses.

All students will experience differentiated curriculums that are rigorous and relevant. Most courses embed individualized challenge opportunities within the traditional curriculum in the form of honors orbital projects and other enrichment activities. Students of high readiness who desire greater challenge than our traditional course offerings, however, may enroll in a variety of advanced placement courses in the humanities.

English Discipline Proficiencies

- **Read:** The CHS graduate can effectively summarize, analyze, interpret, and evaluate to comprehend a variety of complex texts.
- **Write:** The CHS graduate can produce clear and coherent writing for a variety of genres (narrative, informational, argumentative), purposes, and audiences.
- **Inquiry & Research:** The CHS graduate can inquire independently to develop and respond to relevant questions and challenging questions about the past and present, in order to demonstrate ability to evaluate multiple sources of information for bias, reliability, and credibility; synthesize information from multiple sources; make a well-informed claim; and present findings in a coherent, engaging way.
- **Speaking & Listening:** The CHS graduate can show the ability to engage in a dialogue of ideas by listening actively and speaking with relevance and respect.

Social Studies Discipline Proficiencies

● **Read:** The CHS graduate can effectively summarize, analyze, interpret, and evaluate to comprehend a variety of complex texts.

● **Write:** The CHS graduate can produce clear and coherent writing for a variety of genres (narrative, informational, argumentative), purposes, and audiences.

● **Inquiry & Research:** The CHS graduate can inquire independently to develop and respond to relevant questions and challenging questions about the past and present in order to demonstrate ability to evaluate multiple sources of information for bias, reliability, and credibility; synthesize information from multiple sources; make a well-informed claim; and present findings in a coherent, engaging way.

● **Disciplinary Thinking:** The CHS graduate can demonstrate knowledge and understanding of essential topics in history, economics, geography, and civics and the patterns that emerge among them.

● **Citizenship:** The CHS graduate can engage actively with others as global citizens to deepen their understanding of how structures of government impact them and how participating in civic life may shape government's impact on their world.

Grade Nine

#314n The Regimes & Revolutions of the Modern World: ♦
Ninth grade humanities is a team-taught, two-credit course that integrates the study of English and social studies. Students will be challenged by a common, concept-based curriculum that asks them to explore the role of people and governments in promoting or limiting freedom. Students should expect to read and learn about current events around the world, including how dictators gain and maintain power in some of today's most prominent countries. They will engage with core texts that are aligned with course content in order to write and think critically about movements and revolutions for freedom in some of the world's more recent democracies. They will examine the existential battle between democracy and authoritarianism, and study the current and historical strategies that everyday people use to fight back when their rights and freedoms are threatened. Students will understand the impact historical events have on the modern world and think critically about the role each global citizen plays in our collective future.

Ultimately, students will grapple with questions like "what is freedom?" "how do repressive governments limit the rights of their citizens?" and "how do people fight for greater rights and equality?"
Prerequisite: Successful completion of CMS English and Social Studies requirements. Duration: Full Year. Credit: 2.0 (1 English & 1 Social Studies).

#334 Strategic Reader (Grade 9):
Strategic Reader is a year-long course committed to helping first-year students become more competent and comfortable readers. Students will practice and master a repertoire of strategies for recognizing and making sense of literary and informational texts. Additionally, students will be supported as they read core readings in their grade-nine humanities class, *The Regimes & Revolutions of the Modern World*. This course seeks students who struggle with reading who are also eager to take advantage of an extended learning opportunity designed to help them handle the increased reading expectations at the high school. Students are selected for this course based on data from the middle school.
Prerequisite: Teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

Grade Ten

#363 The American Experience: ♦
This course integrates the study of literature, inquiry, and topics including U.S. system of government, Reconstruction, Civil Rights, and conflicts such as WWI, WWII, and the Cold War. Students examine historical periods in depth thematically. Students in American Experience are heterogeneously grouped so that each class includes the diverse range of learners present in the sophomore class. The course differentiates content, process, and products according to students' different readiness levels, interests, and learning styles.
Prerequisite: Grade 10. Duration: Full Year. Credit: 2.0 (1 English & 1 Social Studies).

#335 Strategic Reader (Grade 10):
Strategic Reader is a year-long course committed to helping tenth grade students become more competent and comfortable readers and learners. Students will practice and master a repertoire of strategies for recognizing and making sense of literary and informational texts. Additionally, students will be supported as they read core readings in their grade-ten humanities class, American Experience. This course seeks students who struggle with reading who are also eager to take advantage of an extended learning opportunity designed to help them handle the increased reading expectations at the high school. Students are selected for this course based on data from grade nine core classes.
Prerequisite: Teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

Blue House English

Students must be enrolled in an English course for all four of their Blue House semesters, and earn a total of at least 2 English credits in the Blue House in order to graduate, totalling 4 English credits over 4 years.

The humanities Blue House English courses are designed to empower students to develop their individual interests related to literature and writing. In order to fulfill this objective, students must enroll in some required courses, but are also encouraged to select from a variety of offerings based on their interests and readiness.

All juniors must enroll in either: **"T.H.E.E.: The Human Experience: English"**, a full-year, concept-based, differentiated English course, OR "**Advanced Placement English Language**."

Seniors must enroll in **"Seminar,"** a year-long interdisciplinary English AND social studies course. **"Seminar"** asks students to read, write, think about current community, social, and political issues and demonstrate their learning in a public event at the end of the school year. Students earn .5 English and .5 social studies credits for **"Seminar."**

Junior Year Requirement

#306 The Human Experience: ENGLISH (THEE) ♦
"T.H.E.E." is a 1-credit, year-long English course for eleventh graders not already enrolled in AP English. At its core, T.H.E.E. allows students to see the beauty of the English language in the images of the world all around them by asking them to read, view, and listen to a whole array of stories, all of which have something to do with transformative experiences that define our humanity. In T.H.E.E. students will delve into stories that are both old and new, long and short, simple and complex, all so that we may consider the circumstances that *inspire humans to transform, to change, to grow*. By exploring the transformative experiences of characters, we seek to gain a deeper understanding of what inspires change in our own lives and what that change may look like once it takes shape.

Over the course of the year, we'll read some contemporary stories, plays and poems from a variety of authors. We'll also read traditional stories that have fundamentally impacted the English language, like Homer's "The Odyssey" and Shakespeare's *Macbeth*. No matter what we're reading,we'll garner the wisdom that awaits us in these rich and insightful stories.
Required for all juniors not enrolled in AP English. Duration: Full Year. Credit: 1.0 English.

Senior Graduation Requirement

#471 Seminar: ✓
Seminar is the year-long culminating humanities course required for all twelfth graders at Colchester High School. In Seminar, students will engage in personal reflection, considering the factors that have shaped them in a personal essay. They will further examine how their perspectives influence how they view current events. Students will ultimately identify a pivotal issue relevant to themselves and society today and use that issue to design and execute an extended inquiry study. During the span of the year, students will practice the foundational skills needed to execute an extended inquiry study, create an inquiry plan and complete the research required to fulfill that plan. Students should expect to demonstrate skills essential to all learning -- critical reading and thinking, reflective and argumentative writing, and communication -- within the scope of their inquiry study.
Prerequisite: Required of all seniors for graduation. Duration: Full year. Credit: 0.5 Social Studies, 0.5 English.

Additional English Offerings

#359 Creative Writing: ♦
In this course, students will explore writing fiction, creative nonfiction, and poetry. In addition to learning techniques to create dialogue, plot, characters, setting, and dramatic tension, students will learn to write from their own experiences. This approach to writing – "start with your own life" – will show students how to begin a story from a character or an incident, real or imagined. All students will write and revise on a consistent basis, as well as read the work and writing tips of professional authors. Students will share their work with each other in a supportive, collaborative environment as they develop their craft and refine their personal voices as writers.
Prerequisite: None. Duration: Semester. Credit: 0.5 English.

#390 Detective Fiction: ♦

Students in Detective Fiction will delve into the world of crime-solving and suspenseful storytelling. We'll explore the minds of fictional detectives, analyze the intricacies of criminal investigations, and unravel the secrets hidden within the pages of detective stories — from classic whodunits to modern procedurals. Throughout the course, students will engage in critical discussions, analytical readings, and creative exercises to deepen their understanding of the detective fiction genre. The course will culminate in an immersive mystery for students to solve themselves.

Prerequisite: None. Duration: Semester. Credit: 0.5 English.

#360 Film Studies: ♦

In Film Studies, students will view and analyze films in order to understand how the craft and content of filmmaking unite to create unique experiences for viewers. To unpack the complex meanings of this type of text, students in Film Studies will employ many of the same strategies they use when reading literature (predicting, interpreting, and questioning), in addition to new strategies they learn for analyzing techniques specific to film (camerawork, editing, cinematography). The course includes units on the history of film, the work of Alfred Hitchcock, and comedy. Students should be prepared to read, write, and discuss regularly.

Prerequisite: None. Duration: Semester. Credit: 0.5 English.

#417 Modern Media Impact:

This class is designed as an introduction to media studies. We will try to cover as many forms of media as possible, including print, digital, cultural, and social media. Media studies connect to many other topics, so this will also be a class about psychology, economics, history, sociology, entertainment, politics, technology, and whatever else we run into through investigation and discussion.

The purpose of media literacy education is to help us develop the habits of inquiry and skills of expression we need to be critical thinkers, effective communicators and active citizens in today's world. We will practice skills in order to access, analyze, evaluate, create, and interact with media in a healthy and productive way.

Media Literacy is a habit and a process that requires practice and time. This requires a shift from consumption to production as we switch from passive receivers to critically engaged participants in a global public discourse. We aim to better ourselves and our community and develop a better understanding of perspectives through media.

Prerequisite: None. Duration: Semester. Credit: 0.5 English. NOT NCAA approved.

#318 Popular Literature: ♦

Popular literature is popular culture. In this class students will analyze popular literature by breaking it down, situating it in history and trying to figure out its cultural significance. Context helps us determine how narratives are shaped and how they reverberate with the larger themes of society. Students will engage with and practice thinking about a variety of texts, and consider how stories are relevant to our own lives. Students should expect to dig into current and popular stories and consider how these texts make the leap into popular culture, combining and evolving with culture over time. As we read, we will consider a story's historical and cultural significance, how it reflects the society it exists in, and what gives it staying power over the years.

Prerequisite: None. Duration: Semester. Credit: 0.5 English.

#337 Public Speaking: ♦
Regardless of our career choices, we all need to speak up in front of others in our daily lives. Wouldn't it be nice to develop the skills to face those moments with confidence? This course will expose students to a wide variety of strategies in speaking for a variety of purposes in order to face any audience with more confidence. By the end of the semester, successful students will have gained confidence and be well on their way to refining their newfound speaking and listening skills. Students will prepare, deliver and respond to a wide variety of speeches and write and revise a final speech for a performance in front of an audience of community members.
Prerequisite: None. Duration: Semester. Credit: 0.5 English.

BLUE HOUSE ENGLISH ADVANCED PLACEMENT COURSES

Colchester High School offers two Advanced Placement English courses: **'Language and Composition"** and **"Literature and Composition"**. Each course is a full-year introductory college course that prepares students for the respective advanced placement exams. Each exam offers students the opportunity to earn three college/university credits. Students enrolling in advanced placement English courses should have strong English skills, a love of language, and a willingness to work hard. Students in AP English will encounter a rigorous curriculum that requires tenacity and resourcefulness.

#387 Junior Year AP English: Language and Composition: ♦
AP English Language and Composition allows students to study the art of non-fiction writing while examining the rhetorical strategies used by diverse authors. To succeed in this course students must, to a high standard, study literature and write independently. Students will become skilled readers of (mostly non-fiction) prose written in a variety of periods, disciplines, and rhetorical contexts while becoming skilled writers who compose for a variety of purposes. Subjects for writing run from personal experiences to public policies and from historical literature to popular culture. Throughout the year, students will heighten their awareness of how stylistic effects are achieved by writers' linguistic choices, in addition to examining the forces which influence these choices themselves (i.e. ethnicity, gender, region, and era). We will also examine the way audience expectations, subjects, and linguistic conventions contribute to effectiveness in writing. While studying the work of prominent authors, students will hone their own authorial skills, refining and expanding upon the care with which they write. **NOTE**: Students enrolled in AP Language & Composition have the option to earn 4 credits of College Writing through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details.
Prerequisites: Successful completion of Green House humanities courses. Duration: Full Year. Credit: 1.0 English.

#382 Senior Year AP English: Literature and Composition: ♦
Advanced Placement Literature and Composition provides students the opportunity to read, write, think, and speak extensively and effectively about major works of imaginative literature written in English. This course's intent is to help students become strategic and empowered close-readers of a broad range of literary genres, skillful writers and speakers who can persuasively convey their understandings of text and its significance, and committed critical and creative thinkers who passionately pursue meaning in literature and life. Much of the course is focused on the complex relationships between storytelling, identity, and transformation. Students are asked to engage in consideration of how the ability to articulate, reflect on, and curate one's past experiences through language becomes a mode of self-empowerment and a source of rebirth or healing. **NOTE**: Students enrolled in AP Literature & Composition have the option to earn 4 credits of College Literary Studies through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details.
Prerequisites: Successful completion of Green House humanities courses. Duration: Full Year. Credit: 1.0 English.

Blue House Social Studies

Students must be enrolled in a social studies course for three of their four Blue House semesters, and earn a total of at least 1.5 social studies credits in the Blue House in order to graduate, totalling 3.5 social studies credits over 4 years.

The humanities Blue House social studies courses are designed to empower students to develop their individual interests related to the study of history and the social sciences. In order to fulfill this objective, students must enroll in some required courses, but are also encouraged to select from a variety of offerings based on their interests and readiness.

All juniors must enroll in either: **"The Human Experience: Legacies of the Past",** a full-year, concept-based, differentiated social studies course, OR an advanced placement social studies course.

Seniors must enroll in **"Seminar,"** a year-long interdisciplinary social studies AND English course. **"Seminar"** asks students to read, write, think about current community, social, and political issues and demonstrate their learning in a public event at the end of the school year. Students earn .5 social studies and .5 English credits for **"Seminar."**

All students will experience differentiated curriculums that are rigorous and relevant. Most courses embed individualized challenge opportunities within the traditional curriculum in the form of honors orbital projects and other enrichment activities. Students of high readiness who desire greater challenge than our traditional course offerings, however, may enroll in a variety of advanced placement courses in the humanities.

Junior Year Requirement

#402 The Human Experience: Legacies of the Past (Legacies): ♦

The Human Experience: Legacies of the Past is full-year, concept-based social studies course for juniors that investigates historical perspectives of issues from around the globe. Students will spend this year examining several major historical eras and events that help shape today's world. Students will make connections about social, economic and political aspects of our society and experiences as we examine events and places around the world. Topics will include the development and beliefs of major world religions, European revolutions such as the Renaissance and the Enlightenment, global imperialism, and times of extreme prejudice and violence such as the Holocaust. Students will use the concept of legacy to form perspectives about a past which continues to influence the modern world. This exploration will occur through primary sources, scholarly reading, class discussions, extensive research, and ongoing reflection on our thinking and learning.

Prerequisite: None. Duration: Full Year. Credit: 1.0 Social Studies. Required for all students not enrolled in AP History.

Senior Graduation Requirement

#471 Seminar: ✓

Seminar is the year-long culminating humanities course required for all twelfth graders at Colchester High School. In Seminar, students will engage in personal reflection, considering the factors that have shaped them in a personal essay. They will further examine how their perspectives influence how they view current events. Students will ultimately identify a pivotal issue relevant to themselves and society today and use that issue to design and execute an extended inquiry study. During the span of the year, students will practice the foundational skills needed to execute an extended inquiry study, create an inquiry plan and complete the research required to fulfill that plan. Students should expect to demonstrate skills essential to all learning -- critical reading and thinking, reflective and argumentative writing, and communication -- within the scope of their inquiry study.

Prerequisite: Required of all seniors for graduation. Duration: Full year. Credit: 0.5 Social Studies, 0.5 English.

Social Sciences

#475 Mountains and Minds: Exploring Your Purpose and Your Place

Have you ever wondered what the outdoors can teach you? Do you learn best by being active and problem solving? Do you seek adventure and exploration? In *Mountains and Minds* we use both the indoor and outdoor classrooms to challenge you to think about contemporary issues where you live and how you can be a part of the solution. You will regularly engage with the natural world, your peers, and media to reflect on questions like *what does leadership mean to me? How do individuals and groups function well to achieve personal and shared goals?* and *what defines and sustains a healthy community?* No matter where you're starting from, we'll help you build your confidence, work as a team, define and practice your leadership style so that you can positively impact your world. This course features two, day-long retreats where you will have extended opportunities to collaborate and work as a team, and reflect on your growth. At the end you will create an action plan to apply your learning in a community you belong to, such as a club, organization, sports team, student council, or other group. *Students enrolling in this course should expect to spend time in the outdoors.*

Prerequisite: None. Duration: Semester. Credit: 0.5 Social Studies.

#467 Studies in Genocide: ♦

This course will examine the concept of genocide critically and analytically to better understand how humans have perpetrated these atrocities. Case studies will be used to see these systems in action and to better understand how genocide is a human action, regardless of time and location. Special emphasis will be placed on the study of the Holocaust, with a focus on the historical roots and systems that led to the deaths of more than 6 million people. *This course was formerly called Holocaust Studies*.

Prerequisite: None. Duration: Semester. Credit: 0.5 Social Studies.

#465 Psychology: ♦

This course is designed to increase understanding of one's own personality and the conscious and unconscious factors that influence behavior. The course provides students with an introduction to the field of psychology. Units of study will address biopsychology, human development from infancy through adolescence and social psychology. Students will also explore strategies and tools to support their own mental health and wellbeing. Students will read extensively, engage in class discussions and complete an individual project or research paper. Students are expected to complete a Blue House writing to standard.

Prerequisite: None. Duration: Semester. Credit: 0.5 Social Studies.

#468 Philosophy: ♦
Philosophy is the seeking of answers to life's most basic questions, such as "Who am I?" or "What is true?" Myths and religions also answer these questions, but Western philosophy, beginning with the ancient Greeks, persists in using reason and logic to come by the answers to these fundamental problems. This course will begin with a brief history of philosophy and then study some of the writings of the Greek philosophers. From there, students will explore ideas related to the core areas of philosophy, including Metaphysics and Epistemology. Students will also be given space and time to explore relevant issues that interest them, through the lens of Philosophy. The readings in this course will be challenging, and students should be prepared to research, actively discuss, and write about philosophical questions and issues.
Prerequisite: None. Duration: Semester. Credit: 0.5 Social Studies.

#403 Modern US History through Film: ♦
This course explores the social and political history of modern day United States through the study of the movies and music that reflected the cultural ideals and realities of life in America. Students will critically examine modern US history through the lens of major cultural movements from the last half of the 20th century to the first decade of the 21st. US policies and philosophies impacting modern American life will be explored through films and music from specific decades throughout modern US history. Students will leave this course with a deeper understanding of modern life in the United States and how popular culture shapes and reflects historical life for Americans.
Prerequisite: None. Duration: Semester. Credit: 0.5 Social Studies.

BLUE HOUSE ADVANCED PLACEMENT COURSES

Colchester High School offers **"AP U.S. History," "AP U.S. Government & Politics,"** and **"AP Human Geography"**. Each is a full-year introductory college course that prepares students for the respective advanced placement exams. Each exam offers students the opportunity to earn three college/university credits.

Students must have strong reading and writing skills, a love of history, and a willingness to work hard. Students in AP social studies will encounter a rigorous curriculum that requires tenacity and resourcefulness. AP social studies courses are open to all students in grades 10-12 who possess academic and intellectual readiness.

#458 AP Human Geography: ♦
AP Human Geography is the study of human adaptation and innovation across place and time. Students will dive into cultures, practices, and lifestyles of populations around the world, with a focus on the present. We will determine how and why humans have developed such different ways to organize, work, eat and live in diverse geographic environments. This course will delve into everything from the way in which new cities are being planned, built, and transformed to how mountaintop communities sustain themselves agriculturally. It will also examine how societies and cultures interact through globalization, world economic markets, trade relationships, and more! ***This course is open to grades 10-12.***
Prerequisite: Successful completion of Ninth Grade humanities course. Duration: Full Year. Credit: 1.0 Social Studies.

#448 AP U.S. Government & Politics: ♦

This college-level course dives into the United States government and political system through the analysis and discussion of recent and upcoming elections, hot-button issues and happenings at the local, state, and national level, and civil rights and civil liberties that impact Americans across the country. We will analyze the current political divide in this country and examine the root causes and values that inform political ideologies. We will examine how political campaigns attract supporters and make evidence-based predictions about upcoming elections and Supreme Court cases. By making connections between the purpose and structure of the U.S. government upon its founding to the current interpretations of freedom of speech, religion, expression, etc, we can better understand and evaluate the U.S. government in its present form. **NOTE**: Students enrolled in AP U.S. Government & Politics have the option to earn 4 credits of Intro to American National Politics through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details. ***This course is open to grades 10-12.***

Prerequisite: Successful completion of Ninth Grade humanities course. Duration: Full Year. Credit: 1.0 Social Studies.

#462 AP U.S. History: ♦

Advanced Placement American History is designed to provide students with the analytical skills and factual knowledge necessary to deal with problems and issues in American history. The program prepares students for college level coursework by making demands upon them equivalent to an introductory college class. This course develops the skills necessary to arrive at conclusions on the basis of an informed judgment and to present ideas clearly and persuasively. ***This course is open to both 11th and 12th graders.***

Prerequisite: Successful completion of Green House humanities courses. Duration: Full Year. Credit: 1.0 Social Studies.

Mathematics

The CHS Math Department creates an environment that cultivates mathematical reasoning and meets students at their current level of understanding, so all learners can grow and develop their knowledge and skills. We do this by providing multiple opportunities for learning and by encouraging students to think flexibly and solve problems in a variety of ways. Our teaching methods stimulate curiosity, encourage persistence and incorporate technology. We encourage students to be self-sufficient learners who know when to use tools and resources as they model and analyze problems. CHS graduates will achieve a level of math literacy appropriate to any future path they choose.

Students are required to complete three and a half credits of mathematics including Algebra I and Geometry. Students are also strongly encouraged to continue their study of mathematics by taking Algebra II and Statistics. Most students transition from middle school into Algebra I at the high school. Upon entering high school, students who have successfully completed Algebra I at the middle school should choose Geometry at the high school. Middle school students who successfully complete Algebra I will be granted a total of one elective credit (pass) for the class upon entering the high school. All students, regardless of which math classes they completed at the middle school level, must complete three and a half credits of mathematics at the high school.

Math Discipline Proficiencies

- **Problem Solve:** The CHS graduate can persist in solving a problem independently by analyzing, making predictions, and using mathematical methods to develop a reasonable solution.
- **Model:** The CHS graduate can use mathematics to explore the relationships among quantities in context and use these relationships to draw conclusions.
- **Algebra & Functions:** The CHS graduate can create, interpret, use and analyze expressions, equations, inequalities, and functions in a variety of contexts.
- **Geometry:** The CHS graduate understands geometric concepts and constructions and can use them to prove theorems and to solve a variety of problems.
- **Statistics & Probability:** The CHS graduate can interpret and apply statistics and probability to analyze data, reach and justify conclusions, and make inferences.

#245 Algebra I: ♦

This course introduces students to mathematical concepts that serve as the foundation for future high school courses and beyond. Major topics include: solving and graphing equations and inequalities, analyzing functions, exploring features of quadratic and exponential equations, and solving and graphing systems of equations. Considerable emphasis is placed on the process of problem solving in order for students to build mathematical meaning and draw connections between concepts.

Prerequisite: Open to Grades 9-10. Duration: Full Year. Credit: 1.0 Math.

#260 Geometry: ♦

This course is the study of Euclidean Geometry using an investigative approach. Through these investigations students will define geometric terms and discover conjectures about geometric figures. Major topics covered include: similarity and congruence of figures, circles, solids, and an introduction to trigonometry. The use of technology, proof, and problem solving are used regularly to help students visualize and explore these geometric concepts.

Prerequisite: Overall evidence of exceeding or achieving on Algebra proficiencies or B- in Algebra I. Duration: Full Year. Credit: 1.0 Math

#264 Statistics: ♦

This course will provide an introduction to the principles of statistics. Emphasis will be placed on students' ability to interpret and apply statistical concepts and reason with statistics. Topics will include describing data, the normal distribution, linear regression, sampling strategies and experimental design. Students will apply these basic statistical principles while solving a variety of problems.

Prerequisite: Passing grade in Algebra I. Duration: Semester. Credit: 0.5 Math.

#255 Algebra II in Depth: ♦

This course continues students' study of Algebra by going more in depth on concepts including solving linear, quadratic, and higher order polynomial equations. Other topics include probability, exponents and logarithms, and a study of functions and their transformations. Emphasis is placed on the process of problem solving to draw connections between concepts. Technology is used extensively in order to view, analyze, and solve problems.

Prerequisite: C- in Algebra I and Geometry or teacher recommendation. Duration: Full Year, Every other day. Credit: 1.0 Math.

#290 Algebra III: ✓

This course is designed for students who wish to continue their study of mathematics beyond Algebra II, but may not be quite ready or have an interest in Precalculus. The course prepares students for college-level mathematics by reviewing the fundamental concepts of algebra. The course will enhance skills developed in Algebra II through a more in-depth study of those concepts as well as explore some Precalculus concepts at an introductory level. Students in Algebra III will be challenged to increase their understanding of algebraic, graphical and numerical methods as they analyze, solve, and manipulate linear, quadratic, exponential, and logarithmic functions.

Prerequisite: Passing grade in Algebra II in Depth. Duration: Semester. Credit: 0.5 Math

#279 Pre-Calculus: ♦
This course is designed to prepare students for Calculus. Topics of study include an expansion on function analysis, applications of trigonometric functions, rational functions, conic sections, and matrices and vectors. Combining analytic geometry with the concepts of algebra and functions, students develop a stronger dialogue between algebra and geometry, allowing each to illuminate and extend the other. Technology is used extensively in order to view, analyze, and solve problems.
Prerequisite: B or better in Algebra II in Depth; and teacher recommendation; B or better in Algebra III and teacher recommendation. Duration: Full Year. Credit: 1.0 Math.

#248 Algebra Extended:
This course is intended to extend students' knowledge and skills in Algebra I as well as to introduce them to the foundations of Algebra II. In this class students will review and deepen their knowledge in the areas of linear equations, exponential and quadratic functions, systems of equations, and analyzing functions. This course will regularly employ differentiated instruction and will meet students where they are in order to grow their math ability and confidence.
Prerequisite: Grade 11-12 students, completion of Algebra I, and teacher recommendation. Duration: Semester Credit: 0.5 Math.

#224 Consumer Math:
This is a semester course designed to help students learn how to best handle their personal finances. Areas of study will include earning money, personal banking, creating a budget, consumer credit, insurance and investing. All students can benefit from this course to become better prepared citizens.
Prerequisite: Grade 11-12 students. Duration: Semester. Credit: 0.5 Math.

#227 Math of Sports: ♦
Are you interested in sports? The Math of Sports will look at sports through a statistical lens to help students gain a better understanding of the games they love. In this course, you will learn to use mathematical tools that can help predict and analyze sporting performances and outcomes. Major topics studied will include design of sporting statistics, predicting performance using linear regression, general probability and hypothesis testing using confidence intervals.
Prerequisite: Passing grade in Algebra I. Duration: Semester. Credit: 0.5 Math.

#240 Number Theory: ♦
In this course, students will extend their knowledge of a base ten number system. Students will learn the importance of "number play" and explore patterns and other number systems in a way that expands on the content they are learning from the Common Core Standards. Possible topics will include: number systems in other bases, modular arithmetic, cryptography applications, divisibility, matrices: operations and applications, systems of nonlinear equations, vectors, and/or polar coordinates.
Prerequisite: B or better in Algebra and Geometry, concurrent enrollment or successful completion of Algebra II, and teacher recommendation. Duration: Semester. Credit: 0.5 Math.

#203 Strategic Algebra:
This course is available to ninth grade students enrolled in Algebra I. This course gives students an elective credit and is designed for those students who may find they need more time and opportunities to master algebra concepts and skills. Since it is taken concurrently with Algebra I, the skills and concepts taught in this course relate to those being taught in the Algebra I course. This course is adapted to the pace of each individual learner. Enrollment is by recommendation only.
Prerequisite: Teacher and school counselor recommendation. Duration: Full Year. Credit: 1.0 Elective. Algebra enrolled students.

#261 Strategic Geometry:
This course is available to tenth grade students enrolled in Geometry. This course gives students an elective credit and is designed for those students who may find that they need more time and opportunities to master the geometry concepts and skills. Since it is taken concurrently with Geometry, the skills and concepts taught in this course relate to those being taught in the Geometry course. This course is adapted to the pace of each individual learner. Enrollment is by recommendation only.
Prerequisite: Teacher and school counselor recommendation. Duration: Full Year. Credit: 1.0 Elective. Geometry enrolled students.

#242 Math Prep: This course is available to all blue house students who find they need more time and opportunity to master math concepts and skills covered in their other math courses. Since it is taken concurrently with another math course, there will be time given to strengthen and re-learn topics covered in those courses. In addition, a standardized test preparation portion of this course is designed to familiarize and better prepare students for the mathematics portions of the ACT and SAT. Students will learn test taking strategies, discover their own areas of mathematical content strengths and weaknesses, review and re-learn content covered on the assessments, and practice using technology allowed on the tests.
Prerequisite: Concurrent enrollment in Algebra II, Algebra Extended, Algebra III, Pre-Calculus, AP Statistics or Consumer Math. Enrollment will be prioritized by teacher recommendation. Duration: Semester. Credit: 0.5 Elective.

#204 Math Mentoring:
Math Mentors work as teachers' aides in Strategic Math classes. Students in Strategic Math classes receive additional support in the area of mathematics beyond their regular math course. Math Mentors work one-on-one as well as with small groups of students, assist students with math homework, review basic math concepts, assist with math review software, or re-teach Algebra and/or Geometry concepts. As a Math Mentor, it is important that you are comfortable with basic number, computation, Algebra I and Geometry skills. Math Mentors will occasionally meet with the Strategic Math teacher outside of class time to discuss class, learn effective mentoring strategies, and check in about roles and responsibilities. You must complete an application to be a Math Mentor.
Prerequisite: Grade 11-12 students. Duration: Full Year or Semester. Credit: 1.0 Elective, 0.5 Elective, or earn Community Service hours in lieu of credit.

BLUE HOUSE ADVANCED PLACEMENT COURSES

#280 AP Calculus: ♦
The four main concepts covered in this college level calculus course are derivatives, limits, definite integrals, and indefinite integrals. All topics are looked at graphically, numerically, algebraically, and verbally. Graphing calculators are used daily as a technique for solving problems as well as to help students better visualize the concepts of Calculus.
Prerequisite: Teacher recommendation and B+ or better in Precalculus. Duration: Full Year. Credit: 1.0 Math.

#283 AP Statistics: ♦
The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Graphing calculators are used daily as a technique for solving problems as well as to help students better visualize the concepts of Statistics.
NOTE: Students enrolled in AP Statistics have the option to earn 4 credits of Elementary Statistics through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details.
Prerequisite: Juniors and Seniors who have successfully completed Algebra II or equivalent and teacher recommendation. Duration: Full Year. Credit: 1.0 Math.

Science

The CHS Science Department cultivates an environment that fosters lifelong intellectual curiosity and enables students to become scientifically literate citizens. This is achieved through a variety of interconnected, rigorous and authentic learning experiences in which students model concepts, investigate questions, analyze data and evidence, problem solve and communicate findings. Through their science experience students employ and hone lifelong learning habits to achieve proficiency in these skills across science disciplines.

The Science Department provides students with the necessary rigorous coursework for admittance to colleges and universities. The curriculum also provides scientific experiences for the work-ready student. ***Note: For students with a high interest in science, we are prepared to develop a four-year plan upon request. Please contact a school counselor or the science team leader for more information.***

For graduation, students are required to complete three and a half credits in science including Earth Systems Science, Biology, and one full year of physical science (Chemistry or Physics). *We highly encourage students seeking to go on to a competitive college or who desire to pursue a science, medical, or engineering field in college take both Chemistry and Physics.*

Science Discipline Proficiencies

- **Modeling:** The CHS graduate can construct, interpret and analyze models and systems to build understanding and test ideas across science disciplines.
- **Analyzing:** The CHS graduate can critically analyze information from a number of sources (written, graphical, verbal) to draw scientifically valid conclusions across science disciplines.
- **Communicating Scientifically:** The CHS graduate can effectively communicate scientifically valid evidence in a number of ways (written, graphically, verbally) to support an argument across science disciplines.
- **Investigating:** The CHS graduate can design, implement, and refine scientific investigations across science disciplines.
- **Engineering Solutions:** The CHS graduate can design, implement, and refine engineering solutions across science disciplines.
- **Connecting:** The CHS graduate can identify, describe and explain interrelationships and connections among science disciplines, technology, and society.

#110 Earth Systems Science: ♦
This course is designed to serve as an introduction to earth and environmental science. Students will explore the science of our Earth and the role that humans play in shaping the natural world through the following units of study: Earth history, structure and plate tectonics; properties of water, weathering, erosion, and river formation; and climate change. The primary goals of this course are to increase scientific literacy, develop students' abilities to obtain and apply scientific skills and knowledge to real-life situations, and explore the naturally occurring and human-influenced changes taking place in our natural world. All students will be challenged by a common hands-on, inquiry-based curriculum that is differentiated by content, process, or product according to students' different readiness levels, interests, and learning styles. ESS is a heterogeneous class: students will be grouped with intention so that each class includes the diverse range of students present in the entire freshman class. **Prerequisite: None. Duration: Full Year. Credit: 1.0 Science.**

#130 Biology: ♦

In this college preparatory lab-based course students will explore several major biological themes in depth while focusing on a few unifying concepts. Topics learned include: ecology, cellular basis of life, homeostasis, genetics and inheritance, and biological evolution. Students will engage in lab based experiments, hands-on activities, outdoor investigations, independent and group work, and use visuals, manipulative models, texts, and other media to learn about and explore biology. During the course of the year students will hone their scientific inquiry and analysis skills.

Prerequisite: None. Duration: Full Year. Credit: 1.0 Science.

#135 Experimental Biology: ♦

This college preparatory lab-based course is designed for students who plan to attend a four-year college and who have a strong interest in pursuing a career in a scientific field. It approaches biology from a human perspective and will challenge and expand a student's work ethic. The topics covered in-depth are evolution, homeostasis, energy and matter in organisms, reproduction, inheritance and development, and ecology. The goals of the course also include learning some of what the life of a scientist is like and making connections between biological concepts and everyday life. Various in-depth research/presentation projects are completed throughout the year. Successful completion of the course should leave the student with a sense of academic confidence about studying independently and applying scientific and biological concepts to their life.

Prerequisite: Teacher recommendation (8th grade) and 9th grade enrollment in Geometry Duration: Full Year. Credit: 1.0 Science.

#145 Lab Chemistry: ♦

This college preparatory lab-based course is structured around building an understanding of the basic concepts of chemistry. Students investigate these concepts in a variety of contexts including problem solving, projects, direct instruction, classroom discussions, and laboratory activities. Students are expected to be familiar with and able to use algebraic and mathematical skills as they relate to abstract chemical concepts. Topics covered in this course include the nature of matter and the periodic table, atomic theory, chemical nomenclature, gas behavior, chemical reactions, and stoichiometry. Laboratory work, performed frequently, is essential to the development of in-depth understanding. Computer software applications, online simulations and electronic data collection are used at various times throughout the year.

Prerequisite: Blue House: None. Green House: C or better in Experimental Biology or Earth Systems Science AND in Algebra I. Duration: Full Year. Credit: 1.0 Science.

#150 Experimental Chemistry: ♦

This college preparatory, lab-based course is designed for students who plan to attend a four-year college and who have a strong interest in pursuing a career in a scientific field. Students are expected to have strong math skills, as this is an integral part of a good science background. Exemplary learning dispositions are key to success. The course includes extensive laboratory work and individual research on chemistry-related societal issues. Students will be using a variety of technological applications throughout the year. Students should expect to gain deeper understanding of that matter that makes up our world and how the chemical reactions that make and change that matter occur.

Prerequisite: B or better in Biology or Earth Systems Science, B or better in Algebra I, concurrent or previous enrollment in an Algebra II course, AND teacher recommendation. Duration: Full Year. Credit: 1.0 Science.

#161 Action Physics: ♦

Action Physics is a concept-based course for those students who are curious about the world (and the universe) around them. Topics such as motion, force, momentum, and energy will be explored through a hands-on project and lab based approach . The mechanics of simple machines, properties of matter, basic astronomy and gravity, will also be examined and discussed. Mathematical models of physics concepts will be limited to basic Algebra unless student readiness allows for the use of more advanced functions. The use of technology is embedded in laboratory content where electronic sensors are used to collect and analyze data.

Prerequisite: Passing grade in Algebra I (10th grade) or 11th/12th grade.. Duration: Full Year. Credit: 1.0 Science.

#160 Principles of Physics: ♦

Physics is the study of matter and energy and the interrelationship between the two. This course is a challenging, trigonometry-based introduction to mechanics designed for students who will be attending college. The use of computers and graphing applications in physics is reinforced through their application in the areas of simulation, data and graphical analysis, and digital video analysis. Students will design experiments, use sensors to collect data, and compete in engineering challenges. This course is a required prerequisite for students who wish to take the calculus-based AP Physics course.

Prerequisite: Previous or concurrent enrollment in Geometry course. Students should be taking a math course concurrently with Physics. Duration: Full Year. Credit: 1.0 Science.

Science Electives

#112 Anatomy and Physiology: ♦

If you had to live without one body system, which would you choose? The circulatory, respiratory, nervous, musculoskeletal system? Or would you choose the endocrine or reproductive system? Can't decide? Consider taking Anatomy & Physiology where students have an opportunity to discover how these systems interact and work together to maintain balance in the human body. Throughout this one semester course, students will explore the structure and function of human cells, tissues, and organ systems as well as the complications that occur when these systems fail. *This course is offered annually, but will only be taught as enrollment and staffing allow.*

Prerequisite: GreenHouse: B or better in Earth Systems Science. Blue House: Completion of Earth Systems Science and Biology. Duration: Semester. Credit: 0.5 Science.

#115 Breaking into Coding: ♦

We all know that electronic devices run by software surround us. Phones, tablets, and laptops immediately jump to mind. If one thinks a little further, vehicles, robots, and things like air traffic control probably also surface. With many of the "things," both seen and unseen, in our lives becoming increasingly software controlled, the opportunities for people with knowledge of computer science and coding are exploding. This course aims to introduce and give students chances to practice some of the fundamental attitudes, skills and knowledge connected with computer science. Students will be coding (writing computer language) for a variety of purposes. Some will be solely computer-based while others will physically interact (input and output) with the real world. Students will work individually and collaboratively throughout the semester. *This course is offered annually, but will only be taught as enrollment and staffing allow.*

Prerequisite: Successful completion of Algebra I. Duration: Semester. Credit: 0.5 Science.

#117 Forensic Science:

Just how "real" is CSI? Are holograms really used to examine skeletons? Can crimes be solved in an hour? The field of forensic science applies the essential processes of science to the resolution of criminal matters. This course offers students an opportunity to apply science skills to solve "real world" mysteries. This course explores the collection and analysis of hair, fiber, fingerprints, blood spatter, DNA, bones, and other evidence. Laboratory work utilizing skills and knowledge from chemistry, biology, physics, and math comprises a large portion of the course. *This course is offered annually, but will only be taught as enrollment and staffing allow.*

Prerequisite: GreenHouse: B or better in Earth Systems Science. Blue House: Completion of Earth Systems Science and Biology. Duration: Semester. Credit: 0.5 Science.

#114 Engineering Lab: ♦
Engineering Lab enables students to apply their skills and knowledge in the area of research and development while using the engineering design process to develop solutions to problems. Students will be involved in basic design procedures and the development and construction of original ideas. The course includes the use of 3D design using CAD software and the use of 3D printed objects in design/build projects. Brainstorming in groups and on an individual basis will be oriented toward the development of solutions to problems. *This course is offered annually, but will only be taught as enrollment and staffing allow.*
Prerequisite: Any physics course taken previously or concurrently. Duration: Semester. Credit: 0.5 Science.

#118 Science of Survival: ♦
If you got lost in the wilderness with minimal supplies, how long would you last? Would you know what to do? Would you know how to make a shelter, a fire, or navigate out? The Science of Survival course will teach you basic skills needed if you are ever put in this situation. Science topics embedded in this class include engineering, biology, and physics. By understanding these embedded topics, students will use the engineering process to design and build shelters and create fire multiple ways, learn basic first-aid, plant and animal identification, understand what to pack
before heading out into the wilderness, and basic navigation techniques. Students who enroll in this one semester course are expected to have an affinity with the outdoors because this class will often be held outside the classroom in the woods behind CHS. Skills will be assessed through hands-on demonstrations and a large culminating activity at the end of the semester. *This course is offered annually, but will only be taught as enrollment and staffing allow.*
Prerequisites: Open to Grades 9-10 (Green House). Duration: Semester. Credit: 0.5 Science.

BLUE HOUSE ADVANCED PLACEMENT COURSES

#175 AP Biology: ♦
This course is built around the College Board Advanced Placement Biology Curriculum Framework. This approach involves exploring four *Big Ideas of Biology* and the connections between them. Integrated into the experience are important *Science Practices* and *21st Century Skills*. Though the emphasis is on concept application, the course content is still extremely rigorous and success requires extensive time outside of class. In addition to reading most of a college biology textbook, students will design, perform, and write up or present numerous experiments and labs, do field work, and undertake a variety of in-depth activities to enhance their learning. Students will have the option of an internship/job shadow experience or self-design investigation following the AP exam to explore applications of their learning from the course. A presentation on this experience takes the place of a written **final exam**, but there is a **two day, comprehensive mid-term** exam modeled on the AP test. The instructor will meet with students in June prior to the start of the course to discuss summer work. *This course is offered annually, but will only be taught as enrollment and staffing allow.*
Prerequisite: B or better in Biology, concurrent enrollment in or successful completion of Lab Chemistry or Experimental Chemistry, and teacher recommendation. Duration: Full Year - Meets EVERY day for the entire year. Credit: 2.0 Science.

#152 AP Chemistry: ♦

Advanced Placement Chemistry is designed as a second-year deep dive in the subject for students with a keen mind and a strong drive to excel in the field of science or math. This course will cover each of the major topics covered in a college chemistry class including: atomic structure, chemical bonding, stoichiometry, gas behavior + equilibrium, energy of reactions + chemical kinetics, acid/base chemistry, equilibrium, and electrochemistry. This course will also include each of the 22 laboratory experiments required by the College Board. Students should anticipate extensive time and effort both in and out of class, but it is well worth the experience. The instructor will meet with students in June prior to the start of the course to discuss summer work. The course is designed to prepare students for the optional AP examination given in May. *This course is offered annually, but will only be taught as enrollment and staffing allow.* **NOTE**: Students enrolled in AP Chemistry have the option to earn 4 credits of General Chemistry through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details.

Prerequisite: B or better in Experimental Chemistry OR A- or better in Lab Chemistry; College Algebra OR Pre-Calculus (math prerequisite may be taken concurrently); and teacher recommendation. Duration: Full Year - Meets EVERY day for the entire year. Credit: 2.0 Science.

#174 AP Environmental Science: ♦

The AP Environmental course will provide students with the scientific principles, concepts and methodologies required to understand the 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. Environmental Science is interdisciplinary and will include topics in Earth Science and Biology. Specifically, content and labs will address: Earth Systems and Resources, The Living World, Population, Land Use and Water Use, Energy Resources and Consumption, Pollution, and Global Change. A variety of teaching techniques will be employed, including lab, lecture, discussion, movies, and data-driven field trips. This class will prepare students for the AP examination given in May. The instructor will meet with students in June prior to the start of the course to discuss summer work. *This course is offered annually, but will only be taught as enrollment and staffing allow.* **NOTE**: Students enrolled in AP Environmental Science have the option to earn 4 credits of Environmental Science through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details.

Prerequisite: B or better in ESS, Biology, AND Algebra I AND teacher recommendation. Duration: Full Year - Meets EVERY OTHER day for the entire year. Credit: 1.0 Science.

#163 AP Physics: ♦

This course meets the College Board standards for Calculus-based mechanics and is designed to prepare the students for the AP Mechanics C exam. This course is designed to meet the needs of students who have achieved a high level of success in mathematics and science. Students will conduct experiments to study physical phenomena and research techniques will play a major role in the course. Particular emphasis will be placed on the use of computer simulation and digital video analysis software to model physics problems. Applications of technology are embedded in the curriculum; students will use probes and sensors to collect data and graphical analysis software to develop visual displays of information. Students will be expected to attend AT (Mod 2) once per week for problem solving support or content extension. The instructor will meet with students in June prior to the start of the course to discuss summer work. *This course is offered annually, but will only be taught as enrollment and staffing allow.*

Prerequisite: Principles of Physics, Calculus. (Calculus may be taken concurrently with AP Physics). Duration: Full Year - Meets EVERY OTHER day for the entire year. Credit: 1.0 Science.

Support Services

Colchester students are served through a variety of ways to support their academic, social and emotional growth. Some of the services and programs that are available for students are:

- ELL - for English Language Learner students requiring additional language supports.
- 504 - for identified students who are diagnosed with a disability and need accommodation as part of their school day.
- EST - for identified students requiring additional educational supports as part of their school day.
- Special Education - for identified students who are diagnosed with a disability and demonstrate a need for specialized instruction around basic skill areas and/or areas with adverse effect.
- School-Based Clinicians -provided to students who are in need of family or social and emotional supports. Enrollment determined by teacher recommendation.
- Speech - 1:1, small group or large group instruction and supports around identified Speech & Language needs.
- Crossroads - School program which provides instruction and support for students identified with an intellectual disability. Instruction is focused on the acquisition of life and transitional skills. Enrollment determined by team recommendation.
- CAP - Colchester Alternative Program designed to support the instructional needs of students needing a smaller environment. Enrollment determined by need, application and teacher recommendation.

Additionally, there are some course offerings available to students within support services. Student enrollment within these courses is based on data collected, team discussions/decisions and teacher recommendations.

 # 55/57 Direct Instruction:
This course is designed to provide students with specialized instruction around identified academic, basic skill and/or behavioral needs. This course is taught by a special educator. This course is broken into two major parts:

1) specialized small group or individual instruction around identified academic, basic skill and/or behavioral needs.
2) additional in-class time and supports to complete homework.

Prerequisite: Open to identified students in Grades 9-12 (with teacher recommendation). Duration: Full Year. Credit: 0.5 Elective.

#56 Supported Study:
This course is designed to provide students with academic and homework supports in a smaller group setting. The structure of this class is similar to a study hall with additional scaffolded supports in place. Some student supports found as part of this class are: small class size, more frequent teacher check-ins, instruction around organization and executive functioning. A large portion of this course is designated to provide additional in-class time and supports to complete homework.
Prerequisite: Open to identified students in Grades 9-12 (with teacher recommendation). Duration: Full Year. Credit: 0.

 # 929 Strategic Study:
This course is designed to provide students with a structured setting to gain the skills they need in order to be a successful learner in, and beyond, high school. They will work to develop skills such as collaboration, self-advocacy, organization, time management, and goal-setting. Students will also work to develop awareness and responsibility for their learning style, needs, and strengths, and will be taught to access supports and resources to help them overcome obstacles and gain independence.
Prerequisite: Open to identified students in Grades 9-12 (with teacher recommendation). Duration: Full Year. Credit: 0.5 Elective.

 # 995 English Language Learners (ELL):
Multilingual learners are provided with support in learning the English language. The instruction focuses on basic interpersonal communication skills (BICS) and Cognitive Academic Language Proficiency(CALPS). Academic language is characterized by being abstract, context reduced, and specialized. Multilingual learners develop key language uses: Narrate, Inform, Explain and Argue. The course implements the WIDA English Language Development Standards Framework. Multilingual learners are assessed annually with ACCESS for ELS 2.0 standardized testing to measure growth in reading, listening, speaking and writing. A composite score of 5.0 is required to move to monitoring status.
Prerequisite: None. Duration: Full Year. Credit: 1.0. Up to 2.0 credits of English

#995n Newcomer (ELL):
Newly arrived refugee and immigrant students and learners who are achieving a composite score of 2.5 or lower receive intensive English language instruction. Multilingual learners are provided with assistance in navigating their content area classes through the use of multimodality. In addition to written and spoken communication, students also communicate and access content through gestures, facial expressions, images, equations, maps, symbols, diagrams, charts, videos, graphs, computer-mediated content, and other means. The course implements the WIDA English Language Development Standards Framework. Multilingual learners are assessed annually with ACCESS for ELS 2.0 standardized testing to measure growth in reading, listening, speaking and writing. A composite score of 5.0 is required to move to monitoring status.
Prerequisite: None. Duration: Full Year. Credit: 1.0. Up to 2.0 credits of English

World Languages

World Language Discipline Proficiencies

- **Presentational Communication:** The CHS graduate can engage in meaningful one-way communication (speaking and writing) to inform, explain, persuade and/or narrate to an intended audience on a range of content and contexts.
- **Interpretive Communication:** The CHS graduate can interpret meaning and cultural perspective through reading, listening and viewing a variety of authentic materials.
- **Interpersonal Communication:** The CHS graduate can participate in conversations on familiar topics, using sentences and/or series of sentences in appropriate time frames, as well as handle social interactions and everyday tasks by asking and answering a variety of questions.
- **Language Fundamentals:** The CHS graduate can recognize and make use of thematic vocabulary and grammatical conventions of increasing complexity as they communicate with the various modes and advance through the levels of language learning.
- **Intercultural Competence:** The CHS graduate can investigate and interact with empathy and an awareness of the perspectives of self and others while recognizing the factors that influence who people are and how they communicate.

#530 Introduction to Arabic Part 1: ♦

أهلاً بكم! (Ahlan Bikom!) Welcome! Part 1 of this course lays the groundwork for Arabic language proficiency, focusing on the initial phase of alphabet learning. Students will delve into the basics of phonology and script, mastering the first portion of the Arabic alphabet. Students will be able to use simple daily expressions during classroom interactions, and conversations with the instructor. Practical exercises aligned with world language learning standards guide students in building essential vocabulary and fundamental structures around Communication, Cultures, Connections, Comparisons and Communities. The course also introduces cultural elements such as cooking, music, dance, and audio-visual resources, setting the stage for a dynamic and comprehensive exploration of the Arabic language and culture.

This course will be offered as enrollment and staffing allow.

Prerequisite: None. Duration: Semester. Credit: 0.5 Elective

#531 Introduction to Arabic Part 2: ♦

مرحبا! (Marhaba) Hello!

Continuing the linguistic and cultural journey, Part 2 builds on the foundation laid in Part 1. Alphabet learning progresses to its second half, ensuring a thorough grasp of the Arabic script, letter connections, and dictation. Concurrently, cultural exploration deepens, incorporating more aspects of music, dance, additional audio-visual resources, and culture exploration and connections. Students will continue to expand their repertoire of simple daily expressions, applying them actively during classroom interactions and conversations with the instructor. Online cultural tours offer insights into the history, traditions, and cuisine of Arabic-speaking countries. Practical application remains a focal point, complemented by occasional cooking in our school kitchen. It's important to note that this course seamlessly integrates content from Part 1, creating a holistic and progressive learning experience. *This course will be offered as enrollment and staffing allow.*

Prerequisite: Intro to Arabic Part 1. Duration: Semester. Credit: 0.5 Elective

French

#500 French I: ♦

Students will practice communicating in French in practical, real-life situations as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities. They will develop their listening, speaking, reading, and writing skills through functional and proficiency based activities. Students will learn to understand and use the structures of the language necessary for basic communication. They will become familiar with French culture and customs from around the world. Music, audio-visual and print materials will support the curriculum.

Prerequisite: None. Duration: Full Year. Credit: 1.0 Elective. ***Note: One credit may be granted for Developing or better (development toward proficiency) in level one World Language at CMS.***

#505 French II: ♦

Students will continue language study in the five areas as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities. They will continue to develop their listening, speaking, reading, and writing skills begun in French I. They will become more proficient in spontaneous use of the language and will continue to make real-life and functional applications. Music, audio-visual, and print materials will support the curriculum. Students will become more familiar with the cultures of France, Québec and other francophone countries or regions.

Prerequisite: C or better (or the equivalent to development toward proficiency at CMS) in French I and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

#515 French III: ♦
This course will continue language study in the five areas as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities to further develop the listening, speaking, reading and writing skills of the previous level. Students will become more proficient in the use of the language and more familiar with the French culture of France (Europe), Canada and the Francophone countries of Africa. Students will further develop the functional skills necessary to use the language for work, travel and personal goals. Music, audio-visual and print materials will support the curriculum.
Prerequisite: C or better (equivalent to development toward proficiency) in French II and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

#520 French IV: ♦
In this course, students will build upon their prior communication skills as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities) New vocabulary and grammar will be presented through thematic units of study (daily life, travel, health, and relationships). Students will also use the French language to explore some aspects of contemporary culture, history and the arts of the francophone world . Music, audiovisual and print materials will support the curriculum and highlight connections between French speakers and the greater community.
Prerequisite: Commitment to speaking French is essential. C or better (equivalent to development toward proficiency) in French III and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

#519 French V: ♦
In this course, students will use authentic and current French materials to develop language skills in multiple modes of communication, including interactions in writing and speaking, interpretation of audiovisual and print materials, and oral and written presentation of information and ideas. The AP College Board suggested themes of Beauty and Aesthetics, Contemporary Life, Families and Communities, Global Challenges, Personal and Public Identities, and Science and Technology will facilitate the integration of language, content and culture and promote the use of higher level French in a variety of interdisciplinary contexts. Students may choose to take the AP French Language and Culture exam in May, but it is not a requirement. *This course is not offered annually. It will be offered as enrollment and staffing allow.* **NOTE**: Students enrolled in French V have the option to earn 4 credits of FR 102 through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details.
Prerequisite: A commitment to the use of French is essential. B or better (equivalent to achieving proficiency) in French 4 and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

Spanish

#545 Viva! Exploring Cultures of the Spanish Speaking World (in English):
Taught in English, this course will provide an opportunity to explore and interact with the rich cultures of the Spanish-speaking world. Themes include food, art, music, sports, education, politics, current events, social issues, customs, and traditions. Where appropriate students will connect with organizations in Vermont that work directly with Hispanic/Latino people in VT and in their home countries. Students will be asked to reflect on elements of their own culture while drawing comparisons to cultures in other parts of the world. Students will gain perspective and be asked to think critically through a lens that is different from their own using modern, authentic materials that are relevant to their daily lives. *This course is not offered annually. It will be offered as enrollment and staffing allow.*
Prerequisite: None. Duration: Semester. Credit: 0.5 Elective

#525 Spanish I: ♦

Students will practice communicating in Spanish in practical, real-life situations as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities. They will develop their listening, speaking, reading, and writing skills through functional and proficiency based activities. Students will learn to understand and manipulate the structures of the language necessary for basic communication. They will receive an overview of Hispanic culture and customs. Music, audio-visual, and print materials will support the curriculum.
Prerequisite: None. Duration: Full Year. Credit: 1.0 Elective. ***One credit may be granted for Developing or better (development toward proficiency) in level one World Language at CMS.***

#532 Spanish II: ♦
Students will continue language study in the five areas as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities. They will continue to develop their listening, speaking, reading, and writing skills begun in Spanish I. They will become more proficient in spontaneous use of the language and will continue to make real-life and functional applications. Music, audio-visual and print materials will support the curriculum. Students will study the cultures of the Spanish-speaking world as well as the role of Latino customs and peoples in the United States.
Prerequisite: C or better (or the equivalent to development toward proficiency at CMS) in Spanish I and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

#535 Spanish III: ♦
This course will continue language study in the five areas as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities to further develop the listening, speaking, reading and writing skills of the previous level. Students will become more proficient in the use of the language and more familiar with Latino culture in the Spanish-speaking world and the United States. Students will further develop the functional skills necessary to use the language for work, travel and personal goals. Emphasis is on understanding and communicating in Spanish in a variety of authentic situations. Music, audio-visual, and print materials will support the curriculum.
Prerequisite: C or better (equivalent to development toward proficiency) in Spanish II and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

#537 Spanish IV: ♦
In this course, students will build upon their prior communication skills and knowledge of grammar through thematic units of study as outlined by the course proficiencies and the standards for world language learning: Communication, Cultures, Connections, Comparisons and Communities. Students will use the Spanish language to explore aspects of contemporary culture, history, and the arts of the Spanish-speaking world. Music, audio-visual and print materials will support the curriculum and highlight connections between Spanish speakers and the greater community.
Prerequisite: Commitment to speaking Spanish is essential. C or better (equivalent to development toward proficiency) in Spanish III and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

#542 Spanish V: ♦
In this course, students use authentic and current materials in Spanish to develop language skills in multiple modes of communication, including interactions in writing and speaking, interpretation of audiovisual and print materials, and oral and written presentation of information and ideas. The AP College Board suggested themes of Beauty and Aesthetics, Contemporary Life, Families and Communities, Global Challenges, Personal and Public Identities, Science and Technology will facilitate the integration of language, content and culture and promote the use of higher level Spanish in a variety of interdisciplinary contexts Students may choose to take the AP Spanish Language and Culture exam in May, but it is not a requirement. *This course is not offered annually. It will be offered as enrollment and staffing allow.* **NOTE**: Students enrolled in Spanish V have the option to earn 4 credits of SP 102 through Saint Michael's College via the VT Dual Enrollment Program. Interested students should see their school counselor for details.
Pre-requisites: A commitment to the use of Spanish is essential. B (equivalent to achieving proficiency) or better in Spanish 4 and/or teacher recommendation. Duration: Full Year. Credit: 1.0 Elective.

Additional Academic Opportunities

 # 990a Andros Adventure:
A bi-annual research trip of a lifetime to The Forfar Research Station on Andros Island in the Bahamas. Students have the opportunity to complete original research in a field of their choosing while earning 0.5 elective credits at CHS. The trip is open to students in the 11th and 12th grades though students apply in the spring of the year before as 10th and 11th graders, so plan ahead if you are interested!
Prerequisite: Completed Application (Spring of the year prior), successful completion of Green House Sciences. Duration: April Break. Credit: 0.5 Elective.

#364 Extended Learning:
Extended Learning is a semester course in which students explore a question or topic about which they are very passionate while honing research and inquiry skills. Students will regularly reflect on their process, write a research paper, create an annotated bibliography, and connect with local experts in their chosen field of study. The main focus of the class, however, will be creating a self-designed final product guided by their research question, which they will share with an authentic audience. *Extended Learning* is a great opportunity for students to design their own goals and become self-directed, expert learners. Learning is guided by student interest.
Prerequisite: Successful completion of GreenHouse humanities classes. Duration: Semester. Credit: 0.5 Elective.

#582 TIPS (Training Internships Partnering for Success):
This course engages students in essential pre-employment skills such as effective communication, resume writing, and interview practice, as well as career and education planning. Additionally, all students will be expected to apply these skills and understandings directly to a workplace experience during the internship & field study portion of the course. The expected outcome is increased skills and solid work-place experience, both of which enhance a student's potential for college admittance and/or paid employment. Students who elect to take this course must be highly self-motivated, be willing to critically evaluate themselves, and be willing to take calculated risks. Students will earn .5 elective credit upon successful completion of the course and internship/field study experience.
Prerequisite: Grades 11-12. Duration: Semester. Credit: 0.5 Elective.

#653 Yearbook Publishing:
Students enrolled in this course are involved in all aspects of the production, sale and distribution of the CHS yearbook. Students must be both self-motivated and team-oriented. Activities include, but are not limited to: gathering content (text and photos), formatting content using our web-based yearbook program, organizing content and maintaining accurate files (hard copies and digital). Students may also be asked to format and contribute to other CHS publications, such as a literary magazine, school newspaper, and broadcast media.
Prerequisite: None. Duration: Full year. Credit: 1.0 Elective.

#177 Laker Learning Lab (L3):
The Laker Learning Lab (L3) is a student-driven, personalized learning experience in which students pursue individualized projects through a guided and supported partnership with an advisor. The L3 team will guide and support students throughout their L3 experiences, but ultimately this is a student-directed experience that requires students to be committed to the work and the learning. Students may enter the L3 experience at any point in the year. Students interested in pursuing an L3 project should contact their school counselor.
Prerequisite: Grades 10-12. Duration: Flexible. Credit: 0.5 Elective, graded Pass/Fail.

Driver Education

#490 Driver Education:
Driver Education is a basic course in the techniques and skills required for safe and proper motor vehicle operation. The course includes 30 hours of classroom instruction and 6 hours of "behind the wheel" road driving experience. Because enrollment in Driver Education is limited, students are selected according to their birth date, followed by their flexibility in scheduling the class. Students must be fifteen (15) years of age, possess a valid learner's permit, and participate in the enrollment process through the school counseling office.
Prerequisite: Students must be 15 years of age and possess a valid learner's permit. Duration: Semester. Credit: 0.5 Elective.

PLEASE NOTE: WHEN WILL STUDENTS RECEIVE THEIR COMPLETION CERTIFICATE?

VT State Driver Education Certificate of Completion will be issued according to the following schedule:
Fall semester: last week of the semester in January.
Spring semester: last week of the semester in June.
Summer session: late August.

Please be aware that some students may finish the driving portion of this class prior to receiving their certificate of completion. In some cases this means that students will have to wait for a period of time (in some situations a few weeks) before they receive their certificate. Please see the above guidelines for when students will receive their certificate as these are the ONLY times that these certificates are issued.

Driver Education FAQs:

1. When is Driver Education offered at CHS?
   A. Fall—two daytime sections, one after school section
   B. Spring—two daytime sections, one after school section
   C. Summer—one section

2. How does enrollment in Driver Education work at CHS?
   A. Students must bring a copy of their learner's permit to the school counseling office in order to be placed on the Driver Education waiting list. The waiting list is organized by birth date.
   B. Each semester every effort is made to fill daytime sections prior to filling an after school section. Remember, a student may not be able to be placed in a daytime section due to their attendance at one of the area technical centers.

   The number of students in each section of Driver Education is dependent on the number of behind-the-wheel instructors available.

3. When do students find out if they have received Driver Education on their schedule?
   A. Just prior to the start of each course students are informed from the CHS School Counseling Office if they have received Driver Education on their schedule for that semester. Again, we wait until just before the course begins to ensure that the oldest students will have the opportunity to enroll in Driver Education as soon as they obtain their permit.
   B. Fall Driver Education Notification: August
   C. Spring Driver Education Notification: January
   D. Summer Driver Education Notification: June
   E. Please be aware that each semester some students do decline Driver Education due to conflicts. For example: an after school job, a college course, a CHS course conflict, or athletics. If a student declines Driver Education they are placed back on the waiting list and the school will follow the process outlined in item number two above.

4. At CHS, typically when will a student obtain Driver Education?

   Due to the student population at CHS, most students will not obtain Driver Education until their junior year. Please be aware that each year a number of seniors are in Driver Education each semester and we want to ensure that all students have the opportunity to enroll in Driver Education at CHS. Many CHS families, for financial or other reasons, choose not to have their child obtain their permit until their senior year. At CHS we believe strongly that those students should be at the top of the Driver Education waiting list, and they should have the opportunity to enroll in Driver Education before they graduate.

5. Is it possible for younger students to get enrolled in Driver Education before older students? YES. Examples:

   A. Students at the Center for Technology Essex can only take Driver Education during the after school or summer sessions due to their schedules at the tech center. They will remain on the waiting list until there is a space available in a class that meets their scheduling needs. No special consideration is given to these students.
   B. When building the semester two sections of Driver Education courses during the daytime, we do not MOVE yearlong courses so that students can enroll in Driver Education. Maintaining the integrity of the student's academic course schedule is much more important than Driver Education enrollment. Therefore, if there is not a Driver Education section for this student to enroll in, this student remains on the waiting list and the next available student, who may be younger, that can fit Driver Education in their schedule is enrolled.

6. Does CHS allow students who do not attend CHS to enroll in CHS Driver Education classes?
   A. Colchester residents who are homeschooled or attend private school have access to Driver Education at CHS under the same terms as CHS students.
   B. Students who attend another local high school are not allowed to enroll in CHS Driver Education.
   C. Non-Colchester residents are not allowed to enroll in CHS Driver Education.

https://btc.bsdvt.org/

Burlington Technical Center
Program of Studies
2024 - 2025

Introduction

Burlington Technical Center (BTC) provides students with the opportunity to explore careers and acquire skills in comprehensive technical programs of study. All students are supported in working toward individual goals through immersive, hands-on learning with highly trained and industry certified professional instructors, experts in their career fields, in state-of-the-art labs and classrooms, and through experiential learning opportunities. Students will find themselves in a program with peers who are passionate about their learning and want to develop college career opportunities for themselves after high school.

Our half-day programs are a unique opportunity for students to develop academic and technical knowledge and skills in a morning (9:35-11:47 am) or afternoon (12:09-2:21 pm) session while attending classes at their sending high school. BTC offers a one-year exploratory program (Pre-Tech Design & Innovation) for students in grade 10, and 10 technical programs for students in grades 11 and 12. Most technical programs are two-year programs though there is a one-year program (Introduction to Healthcare) that can be attempted in either a student's junior or senior year. Two-year programs are best started in a student's junior year but students can begin a two-year program in their senior year and have the opportunity to complete programs as adults following high school graduation.

BTC programs support students' Personalized Learning Plan (PLP) goals, offering Flexible Pathways to graduation, careers, and postsecondary education through high school credits, dual enrollment/fast forward/college credits, internships and work-based learning opportunities, and industry recognized credentials and/or licenses.

- Two-year technical programs are available to juniors and seniors in many fields of study. Each student who completes a two-year technical program will be awarded six high school credits. Students will also be awarded Vermont High School proficiencies to assist in making academic progress towards graduation. See individual program descriptions for specific academic and elective credits awarded. In addition, many BTC programs offer students dual enrollment credits through articulation agreements with local colleges/universities.

- BTC also offers a one-year technical program for juniors and seniors as an option for students interested in healthcare careers. Students completing this program will be awarded three high school credits and Vermont High School proficiencies to assist in making academic progress towards graduation. This program also offers students dual enrollment college credits and the ability to earn an industry recognized credential (Licensed Nursing Assistant).

● The one-year pre-tech exploratory program is available to sophomore students only. Each student who completes a pre-tech exploratory program will be awarded three high school credits. Participation in a pre-tech exploratory program as a sophomore is beneficial to those who choose to enroll in technical programs as juniors or seniors but is not a requirement for application consideration.

High School Credits/Proficiency

Students will be awarded three high school credits for each successful year in a technical or pre-tech program. BTC students can earn core academic credits which are approved by the Vermont State Board of Education. See individual program descriptions below for specific academic and elective credits awarded. BTC also provides a listing of Vermont High School proficiencies that are aligned to each program on the BTC website. Students successfully completing programs can use the aligned proficiencies to demonstrate academic progress and readiness for graduation.

Dual Enrollment/Fast Forward College Credits

Many BTC programs offer students Dual Enrollment/Fast Forward college credits (up to 17 credits) for free or at a significantly reduced rate within the program's integrated curriculum. The opportunity to build a college transcript with transferable credits is valuable for students pursuing postsecondary education goals. In addition to the two Dual Enrollment course vouchers (for up to 8 credits) that students receive from their sending high school, students may use two additional Fast Forward Dual Enrollment course vouchers every semester that they are enrolled as a BTC student. Fast Forward vouchers are only offered through technical centers.

Professional Certifications

All BTC technical (non-pre-tech) programs offer pathways to earn professional certifications, industry-recognized credentials (IRCs) and/or licenses related to their technical fields as students build specialized and transferable skills. IRCs are one way a student can distinguish themselves from their peers in identifying a career pathway and potentially earning a higher wage.

Work-Based Learning and Cooperative Work Experience (Co-op)

Work-based learning is an educational strategy that provides students with real-life work experiences that enhance and complement their academic instruction. The intent of work-based learning is to have students apply the skills and content knowledge they have learned in their technical programs to real-life employment settings, while simultaneously helping them to develop new skills while working hands-on with professionals and employers in their technical field. The primary goals of work-based learning experiences (WBLE) are to create career awareness, and provide real-world work experience. One important goal of WBLE is to offer invaluable career and work experiences that can help students better decide if the career path they are on is the right one, by exposing the students to a wide variety of occupational opportunities within their chosen program. WBLE puts students into placements where employers are able to observe and provide feedback on a student's skills and work habits.

There are three types of career and work experience opportunities that BTC focuses on:

- Job Shadowing - A student will spend time observing what a typical day is like for someone employed in their field of interest. It is a chance to see what it is actually like to work in a specific job as well as to have the opportunity to ask questions about the job or profession. Job shadowing is an excellent opportunity to determine if the perception which a student has about a career field is the same as the reality of that job.

- Internship (short-term unpaid career work experience [CWE]) – An opportunity for a student to spend a period of time with an employer who is willing to give the student more specific training in their career field. This is a good opportunity for a student to develop more skills, and determine if it is the right job for them.

- Co-Op (long-term paid career technical experience [CTE]) – Students with the appropriate skills are paid while working in an actual job, typically during the program's regularly scheduled class time. An excellent opportunity to make money, enhance skills, and build a resume.

In addition to working with employers, students work with BTC's work-based learning coordinator (WBLC) to create industry-standard resumes and cover letters, develop response techniques for being interviewed, learn time-tested methods for making the best first impression, and other skills that will help them secure a job in their field. Educators work with the WBLC to bring in professionals from the community into the classroom to work with students in a variety of ways. WBLE in the classroom can include informational interviews, mentorships, and specialized training from the program's content area.

For more information about BTC Work Based Learning experiences go to the BTC WBL Website https://sites.google.com/bsdvt.org/wbl-btc/wbl-btc.

Career and Technical Student Organizations (CTSOs)

CTSOs are extracurricular groups that enable students in career and technical pathways to further their knowledge and skills by participating in activities, events, and competitions at the regional or national level. CTSOs are designed to offer students experience in leadership, citizenship, and occupational skills. Students in BTC programs opt to participate in the National Technical Honor Society, HOSA-Future Health Professionals, SkillsUSA and/or Educators Rising activities and competitions as they prepare for the workforce, higher education, and continued community involvement.

- HOSA - Future Health Professionals: Provides a unique program of leadership development, motivation, and recognition exclusively for secondary students enrolled in health science education and biomedical science programs or have interests in pursuing careers in health professions. HOSA is an international student organization recognized by the U.S. Department of Education and the Health Science Education (HSE) Division of ACTE. HOSA's two-fold mission is to promote career opportunities in the healthcare industry and to enhance the delivery of quality health care to all people. Through the BTC Health Sciences Academy, students have the opportunity to participate in HOSA state and national level competitions.

● SkillsUSA: A national CTSO for any student in technical programs. A vital solution to the growing skills gap, SkillsUSA improves the quality of America's skilled workforce through a framework of personal, workplace and technical skills grounded in academics. SkillsUSA enhances the lives and careers of students, instructors and industry representatives as they strive to prepare students for the workforce, higher education and continued community involvement. Students may have the option to participate in State SkillsUSA competitions in BTC programs. State winners move on to the National Competition.

● Educators Rising: Guides young people on a path from high school through college into teaching careers. By working with aspiring educators who reflect the demographics of their communities and who are passionate about serving those communities through public education, Educators Rising is changing the face of teaching. It provides structured curriculum, competitions for demonstrating skill proficiency, conferences for networking and enhanced learning opportunities, and connection with others who are passionate about the teaching profession.

● National Technical Honor Society (NTHS): The National Technical Honor Society currently serves approximately 100,000 active members and nearly a million members since its inception in 1984. Awarding over $1.7 million in scholarships to date, NTHS honors the achievements of top Technical Education students, provides scholarships to encourage the pursuit of higher education, and cultivates excellence in today's highly competitive, skilled workforce. BTC students have the opportunity to be inducted into the NTHS to honor student achievement and leadership in career technical education.

Support Services

School Counseling Support Services: The BTC school counseling coordinator supports a variety of learning needs including, but not limited to academic counseling, college and career planning, PLP and Flexible Pathways integration, and social-emotional wellbeing. The BTC school counseling coordinator collaborates with sending school counselors and other support personnel to assure student needs are addressed.

EL (English Language) Support Services: BTC offers EL students in and out-of-class support, guided study labs, differentiated curriculum, and individualized learning strategies to support academic achievement and help students work toward their personal, academic, and career goals.

Student Support Coordinator: BTC has a Special Educator on staff who supports students on plans by communicating with sending schools, teachers, students and families. The Student Support Coordinator attends IEP/504/EST and student planning meetings as a liaison between the home school and BTC. The Student Support Coordinator supports students directly with class support, observation and classroom recommendations, as well as social/emotional check-ins and direct support with skill development.

Academic Interventionist: BTC recently added a position for an academic interventionist who pushes into class in order to support students with direct classroom skills including reteach, scaffolding and extension in order to support all students within the program.

Paraeducator: BTC has one paraprofessional who also pushes into classrooms as needed in order to provide students with direct hands-on support of classroom material, social/emotional check-ins and implementation of accommodations as necessary.

How to Apply / Admission Requirements

All interested students should complete the following items:

1. Visit BTC in person to learn more about a program of interest. Students can visit either during a designated in-school visit day or at an evening information event. Speak to your school counselor about the in-school visit opportunity or check the BTC website (btc.bsdvt.org) or call 802-864-8426 for evening visit dates/times.

2. Meet with your School Counselor to discuss your interest in a BTC program. Your counselor will help you consider how this opportunity aligns with your Personalized Learning Plan. They will also discuss scheduling considerations and how to assure you stay on track for BHS graduation.

3. Complete an application by the specified deadline which is noted on the BTC website (btc.bsdvt.org). When you submit your application, your school counseling team will be prompted to review it and upload relevant information that is required for you to be considered for admission.* Students are required to be in good academic standing and on-track to graduate with their 9th grade cohort.**

4. Complete an interview with the BTC program instructor. The program instructor will reach out to all qualified applicants and set up an interview, either in-person, via phone or video call.

5. BTC will notify school counselors of admissions decisions.

Questions? Please contact James Yepez, School Counseling Coordinator jyepez@bsdvt.org

**Attendance & Discipline may be considered as a factor in acceptance.*

***Applicants who are not currently on track for graduation with their class group may be reviewed on a case-by-case basis.*

Descriptions and Course Listings

Pre-tech Exploratory Program (Grade 10)

A Pre-tech Exploratory Program is a viable option for Flexible Pathways to HS graduation

- Year-long opportunity for students to navigate through personalized learning plan goals.
- Means to incorporate evidence of proficiency outside the traditional high school classroom environment.
- Opportunity to frontload proficiency in skills which are integral to grades 11-12 technical center programs of study.
- Provide evidence to support proficiency-based graduation requirements
- Early opportunity to plan for future work-based learning experiences, certification opportunities, and Dual Enrollment options during high school.

Pre-tech Innovation, Technology & Design - 4769 (Grade 10)

HS Credits for 1 Year Program: 1.0 Science credit and 2.0 Elective credits

Program Description: This program is designed to provide 10th grade students with a unique experience in a collaborative makerspace environment where they explore technology, innovation, and entrepreneurship. Students progress through multiple modules in Technology & Application of Science including: Structural and Mechanical Design/ Fabrication, Information Technology, Web & Digital Communications, and Visual Art. Each module consists of a variety of projects that are designed to help students develop their knowledge of 2D and 3D design, rapid prototyping, communication, problem solving, data analysis, and critical thinking skills. Throughout this course, students have access to a variety of resources including traditional hand tools, power tools, and computer controlled equipment such as a vinyl cutter, 3D printers, CNC routers, and a laser cutter. In addition, they will be introduced to mechatronics through the design and fabrication of a computer (Arduino) controlled mechanical system. This program can advance student preparation for 11th and 12th grade tech programs as well as employment in the trades and introductory college courses in engineering and design.

Students attend the one-year Design & Innovation Exploratory program at BTC Monday through Friday in either the morning (9:35-11:47 am) or afternoon (12:09-2:21 pm) session.

VT Proficiency-Based Graduation Requirements (PBGRs): Design Innovation is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs).

Indicators of a Successful Student

- 8th grade reading level
- Ability to perform basic math (addition, subtraction, multiplication, division)
- Ability to take measurements using fractions, decimals, and percentages
- An innate interest in making things and hands-on work
- Curiosity about how things work and a drive to solve problems
- Have a Personalized Learning Plan that reflects an interest in CTE programming
- Strong desire to be successful in the pre-tech learning environment

Requirements

- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

One-Year Technical Programs (Grade 11 or 12)

Students attend the one-year Technical Program at BTC Monday through Friday for half of their academic day. Students may attend BTC in the morning (9:35-11:47 am) or in the afternoon (12:09-2:21 pm) depending upon what works best with their schedule at their sending school. There is no difference in the program if the student participates in either their junior or senior year.

A one-year technical program is a viable option for Flexible Pathways to HS graduation

- As a career-pathway focused opportunity for students to navigate through personalized learning plan goals.
- As a means to incorporate evidence of proficiency outside the traditional high school classroom environment.
- As a means to provide evidence to support proficiency-based graduation requirements.
- As an opportunity to earn certifications and earn Dual Enrollment credits during high school.

Introduction to Health Care I - 4920 (Grade 11 or 12)

HS Credits for 1 Year Program: 1.0 Science credit and 2.0 Elective credits

Program Description: program is designed to allow students to explore a career in healthcare by training for Licensed Nursing Assistant certification with the potential to earn up to 3 college credits. Students in this program are likely to seek employment out of high school and may pursue college education as well.

Upon completion of this program and a passing score on the Licensed Nursing Assistant Exam, students will be immediately employable in the state of Vermont at any hospital or long term care facility. By completing the program students will be able to access year one of many college nursing programs.

Students must receive a grade of at least an 80 each quarter in order to sit for the LNA exam at the end of the school year.

VT Proficiency-Based Graduation Requirements (PBGRs): Introduction to Healthcare is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency.

Industry Recognized Certifications: Students can gain certification as a Personal Care Attendant and a Licensed Nursing Assistant. American Red Cross Certifications in: Adult, Infant and Child CPR, Automated External Defibrillator, First Aid and Bloodborne Pathogens.

Dual Enrollment/College Credit Opportunities

- Community College of Vermont
    - Introduction to Health Care (3.0 credits)
    - Human Biology (3.0 Credits)

Indicators of a Successful Student

- Strong reading skills to comprehend safety policies and procedures
- Strong attendance record
- Have a Personalized Learning Plan that reflects an interest in Health related fields
- Strong desire to be successful in the Healthcare learning environment

Requirements

- Successful completion of one year of high school biology
- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Two-Year Technical Programs (Grade 11 and 12)

Students attend two-year Technical Programs at BTC Monday through Friday for half of their academic day. Students in the first year of their program meet at BTC in the morning (9:35-11:47 am) and students in the second year of their program meet in the afternoon (12:09-2:21 pm) session. Students entering a two-year program in their junior year have the best opportunity to complete program objectives, obtain industry recognized certifications and maximize college crediting. However, students are still eligible to begin two-year programs in their senior year.

A two-year technical program is a viable option for Flexible Pathways to HS graduation

- As a career-pathway focused opportunity for students to navigate through personalized learning plan.
- As a means to incorporate evidence of proficiency outside the traditional high school classroom environment.
- As a means to provide evidence to support proficiency-based graduation requirements.
- As an opportunity to participate in work-based learning experiences, earn certifications, and earn Dual Enrollment credits during high school.

Automotive Science and Technology I - 4822 (Grade 11 or 12)

Automotive Science and Technology II - 4823 (Grade 12)

HS Credits for 2 Year Program

- Year 1 - 3.0 Elective credits
- Year 2 - 2.0 Elective credits and 1.0 Science credit

Program Description: Automotive Science and Technology's rigorous curriculum is designed to prepare students for college and/or career opportunities. Common Core and National Science standards are an integral part of the automotive curriculum; subsequently, students study scientific principles as they're applied to the design, operation and service of a modern automobile. Students will learn how engines work, troubleshoot common engine problems and fuel system issues, analyze and complete vehicle manufacture repair algorithms. Students disassemble a modern vehicle engine, use micrometers, dial indicators to measure engine components, build and test electrical circuits, complete basic vehicle maintenance procedures and operate machinery associated with lifting a car, changing / balancing wheels and performing wheel alignments.

While a large percentage of graduates pursue further education and careers associated with the automotive industry, others have utilized the electro-mechanical knowledge and skills acquired in the program to begin successful careers in related areas such as: electrical/mechanical engineering, heating/ventilating, plumbing, industrial refrigeration and heavy equipment. Following graduation, 80% of the students continue on to postsecondary education, including schools associated with vehicle manufacturers such as General Motors Automotive Education Program (GM ASEP), 15% go into the workforce with opportunities for advanced training and 5% enter the military. Students have been accepted to the following schools: American International College, Carleton University, Champlain College, Franklin Pierce College, Vermont Technical College, Mount Hood Community College, New England Institute of Technology, New Hampshire Technical College, Stonehill College, University of Northwestern Ohio, University of Vermont.

VT Proficiency-Based Graduation Requirements (PBGRs): Automotive Science & Technology is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency

Industry Recognized Certifications: SP2: Mechanical Safety, Mechanical Pollution Prevention, Ethics and you in the Automotive Industry, Land That Job: Interview Skills for Automotive Students; ASE: Automotive Service E-Learning

Articulation Agreements: Students successfully completing this program may qualify for advanced standing or prior learning college credit at University of Northwest Ohio, Lincoln Technical Institute, CT and Lakes Region Community College, NH

Indicators of a Successful Student

- Experience in Algebra
- Reading/writing at grade level for industry tests and manuals
- High attention to detail
- Strong work ethic
- Strong attendance record
- Capable of working both independently and as part of a team
- Have a Personalized Learning Plan that reflects an interest in Automotive Science & Technology
- Strong desire to be successful in the Automotive Science & Technology learning environment

Requirements

- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Aviation and Aerospace Technology I - 4834 (Grade 11 or 12)

Aviation and Aerospace Technology II - 4835 (Grade 12)

HS Credits for 2 Year Program

- Year 1 - 3.0 Elective credits
- Year 2 - 1.0 Elective credit, 1.0 Science credit, and 1.0 Math credit

Program Description: This program is a highly technical and multidisciplinary curriculum that teaches students not only how aircraft work, but how to troubleshoot, inspect and maintain those aircraft. Units include everything from the basics like math and physics to more specific subjects like corrosion control, aircraft hardware, flight surfaces, and even FAA regulations. This program blends classroom theory with plenty of hands-on practical experience in order to prepare students for a future in aviation. Students disassemble and reassemble piston and turbine engines, learn about hand tools and how to properly use them, learn to weld, and even how to run an aircraft on the ground. The graduates from the BTC Aviation and Aerospace Technology program have the option of attending our satellite facility at the Burlington airport to continue their training and obtain their A&P Certificate (Airframe and Powerplant Mechanic Certificate). Students completing the program can find jobs in almost every part of the U.S. Some aviation students have continued on to college and/or to flight school. Others have joined the armed services to become aircraft mechanics.

VT Proficiency-Based Graduation Requirements (PBGRs): Aviation and Aerospace Technology is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency.

Industry Recognized Certifications: Federal Aviation Administration Airframe & Powerplant (A&P) license

Articulation Agreements: Aviation related colleges may award (up to 67) college credits to students earning their A&P license. As an example, students matriculating at Vermont State University after completing their A&P license through BTC will only require 7 additional classes to complete their Associate of Applied Science in Aviation Maintenance Technology.

Indicators of a Successful Student

- Experience in Algebra, Geometry, and some beginning Trigonometry
- Have a Personalized Learning Plan that reflects an interest in Aviation & Aerospace Tech
- Strong desire to be successful in the Aviation & Aerospace Technology learning environment
- Strong attendance record

Requirements

- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Design and Illustration I - 4750 (Grade 11 or 12)
Design and Illustration II - 4752 (Grade 12)

HS Credits for 2 Year Program

- Year 1 - 3.0 Elective credits
- Year 2 - 2.0 Elective credits and 1.0 Art credit

Program description: This program is for students prepared to be challenged to expand their expertise in the visual arts. Students have the opportunity to build skills in traditional and digital media, with a focus on building a portfolio. Students will be exposed to many different forms of art, from the foundation of observational drawing to photography and graphic design—using Macintosh computers, the Adobe Creative Cloud, DSLR cameras, and Wacom drawing tablets. Units of study include figure drawing from life, photographing indoor and outdoor themes, designing logos, greeting cards, and magazine articles, and illustrating. Successful students attend prestigious art schools and liberal arts schools, often earning

scholarships for their portfolios. Some students work at apprenticeships or enter the workforce directly. In recent years students have been accepted to Maine College of Art, MassArt, Savannah College of Art and Design, Rhode Island School of Design, Parsons, and the School of Museum of Fine Arts.

VT Proficiency-Based Graduation Requirements (PBGRs): Design & Illustration is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency.

Dual Enrollment/College Credit Opportunities

- Community College of VT (CCV)
    - Digital Photography I (3.0 credits)
    - Graphic Design I (3.0 credits)
    - Introduction to Adobe Creative Cloud (3.0 credits)
    - Printmaking I (3.0 credits)
- River Valley Community College (RVCC)
    - Introduction to Drawing (3.0 credits)

Industry Recognized Certifications: Adobe Associate Photoshop, Illustrator, InDesign

Indicators of a Successful Student

- 9th grade reading level
- Strong interest in developing artistic abilities
- Strong attendance record
- Willingness to work both independently and in group settings
- Have a Personalized Learning Plan that reflects an interest in Design & Illustration
- Strong desire to be successful in the Design & Illustration learning environment

Requirements

- Successful completion of Art 1 or similar foundational art class.
- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor. Examples of 5-10 pieces of artwork to be shared at a required interview.

Design, Engineering & Fabrication I - 4700 (Grade 11 or 12)

Design, Engineering & Fabrication II - 4701 (Grade 12)

HS Credits for 2-Year Program

- Year 1 - 1.0 Science credit, 1.0 Math credit, 1.0 Elective credit
- Year 2 - 1.0 Science credit, 1.0 Math credit, 1.0 Elective credit

Program Description: This program immerses students in rigorous academics (math [algebra, geometry, trigonometry], science [physics]), practical applications (manufacturing processes and techniques, such as welding, machining, CNC machine coding, precision measurement), and experiential learning (including product design and manufacture, job-shadowing, simulated job interviews). Students perform research and develop presentations to explore their specific areas of interest. Students are provided with guidance in the college application process and will also complete a workplace skills unit, geared to careers in manufacturing, including job applications, resumes, cover letters, and interviews. Students will be prepared to go on to rigorous college programs at institutions like RIT, WPI, RPI, Cornell University, Brown University, Northeastern University, University of Vermont, and successfully earn degrees as engineering professionals in a variety of technical fields.

VT Proficiency-Based Graduation Requirements (PBGRs): Advanced Manufacturing & Engineering is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency.

Industry Recognized Certification Opportunities: Certified Production Technician (CPT) through Manufacturing Skill Standards Council (MSSC)

Indicators of a Successful Student

- Strong math skills
- Motivation to work in the engineering fields
- Strong attendance record
- Ability to work both independently and cooperatively in groups
- Have a Personalized Learning Plan that reflects an interest in Engineering
- Strong desire to be successful in the Advanced Manufacturing and Engineering learning environment

Requirements

- One year of high school algebra.
- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Digital Media Lab I - 4767 (Grade 11 or 12)
Digital Media Lab II - 4768 (Grade 12)

HS Credits for 2 Year Program

- Year 1 - 3.0 Elective credits
- Year 2 - 2.0 Elective credits and 1.0 Science credit

Program Description: This program provides an introduction to digital media production with a focus on electronic music, podcasting, digital video, graphic design, VFX, photography, and emerging media (examples include animation, VR, apps for mobile devices and game design). The classroom environment provides a mix of drama, art, music, and technology. Students in this program engage in projects ranging from filmmaking to sampling music and ambient sound to syncing kinetic type to music and designing digital FX for an action sequence. DML is a project-based learning structure, where students work both independently and in groups on a variety of media projects. Students attend universities and colleges to pursue degrees in Filmmaking, Music Production, Digital Media, and Graphic Design (Motion Graphics).

VT Proficiency-Based Graduation Requirements (PBGRs): Digital Media Lab is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency.

Dual Enrollment/College Credit Opportunities

- Community College of VT (CCV)
    - Introduction to Technology in Music (3.0 credits)
    - Introduction to Adobe Creative Cloud (3.0 credits)
    - Digital Photography I (3.0 credits)
    - Digital Filmmaking I (3.0 credits)
    - Storytelling Through Media (3.0 credits)

Industry Recognized Certifications: Adobe Photoshop, Premiere Pro

Indicators of a Successful Student

- Experience with technology strongly recommended for this program
- Strong attendance record
- Have a Personalized Learning Plan that reflects an interest in Digital Media
- Strong desire to be successful in the Digital Media Lab learning environment

Requirements

- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Education Training & Leadership I - 4776 (Grade 11 or 12)

Education Training & Leadership II - 4777 (Grade 12)

HS Credits for 2 Year Program

- Year 1 - 3.0 Elective credits
- Year 2 - 2.0 Elective credits and 1.0 Social Studies credit

Program Description: This program provides the foundational knowledge and skills needed to work with a diverse group of people in entry level professions such as mental health, community development, respite and health organizations, and education. The study of human growth and development sets the framework for discoveries, discussions, and presentations of various topics (such as human behavior, brain development, and developmental psychology). Students sharpen their interpersonal communication skills, reflect on and assess human behavior in a variety of settings, and have opportunities to develop projects that make a difference in their communities. Students participate in work-based learning by partnering with industry professionals and through working in community agencies and organizations. Students have the opportunity to work with preschool children in our on-site preschool classroom. Most of our students go on to colleges/universities to pursue degrees in psychology, education, social work. Other students go directly into the workforce related to our program of study.

VT Proficiency-Based Graduation Requirements (PBGRs): Human Services is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here- VT CTE AOE Proficiency.

Industry Recognized Certifications: American Red Cross First Aid, CPR & Automated External Defibrillator Certification, Infant, Child and Adult; First Aid Bloodborne Pathogens; Mandated Reporter

Dual Enrollment/College Credit Opportunities

- River Valley Community College RVCC)
    - Human Development (3.0 credits)
    - Supportive Communication Skills (3.0 credits)
    - Foundations of Early Childhood Education (3.0 credits)
    - Curriculum for Early Childhood Care and Education (3.0 credits)
    - Children with Special Needs & Their Families (3.0 credits)

Indicators of a Successful Student

- Experience using Google and Microsoft Office applications
- Motivated, self-driven
- Strong attendance record
- Have a Personalized Learning Plan that reflects an interest in Human Services
- Strong desire to be successful in the educational and human services learning environment

Requirements

- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Health Sciences Academy I - 4780 (Grade 11 or 12)
Health Sciences Academy II - 4782 (Grade 12)

HS Credits for 2 Year Program

- Year 1 - Anatomy & Physiology (1.0 Science credit), Human Growth and Development (.5 Social Studies credit), 1.5 Elective credits
- Year 2 - Anatomy & Physiology (1.0 Science credit), Health (.5 credit), Elective (1.5 credits)

Program Description: This program immerses students in rigorous academics (anatomy and physiology, medical terminology, human growth and development, microbiology and nutrition), practical applications (medical assessment techniques, such as vital signs, reflex testing, goniometry, electrocardiography, diagnostic lab testing), and experiential learning (including dissections, job-shadowing, simulated job interviews). Students perform research and develop presentations to explore their specific areas of interest. Students are provided with guidance in the college application process and will also complete a workplace skills unit, geared to careers in health care, including job applications, resumes, cover letters, and interviews. 95+% of our students go on to rigorous college programs such as Cornell University, Brown University, Northeastern University, University of Vermont, Emory University, and have successfully earned degrees as health care professionals in a variety of fields.

VT Proficiency-Based Graduation Requirements (PBGRs): Health Sciences Academy is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency.

Industry Recognized Certifications: American Red Cross Certifications in: Adult, Infant and Child CPR, Automated External Defibrillator, First Aid and Bloodborne Pathogens, Basic EMT and/or Phlebotomy certification.

Dual Enrollment/College Credit Opportunities

- Vermont State University (VTSU)
    - Anatomy and Physiology I (4.0 credits)
    - Anatomy and Physiology II (4.0 credits)
    - Human Growth and Development (3.0 credits)
- Community College of Vermont
    - Introduction to Healthcare (3.0 credits)
- River Valley Community College (RVCC)
    - Human Biology (4.0 credits)
    - Medical Terminology (3.0 credits)

Indicators of a Successful Student

- Strong biology skills
- Motivation to work in the health science fields
- Strong attendance record
- Ability to work both independently and cooperatively in groups
- Have a Personalized Learning Plan that reflects an interest in Health Sciences

- Strong desire to be successful in the Health Sciences Academy learning environment

Requirements

- Successful completion of one year of high school biology.
- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Homeland Security & Criminal Justice I - 4850 (Grade 11 or 12)
Homeland Security & Criminal Justice II - 4851 (Grade 12)

HS Credits for 2 Year Program

- Year 1 - 3.0 Elective credits
- Year 2 - 2.0 Elective credits and 1.0 Social Studies credit

Program Description: This program provides students with an introduction into careers in a variety of fields related to criminal justice, corrections, homeland security, juvenile justice, rehabilitation services and victim advocacy, and law. Units of study include: the history of law enforcement, the court system, juvenile law, ethics, criminal law, criminal procedures, interview and interrogation, defensive tactics, criminal investigation, corrections, forensics and investigation (to include evidence identification, collection and analysis). Field trips, guest speakers, and the use of industry-specific equipment and simulated crime scene investigations involving guest experts allow students to study modern techniques and procedures in real world scenarios using industry-standard equipment are some of the practical experiences provided that enhance classroom learning and are an integral part of the curriculum. Hands-on learning is an important part of the program, with students directly engaged in learning, preparing, practicing, and demonstrating their knowledge and skills in criminal justice and law. Approximately 50% of students who complete this program go to successfully perform in college/university, and 40% enter the military and perform to exemplary standards.

VT Proficiency-Based Graduation Requirements (PBGRs): Criminal Justice is aligned with technical competencies (ACTE Common Career Technical Core Standards), academic (content-area) proficiencies, and transferable skills proficiencies (VT AOE PBGRs). For a complete list of Agency of Education CTE Program Proficiency and alignment to VT Graduation Standards click here - VT CTE AOE Proficiency.

Dual Enrollment/College Credit Opportunities

- Community College of Vermont
    - Introduction to Criminal Justice (3.0 credits)
    - Forensics & Crime Scene Investigation (3.0 Credits)

Industry Recognized Certifications: FEMA & Emergency Management Institute Law Enforcement Certifications, American Red Cross: Blood Borne Pathogens, First Aid/CPR/AED, CPR-Child, Infant and Adult

Indicators of a Successful Student

- Strong English skills required for extensive research, organization, and writing
- Basic computer and software proficiency (Microsoft and Google products)
- Strong attendance record
- Have a Personalized Learning Plan that reflects an interest in Criminal Justice
- Strong desire to be successful in the Criminal Justice learning environment

Requirements

- Visit the program site by the application deadline. This can be done either during an in-school field trip scheduled through your school counseling office or by attending an evening information session.
- Complete and submit a BTC application by the application deadline.
- Participate in an interview with the program instructor.

Equal Employment Opportunity and Non-Discrimination Statement

Applicants for admission and employment, students, parents, employees, sources of referral of applicants for admission and employment, and all unions or professional organizations holding collective bargaining or professional agreements with the Burlington School District are hereby notified that it is the intent of the Burlington Board of School Commissioners that the District will not discriminate against employees and/or applicants for employment, students or other designated beneficiaries of the statutes listed below on the basis of race, sex, gender (including but not limited to pregnancy and parental status), color, age, creed, religion, disability, handicap, ancestry, place of birth, national origin, marital status, political affiliation, sexual orientation, gender identity or gender expression in any of its employment and education practices, policies, procedures or decisions or in the operation of, access to, participation in, benefit of or admission to its programs, activities, services and facilities and that it will provide equal access to the Boy Scouts of America and other designated youth groups in compliance with and to the extent provided by the laws listed below.

Pursuant to the §504 of the Rehabilitation Act of 1973, the Board will take positive steps to employ and advance in employment qualified handicapped persons in programs receiving federal assistance under the Education of the handicapped Act (Individual with Disabilities Education Act) and make reasonable accommodations to the known physical or mental limitations of the qualified handicapped applicant or employee to the extent required by law. The superintendent of his or her designee shall prepare, and the board shall approve, guidance to applicants and employees regarding requests for reasonable accommodations, including provisions for undue hardship.

The District's Title VI Coordinator, the Age Discrimination Act Coordinator and Americans with Disabilities Act Coordinator for employees and others is Ze Susan Anderson-Brown, Human Resources Director, Burlington School District (802) 864-2159; 1-800-253-0191 TDD; The District's Title IX Coordinator for employees, students, parents and other such relatives, friends, guest speakers or visitors is Henri Sparks, Director of Equity, Burlington School District (802) 864-8411; 1-800-253-0191 TDD. The District's Americans with Disabilities Act Coordinator for students and §504 Coordinator is the Director of Student Support Services of the Burlington School District (802) 864-8456; 1-800-253-0191 TDD

Burlington Technical Center – 29 Church Street, LL, Burlington, VT 05401
802-864-8426-phone 802-864-8521-fax https://btc.bsdvt.org/

CTE Program of Studies 2024-2025

Mission Statement

The Center for Technology, Essex is a diverse community of learners. We believe that the dynamic integration of rigorous academic and technical instruction will prepare students for success in a wide array of careers and postsecondary endeavors. We actively and purposefully strive to provide an equitable and safe learning environment. We ensure the personal, academic, and technical growth of all our students.

Learning Beliefs

- All students have the potential to achieve at different paces.
- Students learn best when instruction is relevant to their career and post-secondary interests and requires critical thinking and authentic problem solving.
- Creating a sense of belonging is essential to ensuring a safe and equitable learning environment.
- Collaborative learning is foundational to career education and having the opportunity to work alone and in groups prepares students for post-secondary learning.

Learning Expectations

Academic and Career
Students will:

- Apply appropriate academic and technical skills: demonstrate the acquisition of core knowledge in defined subject areas. • Communicate clearly and effectively and with reason through oral, written, and technical modes of expression • Demonstrate creativity and innovation
- Employ valid and reliable research strategies
- Utilize critical thinking to make sense of problems and persevere in solving them
- Use technology to enhance productivity
- Plan education and career paths aligned to person goals
- Model integrity, ethical leadership, and effective management

Social
Students will:

- Demonstrate professionally effective personal and interpersonal communication and behavioral skills. • Work productively in teams while using cultural global competence

Civic
Students will:

- Consider the environmental, social, and economic impacts of decisions

The Center for Technology, Essex (CTE) operates a full day, flexible block schedule. This schedule allows juniors and seniors to complete a technical program in one year. Students attend CTE daily, from 9:40 a.m. - 2:05 p.m. Every program offers two to three academic content proficiency areas (math, science, English, social studies, etc.) as well as a range of VT Agency of Education Transferable Skills toward high school graduation. In addition, many students take separate academic courses (e.g., algebra, chemistry) at CTE, Essex High School, or a local college to meet graduation or college entry requirements. Our schedule allows flexibility for students.

The primary objective of our CTE programming is to provide each student with specific knowledge, skills, and theory to enable him/her to either obtain employment upon completion of the program and/or to pursue post-secondary education. All eligible students participate in a "Career Work Experience" (internship) related to their technical field during their program at CTE. For successful students, this may evolve into a paid work (Co-op) position. Industry credentials and/or licenses are affiliated with all programs.

College Connection: Many CTE programs qualify for dual enrollment credits that award eligible students college credit for their CTE program. These agreements include college transcripts and transferable credit. CTE students in all programs are also offered the opportunity to take college courses for free or at a reduced rate at area colleges.

Admission Requirements:

1) Participate in a virtual or in-person visit
2) submit a complete application with transcript, attendance and discipline records attached by March 10 deadline 3) attend admissions interview
4) Students must be determined as on track for graduation as indicated in their sending school's proficiency progression. *This is determined by a review of the academic transcript and a school counselor recommendation.* 4) good attendance (no more than 15 absences, unless there are extenuating circumstances) 5) ability to work both independently and in group situations
6) ability and willingness to follow safety instructions
7) respect for self, others, the environment, the learning process, and the CTE employability skills

CENTER for TECHNOLOGY, Essex: PROGRAMS OFFERED

Full day programs

For Eleventh and Twelfth Grade Students

Automotive Technology I & II
Building Technology: Residential
Building Technology: HVAC
Childhood Education/Human Services I & II
Computer Animation & Web Page Design I & II
Computer Systems Technology I & II
Cosmetology Arts and Sciences I & II
Design & Creative Media I & II
Engineering/Architectural Design I & III
Health Informatics
Natural Resources and Agri-science Technology: Mechanical Science
Natural Resources and Agri-science Technology: Forestry
Professional Food Services I & II
Apprenticeship Training / Internship
Dental Assisting

For Ninth and Tenth Grade Students

Pre-Tech Explorations: Foods, Health, and Human Development (grade 10 - full day program)
Pre-Tech Explorations: BASES - Building Arts and Small Engine Systems (grade 10 - full day program)
Pre-Tech Explorations: IDEA – Information Technology, Design, Engineering, and Arts (grade 10 - full day program)
Pre-Tech Explorations: Natural Resources (grade 10 - full day program)
Pre-Tech Foundations: Intro to Engineering (grade 9 or 10 - single block course)

The Center for Technology, Essex is an equal opportunity agency that offers all persons the benefits of participating in each of its programs and competing in all areas of employment. This agency does not discriminate because of race, religion, color, ancestry, national origin, gender, gender identity, sexual orientation, place of birth, age, or against a qualified individual with a disability.

Helpful Terms:

- **Embedded proficiencies:** Academic proficiencies in Math, Science, Social Studies, or English that are approved by the Vermont State Board of Education and meet state required high school graduation requirements. These proficiencies are awarded based upon the rigor and connection of content in the program area to the core academic discipline.
- **Integrated proficiencies:** Academic proficiencies in Math, Science, Social Studies, or English that are taught by licensed academic instructors who teach directly in the CTE program.
- **Recommended Reading Level:** This measure is provided as a guideline to indicate the demands of the text used in our CTE programs. Many of our programs have highly technical text demands. This measure is **not** an entrance requirement. This information is included in the Program of Studies to inform students, families, and sending schools about the difficulty of typical text in our programs and to maximize the likelihood for student success. Support services are offered to all CTE students.

AUTOMOTIVE TECHNOLOGY I

The Automotive Technology Program provides training and experience in the principles of automotive diagnosis and repair. The Automotive Technology Program has been recognized nationally for its excellence; it is a NATEF (National Automotive Technicians Education Foundation) certified course. The Automotive Technology program provides students with the basic knowledge and skills to acquire entry-level jobs in many automotive areas, or to pursue a post-secondary education in the automotive field. Students have the opportunity to learn both basic and advanced technical skills, along with essential employability skills. While at CTE, students work as practicing technicians in the "live" auto shop environment operated within the center. Eligible students are placed in a two-week Career Work Experience in area automotive technology businesses.

Recommended Prerequisite(s): Grade Level proficiency in Math, Science and English
H.S. Proficiencies: Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certifications: VADA GST certifications**,** SP/2 Safety Training
College Credits: Articulation Agreements with University of Northwestern Ohio, Universal Technical Institute and Ohio Technical College
Recommended Reading Level: Grade 11-13+

AUTOMOTIVE TECHNOLOGY II

Qualified students are invited to apply to our apprenticeship program with a limited number of slots available. It is made available for qualified students through the Automotive Youth Education System (AYES), a national program sponsored by manufacturers and dealers. The curriculum includes paid apprentice hours at local employers, on-line CDX certificate
training, college classes provided at area colleges, adult training courses in our evening skill tech division and regularly scheduled individual meetings with a cooperative education placement coordinator.

Prerequisite: Successful completion of the Automotive Technology I program
H.S. Proficiencies: Embedded math proficiencies, embedded science proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certification: ASE

BUILDING TECHNOLOGY: RESIDENTIAL

In the Building Technology: Residential program, students will work in the shop, onsite in a custom home being built in a local neighborhood development near CTE or a commercial building project off-site. Successful students have the potential to find well-paid jobs in the field or to go on to further education in architecture and design, civil engineering, or construction management. Curriculum components include basic safety, construction industry math, hand tool use and identification, power tool safety, use and maintenance, blueprint reading, basic rigging, construction materials and adhesives, and framing methods and planning. In addition, some students may enroll in a licensed apprenticeship program for electricians or plumbers who are accredited by the State of Vermont.

H.S. Proficiencies: Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Co-Op Offered: Qualified students may apply to participate in a second year co-op.
Recommended Reading Level: Grade 11-13+

BUILDING TECHNOLOGY: HVAC

In the Building Technology: HVAC program, students will have instruction and gain practical experience in electrical, plumbing/HVAC systems, excavation and site layout, and concrete. Successful students have the potential to find well paid jobs in the field or to go on to further education in architecture and design, civil engineering, or construction management. In addition, some students may enroll in a licensed apprenticeship program for electricians or plumbers who are accredited by the State of Vermont.

H.S. Proficiencies: Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Co-Op Offered: Qualified students may apply to participate in a second year co-op.
Recommended Reading Level: Grade 11-13+

CHILDHOOD EDUCATION AND HUMAN SERVICES I

This program is designed to prepare students to work with young children, the elderly, and people with special needs. Students are introduced to careers in education, human services, and child psychology and instructed in the steps they need to take to pursue a teaching career or a career in the human service field. The program teaches students to provide instruction in math, science, reading, and social studies at the elementary school level. Students are also trained to work with the handicapped and the elderly. The students enrolled in this program operate the CTE Preschool. The program is recognized by the State of Vermont Day Care Licensing Unit as a training program for assistant teachers and caregivers in state licensed childcare facilities. Students are introduced to the human service field, such as social work, geriatrics, and child psychology. Students attend Career Work Experiences with infants and toddlers, school-age children, and the elderly. In cooperation with the Community College of Vermont students are able to earn six college credits in Early Childhood Education while participating in this program. Students are also able to attend Champlain College or Community College of Vermont for additional credits.

Special Requirement of All Students: Due to the professional requirements in this field, all applicants must be able to satisfy the criminal records check required by the state Child Care Services Division.
HS Proficiencies: Integrated English proficiencies, embedded social studies proficiencies, fine arts proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certification(s): Assistant Child Care Teacher, First Aid and CPR
College Credits: Up to six credits awarded by CCV; six additional credits available to qualified students.
Recommended Reading Level: Grade 9-11+

CHILDHOOD EDUCATION AND HUMAN SERVICES II

Qualified students are invited to apply to our apprenticeship program. Students involved in this program work at area schools, pre-schools, or childcare facilities. This is a supervised work experience and students are expected to fulfill the planned course work at the center as well as complete a college level course each semester and any required high school academic classes. Students are paid by the employers for their time at the centers. Students are required to complete three rotations in school settings: one rotation in an alternative school, one rotation in an elementary school classroom, and a rotation observing elementary school math, music, and art classrooms. In cooperation with CCV, eligible students can earn three additional college credits for a psychology course.

Prerequisites*:* Successful completion of Childhood Education and Human Services I program.
HS Proficiencies: Integrated English proficiencies, embedded social studies proficiencies, embedded Fine Arts proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
College Credits: Additional courses at CCV and VTC earn three to nine additional credits.

COMPUTER ANIMATION AND WEB PAGE DESIGN I

The Computer Animation and Web Page Design Program is designed for students interested in the combination of art and technology. Through the program students acquire media skills for 21st century careers. The Computer Animation component takes advantage of state-of-the-art 2D and 3D digital computer hardware and software used in media such as Pixar films and games. Learn how to bring your ideas to reality, from characters to landscapes, to animation and special effects. This CTE program also offers specific elements of game design. In the web design component students study a number of different design mediums including XHTML, HTML5 and CSS: students add interactivity, image manipulation, logo and layout creation using Photoshop and Illustrator and create streaming/interactive content in Flash. Upon completion of the program, students have created an interactive online portfolio of their best work for application to higher education, internships, or the work force.

Recommended Prerequisite(s): Students must demonstrate creativity and interest in the combination of art and technology and the ability to work independently.
H.S. Proficiencies: Integrated English proficiencies, embedded fine art proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certification(s): World Organization of Webmasters
College Credits: Dual enrollment agreement with CCV for up to six college credits. In addition, qualified students can earn up to nine more college credits at area colleges.
Recommended Reading Level: Grade 9-11+

COMPUTER ANIMATION AND WEB PAGE DESIGN II

Students who successfully complete the Computer Animation and Web Design Page 1 program may apply to the second year program. Second year students will expand their knowledge of new media skills and work with clients on projects. The Computer Animation component of the second year consists of using 3D software to learn advanced poly modeling techniques, character development and modeling, unwrapping models to texture, and using digital painting to normal map. The Web design curriculum includes creating complex websites using HTML5 / CSS, employing JavaScript to develop web 2.0 technologies, and creating a content management system for clients using PHP and MySQL. Along with creating websites, students in the second year program will use state of the art cameras to take photographs for their web projects and create high-definition videos to be hosted on the web. During the year, students work on developing a professional online portfolio, which can be used to apply to college or a job after graduation. In addition to the curriculum all students access a career work experience where they expand their skills while working with actual clients.

Prerequisite: Successful completion of Computer Animation and Web Design I program.
H.S. Proficiencies: Integrated Computer Science proficiencies, integrated English proficiencies, embedded fine art proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certification(s): World Organization of Webmasters
College Credits: Same dual enrollment agreement with CCV as CAWD I. In addition, qualified students can earn up to three VTC credits in English Composition and three credits at CCV in Drawing I.

COMPUTER SYSTEMS TECHNOLOGY

The Computer Systems Technology Program prepares students to enter a career in computer support services as part of an information technology team. Students learn how to diagnose and solve computer problems, upgrade computer systems, properly install internal computer components, set up networks, operate network servers, and maintain computers in a Windows or network environment. Students gain necessary skills to become support/service/bench or help desk technicians. The program is excellent preparation for students considering computer engineering in college, and eight transferable college credits are awarded to successful students.

***HS Proficiencies*:** Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
***Certification(s)*:** A+
College Credits: Dual Enrollment agreement with CCV for up to eight credits.
Recommended Reading Level: Grade 11-13+

COMPUTER SYSTEMS TECHNOLOGY II

Successful students who earn required certifications may apply to return to CTE for an advanced/second year to work on Network and Cisco Certified Network Associate (CCNA) certification. Study, in combination with co-op placement, assists students qualify for this challenging license required by information technology support staff.

Prerequisites: Successful completion of Computer Systems Technology I program.
***HS Proficiencies*:** Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
***Certification(s)*:** Network +, CCNA
College Credits: Four credits for CISCO Networking, plus the opportunity for four credits College English Composition from VTC.

COSMETOLOGY ARTS AND SCIENCES I

Approved by the State Board of Cosmetology and Barbering as a licensed school of cosmetology, this full-time program prepares students for employment and further education in the field of cosmetology. Students can complete up to 750 hours toward their required 1000 hours for a state cosmetology license. Students learn through theory and practice the foundational skills including hair structure and chemistry, hair shaping and design decisions, color and lightening application and scientific process, and chemical restructuring of the hair. Additionally, level one anatomy and physiology, skin and nail diseases and disorders are important topics covered in this program. The introduction of interpersonal and workplace readiness skills is an integral part of this program of study.

HS Proficiencies: Embedded science proficiencies, integrated English proficiencies, integrated math proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certification(s): OPI certification (nail system)
Recommended Reading Level: Grade 11-13+

COSMETOLOGY ARTS AND SCIENCES II: SALON MANAGEMENT

Students who successfully complete Cosmetology I may be accepted into the client-oriented second year program. Cosmetology II students can complete up to an additional 750 clock hours toward the required 1000 hours for a state cosmetology license. Students in this program focus on applying fundamental skills learned in the first year while practicing on clients in a business setting. In preparation for licensure, all competencies introduced in Cosmetology I are revisited in a theoretical manner. Cosmetology II Salon Practices Management emphasizes the day-to-day operation of the salon. This yearlong program reinforces and enhances salon management, scientific application of chemical services and interpersonal communications.

Prerequisite: Successful completion of Cosmetology I program.
HS Proficiencies: Embedded science proficiencies, integrated English proficiencies, integrated math proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certification(s): State Cosmetology License for qualified students
College Credits: Students can earn up to nine college credits at area colleges (CCV, VTC, and UVM).

DENTAL ASSISTING

Accredited by the American Dental Association, this program is designed for students who have a strong background in science and want to work with people. Students become familiar with all aspects of dental assisting in the general dental practice. The curriculum is designed to prepare motivated individuals to become competent and knowledgeable in professional orientation, dental materials, dental radiology, tooth morphology, head and neck anatomy, infection control, clinical assisting, and medical emergencies/CPR. Instruction takes place in our in-school classroom, dental laboratory and clinic. For eligible students, clinical training is completed at area dental offices. Students who successfully complete the program and meet eligibility requirements are prepared to challenge the Dental Assisting National Board examination to become Certified Dental Assistants and to become certified in dental radiology. All successful students are eligible for employment as dental assistants in a variety of dental practices.

Recommended Prerequisite(s): General or biological science.
HS Proficiencies: Embedded science proficiencies, embedded math proficiencies, integrated English proficiencies, technical skills proficiencies and VT AOE Transferable Skills.
Certifications: American Red Cross CPR and AED (defibrillator) certification; dental radiology certification.
Recommended Reading Level: Grade 10-12+

DESIGN AND CREATIVE MEDIA I

Look at the logo on your T-shirt or ball cap, or the package you opened this morning that your breakfast burrito came in? How about the images in iTunes that direct you to download a certain song or the graphic icons on your cell phone? What do all these seemingly unrelated examples have in common? All were designed by a graphic designer. This creative/technical design-based hands-on program is for students who thrive on technology, a challenge, and love computers; for students who are curious about color, imagery, photography, how design interacts with people on a daily basis; for students who want to explore careers in communication and creative media while learning graphic design for print and new media. This program mirrors a design studio. Students take a design project from concept creation through digital production and preparation for output to various media. Students learn the Adobe creative suite (Illustrator, Photoshop, InDesign, etc.) software on a Mac computer. Through a combination of project work, site visits, field trips and career work experience, students will gain experience in many aspects of the industry that touch our lives in so many ways. For completion of the program students create a portfolio and earn the Design and Creative Media Certification awarded by the *Regional Design and Creative Media Advisory Council.* Students can apply for the second year program where a career-based client driven design studio is managed by the students.

***HS Proficiencies*:** Integrated art proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
College Credits: Students can also earn credits from CCV in graphic design through a dual enrollment initiative and articulate up to 15 credits at Lyndon State College in their Visual Arts department.
Recommended Reading Level: Grade 11-13+

DESIGN AND CREATIVE MEDIA II

Students who successfully complete the Design and Creative Media I program may apply to the second year program. Second year students have a choice between two program models. Qualified students can complete program requirements by participating in an apprenticeship in which they go directly into the workforce and expand their skills through employer-based programs. Other students may wish to complete their second year in our in-house design and print studio, *Next Generation Design & Print*. In both instances, students engage in software certification and learn to manage the design and print studio. Second year students also develop concepts for client jobs, produce and prepare the digital job files, and print/finish the live client jobs.

Prerequisite: Successful completion of Design and Creative Media I program.
HS Proficiencies: Integrated art proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
College Credits: Student portfolios can earn up to nine credits from Lyndon State and nine credits from the Vermont State College system. Dual enrollment credits in Graphic Design II and Digital Image Manipulation (three credits each) as well as a Drawing I class available to qualified students.

ENGINEERING / ARCHITECTURAL DESIGN

The Engineering and Architectural Design Program is an excellent hands-on preparation for students interested in architecture or mechanical engineering. Students learn the graphic language basic to all forms of engineering, architecture, and design. The program provides an essential background and early opportunity for students to explore the field prior to college. College credit may be awarded to eligible students who complete this program. Students also complete a portfolio valuable for college application. This course has been recommended by UVM and VTC to all students considering engineering careers.

The program utilizes an individualized approach. A student may enter the program on a one or two year basis; flex scheduling is accommodated. Students must be enrolled in both math and science courses while taking this program (Algebra II, Pre-Calc, Chemistry, Conceptual Physics or Physics). By graduation, students should plan to have successfully completed Algebra I, Geometry, Algebra II, Pre-Calculus or Algebra, Trigonometry, Probability and Statistics (ATPS), Chemistry and Physics as minimum requirements for any two or four year college.

ENGINEERING / ARCHITECTURAL DESIGN
Year I: TECHNICAL DRAFTING

In this course, students progress through a series of drafting problems, providing them with a sound foundation in the methods and techniques used in various drafting and design applications. Orthographic, isometric, sectioning, perspectives, schematics, developments and many other types of graphics will be covered. Computers with AUTOCAD and SOLIDWORKS software are used to solve and draw many of these problems. Multimedia portfolios are produced using Microsoft Office applications.

***Recommended Prerequisite**:* Algebra I, Geometry (80% or better in each)
HS Proficiencies: Embedded fine arts proficiencies, embedded math proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Recommended Reading Level: Grade 10-12+

ENGINEERING / ARCHITECTURAL DESIGN
Year II: DESIGN
After completion of technical drafting, the student may enter the design area in which he/she wishes to concentrate - Mechanical Design or Architectural Design.

MECHANICAL DESIGN provides students with experiences in advanced detail drafting, assembled mechanisms, precision measuring, fixture design, CNC computer numerical control and programming. The design, building and testing of structural models are covered through involvement with engineering competitions. Work in this course is completed entirely on computer with SOLIDWORKS and other software. Students chosen to participate in the *VTC* course *MEC 1011* receive two (2) transcripted college credits.

ARCHITECTURAL DESIGN covers residential buildings. Topics include styles, construction, design floor plans, elevations, foundations, electrical, plumbing, heating, kitchens, lot and plot plans. Students are involved in the actual design of buildings to be constructed in the surrounding community. Work in this course is completed entirely on computer with AUTOCAD and other software. Students chosen to participate in the *VTC* course *ARC-1021* will receive two (2) transcripted college credits.

HS Proficiencies: Embedded fine arts proficiencies, embedded math proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.

College Credits: In addition to the VTC MEC-1011 or ARC-1021 transcripted credits, some colleges have waived courses for work demonstrated in students' portfolios. Eligible students may also take VTC English Composition and other college classes.

HEALTH PROFESSIONS
This program focuses on training for diverse medical administrative positions and as an introduction to health professions. Health care increasingly relies upon the expertise of staff trained in both interpersonal communications and technical skills. Course topics include medical terminology, human biology, career development, medical office management, computer science, electronic health records, medical insurance reimbursement and diagnostic/procedural medical coding. Students also discuss the ethical and legal issues regarding work in medicine as well as personnel management, insurance issues, the specific skills involved in working from home, and other information management topics.

Eligible students in this program participate in a 30-hour career work experience in the health care industry, with placements in private physicians' offices, hospitals, clinics or insurance companies. Possible career fields include but are not limited to: Health care supervision, medical coding and insurance reimbursement, medical office secretary and patient scheduling. Students could qualify for clinical health related careers with additional training.

HS Proficiencies: Integrated anatomy and physiology proficiencies, embedded math proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certifications: CPR, First Aid
College Credits: Up to six college credits for eligible students through dual enrollment at CCV. Additional three - nine credits are available through classes at area colleges.
Recommended Reading Level: Grade 11-13+

NATURAL RESOURCES AND AGRISCIENCE TECHNOLOGY FORESTRY AND MECHANICAL SCIENCE

Students are offered a unique opportunity to experience the science, technology, and management of a "living laboratory" in this award winning, fast paced program. The program is organized into two one-year options. Students select either Forestry (Environmental Science/Horticulture) or Mechanical Science after completing an introductory unit featuring core skills during Step-Up Day. ***Forestry (Environmental Science/Horticulture)*** curriculum includes Timber Harvesting, Forest Management, Landscaping, Greenhouse Management, Plant & Soil Science, Hydroponics/Aquaculture and Hand and Power Tools. ***Mechanical Science*** curriculum includes Heavy Equipment Operation, Welding Fabrication, Small Engine Repair, Electrical Systems, Water Systems, Hydraulic Systems and Hand and Power Tools. In both concentrations, students have the opportunity to develop leadership and entrepreneurial skills as they produce a variety of seasonal food products. Several traditional food products include maple syrup, honey, rainbow trout, and hydroponic vegetables. Students interested in attending college to major in mechanical engineering, natural resources and environmental fields will benefit from this program. Students preparing for careers relating to industrial mechanics, or the management, use and preservation of land, soil, and water will find this course tailored to meet their needs.

Recommended Prerequisite(s): Qualified applicants must demonstrate maturity with respect to safe equipment operation such as chainsaws and heavy machinery, the ability to work effectively in teams; maintain a high level of respect for classmates, and instructors; and act in a manner congruent with authorized ambassadorship of a highly visible program. Mastery of basic mathematical operations, measurement, fractional and metric conversions, and logical manipulative skills is required. Preference will be given to students with math and science backgrounds.
HS Proficiencies: Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certifications: Games of Logging I-IV, Outdoor power equipment certification in small engines (OPE). ***College Credits***: Articulation agreement in place with SUNY Cobleskill, NY (Agricultural Engineering and the Department of Plant Sciences) and Paul Smith's College. Eligible seniors can earn three college credits in English Composition or up to six credits at area colleges.
Co-Op Offered: Qualified students who have completed one year of Natural Resources may apply to participate in a second year co-op.
Recommended Reading Level: Grade 10-12+

PROFESSIONAL FOOD SERVICES I

The Professional Food Services Program is designed to offer training in all areas of the food service industry. Students in this program learn food preparation, baking, and restaurant operation and management. Teamwork, professionalism and positive worker traits are stressed as well as technical skills in order to give students a chance to secure and retain employment in the food service field.

Students work and learn in a commercial kitchen and use professional equipment as part of their training. Part of the instruction involves operating the Center's restaurant "The CTE Café and Bakery." Students learn basic weights and measures, food service safety and sanitation, product identification and use, time management, nutrition, use and care of equipment and mastering food service competencies. There is a close working relationship with area businesses which allows students to spend two weeks with a participating employer on a Career Work Experience.

Recommended Prerequisite(s): Good basic math and writing skills.
HS Proficiencies: Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certifications: ServSafe
Recommended Reading Level: Grade 10-12+

PROFESSIONAL FOOD SERVICES II

Students who complete the Professional Food Services I program can apply to this second year program. The curriculum focuses on menu design, marketing, and sales in an entrepreneurial food production setting. Students learn to work more independently and assume responsibility for food production management decisions. Students produce and market healthy meals to be sold in the school's cafeteria. There is a close working relationship with area businesses which allows students to spend two to three weeks with a participating employer on a Career Work Experience. Students may qualify for an extended Apprenticeship placement in the second semester.

Recommended Prerequisite(s)*:* Good basic math and writing skills.
HS Proficiencies: Embedded math proficiencies, embedded science proficiencies, integrated English proficiencies, technical skills proficiencies, and VT AOE Transferable Skills.
Certifications: ServSafe
College Credit: An exciting dual enrollment program with New England Culinary Institute (NECI) is an option for eligible seniors. This program awards three credits and provides a three-day residential session at NECI in Montpelier. Additionally, CTE has an articulation agreement with Paul Smith's College

APPRENTICESHIP TRAINING

The Center for Technology, Essex (CTE) offers those students who have successfully completed one year at CTE and are highly motivated, focused, and highly skilled a second year option of student apprenticeship in certain career areas. This workplace, competency delivered curriculum, combines both non-paid and paid training, vital for students to achieve advanced job placement or acceptance in a post-secondary institution in their selected career area. Successful first year students must interview for these placements.

Programs and Classes for Ninth and Tenth Graders

PRE-TECHNICAL EXPLORATION: Building Arts and Small Engine Systems - BASES (Full Day Program) Get your bases covered in this section of Pre-Tech. We learn a variety of carpentry and construction skills through project-based learning in an extensive woodshop. We discover the ins and outs of small engines by dissecting and restoring engines and equipment to working order. If woodworking or engines interest you, this is the place to build a solid foundation or crank up your passion for your future.

Pre-Technical Education is a one-year, six-period program **for sophomores** who thrive in project-oriented experiences that emphasize applied academics. Students are involved in a wide variety of cutting-edge technical activities where they learn science, mathematics, social studies, and communication skills while building personal development assets. Much of the learning takes place outside a traditional classroom and instead uses authentic locations to engage reluctant students and to provide experiences for deeper and more relevant learning. Students apply specifically to this strand of the Pre Technical program.

Students succeeding in this program are likely to experience success in their future and are encouraged to enroll in CTE programs to further develop their skills and advance their learning.

Prerequisites: Applicants must have a ninth grade transcript that shows grade level progress in math, science, English, and social studies.

HS Proficiencies**:** Integrated proficiencies in English, math, science, fine arts, physical education and technical skills.

PRE-TECHNICAL EXPLORATION: Information Technology, Design, Engineering, and Arts - IDEA (Full Day Program)

Inquiry, Imagination, Innovation. What drives you?

PreTech: IDEA prepares students to be successful on a path to technology and design careers. Through projects, students learn how to creatively solve problems, communicate ideas, and work with a team. We follow a creative production process and use technology as a tool to communicate and produce ideas. Some units include Brain Science, Product Development and Marketing, Electronics, Fine Art, IT, and more!

PreTech: IDEA is a gateway to the following CTE programs: Computer Animation and Web Design, Computer Systems Technology, Design and Creative Media, and Engineering.

Pre-Technical Education is a one-year, six-period program **for sophomores** who thrive in project-oriented experiences that emphasize applied academics. Students are involved in a wide variety of cutting-edge technical activities where they learn science, mathematics, social studies, and communication skills while building personal development assets. Much of the learning takes place outside a traditional classroom and instead uses authentic locations to engage reluctant students and to provide experiences for deeper and more relevant learning. Students apply specifically to this strand of the Pre Technical program.

Students succeeding in this program are likely to experience success in their future and are encouraged to enroll in CTE programs to further develop their skills and advance their learning.

Prerequisites: Applicants must have a ninth grade transcript that shows grade level progress in math, science, English, and social studies.

***HS Proficiencies*:** Integrated proficiencies in English, math, science, fine arts, physical education and technical skills.

PRE-TECHNICAL EXPLORATION: Health, and Human Development (Full Day Program) In this section of Pre-Tech, experience nutrition through learn about how the human body works, including personal fitness and wellness, and child development. Through projects such as planning and preparing meals, creating books for kids, home made skin care products and others, students will develop the positive relationship and communication skills needed to join a workforce of people who enjoy helping others.

Pre-Technical Education is a one-year, six-period program **for sophomores** who thrive in project-oriented experiences that emphasize applied academics. Students are involved in a wide variety of cutting-edge technical activities where they learn science, mathematics, social studies, and communication skills while building personal development assets. Much of the learning takes place outside a traditional classroom and instead uses authentic locations to engage reluctant students and to provide experiences for deeper and more relevant learning. Students apply specifically to this strand of the Pre Technical program.

Students succeeding in this program are likely to experience success in their future and are encouraged to enroll in CTE programs to further develop their skills and advance their learning.

Prerequisites: Applicants must have a ninth grade transcript that shows grade level progress in math, science, English, and social studies.

***HS Proficiencies*:** Integrated proficiencies in English, math, science, fine arts, physical education and technical skills.

PRE-TECHNICAL EXPLORATION: Natural Resources (Full Day Program)

Natural Resources provides an opportunity to study curriculum related to natural resources in an environment that caters to a hands-on, creative and mindful individual. The class explores many topics, including heavy equipment, welding, soil science, forestry and silviculture. Units will be structured around student led projects and activities that focus on communication, academics, and occupational skills.

Prerequisites: Applicants must have a ninth grade transcript that shows grade level progress in math, science, English, and social studies.

***HS Proficiencies*:** Integrated proficiencies in English, math, science, fine arts, physical education and technical skills.

ACADEMIC COURSE OFFERINGS

VERMONT STATE UNIVERSITY ENGLISH COMPOSITION 1060

This English dual enrollment course offers qualified seniors the opportunity to earn both a high school English credit and three college credits in English Composition. This course introduces students to four literary genres – the short story, poetry, the novel and drama – and to research writing. The course aims to 1) master the techniques of essay writing, 2) educate students about the rewards inherent in reading, analyzing and reflecting upon literature, 3) communicate effectively, both orally as well as in exposition, and 4) increase their awareness of their responsibilities as global citizens who have both technological and academic skills." A student must have acceptable Accuplacer scores and recommendation from an English teacher. All students earn one high school English credit. Students must meet additional requirements to earn college credit. Enrollment is limited to 20 students. This is a full year class.

SENIOR ENGLISH

This course is for juniors and seniors interested in going to college. Students learn to read beyond comprehension and recall and for meaning and interpretation. They learn to write about abstract concepts using effective essay writing formulas.

ENGLISH 11/12

Looking for relevance in your English class? Look no further. A major goal of this English class is to link aspects of this course to your life, your needs, and your experience at CTE. Much of the reading, writing, and communication skills in this course focus on helping students prepare for further success in the job search, in the workplace, and in life. Projects throughout the year allow students to make a direct link between academic and technical training.

ALGEBRA 1

This course provides students with a foundation in algebra to prepare for further mathematics courses. Topics covered are the real number system, a study of first-degree equations and inequalities, operations with algebraic expressions, factoring, polynomials, radicals, and a brief introduction to quadratic equations. Some lessons include the use of a graphing calculator.

ALGEBRA 2

Algebra 2 gives students more practice with basic algebraic operations and concepts. It then presents deeper concepts and more difficult operations for them to analyze and perform. Some of the topics covered are real numbers, equations and inequalities, polynomials, fractions, exponents, radicals, logarithms, sequences and series, complex numbers, graphing and analysis of functional relationships. Some lessons include the use of the graphing calculator.

ALGEBRA 2 WITH FINANCIAL APPLICATIONS
Algebra 2 with financial applications is a project-based, financially driven class that meets Algebra 2 requirements. This class is designed for students who have successfully completed Algebra 1. This class moves slower than traditional Algebra 2 courses and dives deeper into real-world financial problems which are addressed through Algebra 2 strategies. The course also focuses on building financial literacy.

VERMONT STATE UNIVERSITY PRE-CALCULUS
This course is an opportunity for students to earn college credits through Vermont Technical College in 2 semester-long mathematics classes. It is meant to be a stepping-stone to college mathematics. The first semester we focus on strengthening and expanding algebra 1, Algebra 2, and Geometry skills through work with systems of equations, factoring, quadratics, exponents, and radicals. During the second semester we explore the big ideas in trigonometry, logarithms, and complex numbers -- skills that both prepare students for college level mathematics and for being a thoughtfully engaged member of their community. Prerequisites: Teacher recommendation, Credit in Algebra 2, and Accuplacer scores.

GEOMETRY
Students are introduced to geometry principles they apply to the world of work. Topics include points, lines, circles, and properties of polygons, constructions with compass and straight edge, congruency, angle bisector, special projects and related vocabulary. Students maintain a computer-based log of activities with "Geogebra", a web-based system that allows students to manipulate geometric concepts, focus on learning, and work at their own pace. Specific applications with graphic design, computer/internet web design, and building construction provide relevant connections to life and careers.

APPLIED SCIENCE
This course is designed to provide students with scientific literacy in Physical and Life Sciences. Topics are explored through inquiry, discussion, projects, lab investigations, research, and technology. Basic concepts in Biology and Ecology are woven into the curriculum. It provides an excellent foundation in the basic topics of life science, always placing an emphasis on how each topic relates to students' daily lives. Lectures, demonstrations, videos, computer simulations, and traditional hands-on lab activities are used throughout the curriculum. This course has been designed to meet Next Generation Science Standards. Topics include scientific method and experimentation, biology, ecology, and human body systems.

CHEMISTRY
This course is designed to provide students with scientific literacy in Chemistry and Biochemistry. Topics are explored through inquiry, discussion, projects, lab investigations, research, and technology. Basic concepts in chemistry and biochemistry are woven into the curriculum. It provides an excellent foundation in the basic topics of general chemistry, always placing an emphasis on how each topic relates to daily life. Lectures, demonstrations, videos, computer simulations, and traditional hands-on lab activities are used throughout this course. This course has been designed to meet Next Generation Science Standards. Topics include human body chemistry, scientific method and experimentation, classifying matter, liquids, solids, gases and mixtures, solutions, properties of water, atomic structure, acids and bases, stoichiometry, chemical bonds, and an introduction to chemical reactions.

PHYSICAL EDUCATION
Physical education is a graduation requirement that CTE offers in two different formats. One class is offered every day and the other option meets twice per week and includes keeping an independent activity log. Both classes consist of a variety of lifetime sports/ activities with a focus on health-related components of fitness. By the end of the class, students will create a personal fitness plan based on their interests and needs as a way to promote lifetime physical activity and demonstrate knowledge of the important role exercise plays in disease prevention and lifetime wellness. Information learned in this course is applied to the students' CTE programs to promote fitness and health in the workplace. Examples of units of study for both courses may include ice-skating, weight training, yoga, disc golf, ultimate frisbee, floor hockey, tennis, badminton, and pickleball.

HEALTH
CTE Health provides students with knowledge and skills needed to develop and maintain good health throughout their lifespan. During this semester long course students will learn how to access accurate health information, set health related goals, analyze influences on personal health, and communicate and advocate for their physical and emotional wellbeing. Topics covered in this class include nutrition, physical fitness, effects of substance use on health, teen brain development, and sexual health including knowledge of contraception and disease prevention. Students will practice decision making, goal setting, and communication skills, and learn how to positively manage stress and anxiety. This class will help them develop the good habits, attitudes, and practices that support lifelong health and well-being.

ELL – ENGLISH FOR ACADEMIC AND PROFESSIONAL PURPOSES
This course is for non-native English language speakers who need to improve their English skills in order to participate in CTE programs with confidence. The course is tailored to the specific needs of each program and the focus is on developing academic vocabulary relevant to the student's field of study and their future workplace. Students work on research, presentation, and reading academic text skills needed in class as well as on building confidence and fluency for effective communication needed in their job search and professional working environment.

ELL – INDEPENDENT STUDY
A major goal of this course is to the meet particular language needs of every English language learner studying at CTE. Students work one-on-one with an ELL teacher to fill in any gaps in their English language learning, whether it is their pronunciation, grammar, or communication skills. This Independent Study also offers a high degree of flexibility and personalization. Students design an individual study plan together with the teacher and follow it through to prepare themselves for success in a chosen CTE program.

FINE ARTS
Through the assignments given in this Independent Study, students will explore different art techniques and media to create expressive and interesting artwork. Students will be pushed to think independently about assignments and to create interesting compositions. By the end of the semester students will have a portfolio that shows a range of knowledge and skills that they have learned through creating artwork.

DRIVER EDUCATION
This curriculum is designed to develop good driving skills, knowledge, and attitudes with an emphasis on safety. Classroom, simulation, range, and road experience will be included. Those students registering for Driver Education must obtain a Vermont Learner's Permit prior to the first day of class each semester.

PUBLIC ISSUES
Public Issues is a social studies course that examines current events, public policy and civics. Students explore the foundations of American government, the principles of the Constitution, rights and responsibilities as citizens, as well as current public policy challenges for local communities, Vermont, the United States and the world. The course utilizes a variety of instructional methods including lecture, individual and cooperative assignments, simulations, discussion, research and student presentations. Throughout the semester students use current publications, media, and technology to stay informed about the issues facing us today at a local, state, national, and global level. Emphasis will be made on the importance of being an involved and informed citizen.

U.S. HISTORY

This social studies course attempts to connect our lives as Americans to the past, present, and future. Students will gain an understanding of some of the major events, people, places, and ideas that are affecting our world today, and connect these modern-day events with the history that created them. This course will also present opportunities for students to learn to think critically, identify cause and effect, recognize and appreciate diversity, and understand key institutions, ideas and principles of human rights, government and economics. The course covers the following units through the lens of three central themes (politics/foreign policy; society/culture, and economy): the Civil War & Reconstruction, Westward Expansion/Native Americans, Industrialization & Progressivism, Imperialism & The Spanish-American War, World War I, The "Roaring Twenties" & the Great Depression, World War II & the Holocaust, the Cold War/Korea/Life in the 1950s, Civil Rights & Turmoil in the 1960s, Vietnam, and the 1970s-1990s. In addition to the topics listed above, students also work on some critical skills, including reading, research, developing persuasive arguments, and writing.

SENIOR PORTFOLIO

Senior Portfolio is a .5 credit social studies class that fulfills the senior project requirement for many sending schools. As part of the class, students create a professional portfolio of work that they can use to represent their job skills and qualifications in an employment or college interview. The project consists of multiple components that include professional documentation (resume, letters of recommendation), community service work, reflective essays and work samples that demonstrate the students' proficiency in their career area. Students finish the course with a demonstrated learning presentation in an area of their expertise.