

# **LEADERSHIP AND GOVERNANCE**

## **ADMINISTRATIVE OVERSIGHT**

### **Principal, Joyce Stone**

Athletics  
Humanities  
Leadership Team  
School Planning Team

### **Assistant Principal, Amy Giles**

Business  
Health  
Library  
Mathematics  
Science  
Technology  
Target Graduation

### **Assistant Principal, Chris Lang**

Physical Education  
World Languages

### **Director of Student Support Services, Michael Clark**

Fine Arts/Music  
Guidance  
Nurses  
SAP Program  
Special Education

## **TEAM LEADERS**

### **Dave Bahrenburg**

Athletics  
  
Business  
Mathematics

### **Chris Lang**

Health  
Humanities  
Science  
Technology

### **Vito Cannizzaro**

Fine Arts  
  
World Languages

### **Jean Shea**

Special Education  
  
Physical Education  
BEST

### **Bill Rich**

**Colchester High School**  
**Laker Lane, P.O. Box 900**  
**Colchester, VT 05446**  
**(802) 658-1570**

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January 2003

Dear Parents:

This *CHS Program of Studies* represents the best efforts of the faculty, administrators, and team leaders to develop the most appropriate programs for our student body. For example, students continue to team in the Green House humanities courses. We are entering the third year of a pilot in differentiated instruction. In 2002-03 the pilot embraced both 9<sup>th</sup> grade humanities (East/West Studies) and 10<sup>th</sup> grade (American Experience). Teaming, curriculum integration, and differentiation are under consideration in other content areas as well.

In the Blue House students choose from a variety of courses designed to meet their personal and career goals. Because students have provided positive feedback regarding the desirability of varied semester offerings in English and social studies, other departments have made similar changes in their programs as well. In most departments you will find expanded offerings to meet core and elective graduation requirements. Furthermore, CHS is in the process of developing Career Pathways. In 2004, at least one career academy will be in place and ready to offer programs and pathway choices suited to the interests and goals of the students in that academy. Our vision is that eventually all students will choose a pathway and will strive to graduate with “distinction” in their pathway.

It is important that you take the time to examine the courses offered and how they fit into your student’s long-range plans. This is doubly important this year. In 2000, CHS began to phase in new graduation requirements. The Class of 2004 will be required to have earned 24.5 credits, including more science, mathematics, civics, and electives. In addition, they will be required to demonstrate proficiency in keyboarding and computer applications. I urge you and your student to review the specific requirements year by year and make long-range plans accordingly. Furthermore, for many students these courses are already in place because they have made decisions based on the admissions requirements of competitive colleges. It is imperative that students begin in grade 9 to examine their post-secondary plans. In that regard, students who enter in fall 2002 will develop a Personal Learning Plan designed to meet their individual needs as learners and citizens in the school and beyond.

Do not hesitate to discuss your child's plans and interests with the guidance counselor, teachers, and administration. We very much want to support families in making good decisions about the academic, as well as the social and emotional, needs of students.

Sincerely,  
Joyce E. Stone  
Principal

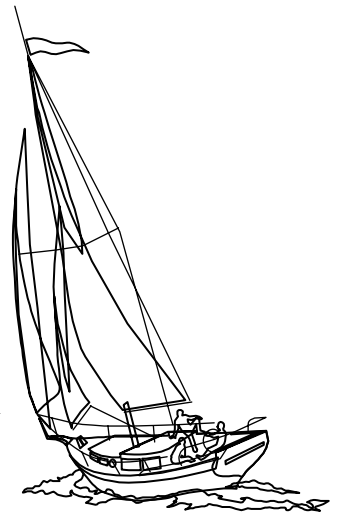
# COLCHESTER SCHOOL DISTRICT

## OUR MISSION

The mission of the Colchester School District – *proud of its respect for individual needs and its commitment to integrated learning* - is to ensure that all students will develop the academic proficiency, social skill, and character to be fulfilled, responsible, and involved citizens; we will accomplish this by providing diverse, challenging educational experiences in partnership with families and the community.

## OUR OBJECTIVES

1. All students will meet or exceed defined district standards in these fields of knowledge: science, math and technology; social sciences; arts/ humanities.
2. All students will meet or exceed defined district standards in communication, reasoning and problem solving, personal development, and social responsibility at each appropriate benchmark.
3. Each student will achieve challenging personal goals in academics, social skills, and character building.
4. Each student will acquire the social skills needed to relate respectfully and cooperatively at each level of his/her development.
5. All students will choose to become involved citizens by performing service in their school or community at each appropriate level.



## **Faculty/Staff Vision**

### **In the year 2005...**

**Students** exhibit emotional well-being and a sense of belonging and, consequently, enjoy growth to their fullest potential as individuals. As active learners, they take responsibility for their learning. They function as independent thinkers skilled in inquiry-based learning. Students are involved in their school community and the co-curricular activities and events available to them. They have a voice in the decisions made at CHS through student government, student/teacher advisory, the school leadership structure, and other formal and informal avenues of participation. As citizens of CHS, they support respect, responsibility, and pride and model tolerance and purposefulness in all aspects of their lives.

**Faculty and staff** exhibit emotional well-being and a sense of belonging. They demonstrate enthusiasm for their work and compassion for students and colleagues alike. Team work is the norm of the school with a strong emphasis on camaraderie in their dealings with students and one another. In their words and actions they promote life long learning. They are skilled in their content and pedagogy and challenge students and colleagues to learn and grow. Faculty and staff enjoy ongoing opportunities to grow professionally and stay abreast of changes in their field. Professional development at CHS is designed, planned, and implemented to meet immediate needs and support life long learning as well. Ample time and resources are allocated for this purpose.

**Parents** enjoy a rich two-way flow of information with CHS. They value the mission of the school and demonstrate respect for the process of teaching and learning. Parents see themselves as life-long learners and educators and consequently support any nurture their children's education. In many ways parents demonstrate their ownership of the school and commitment to a partnership with the educators who work with their children.

The **climate of the school** is truly characterized by respect, responsibility, pride, and compassion. Respect includes regard for oneself, others, the environment, the community, the nation, and the world. Inclusion is the norm for all members of the school community because a sense of belonging is pervasive in the school's culture. The school, as a gathering place for the community, provides for extended educational opportunities beyond the traditional school day. Students are exposed to a variety of experiences -- intergenerational and multicultural, among others -- that serve to broaden their knowledge, promote tolerance, and celebrate diversity. The school's discipline system is fair, consistent, and proactive. The support systems for students include interventions to assist students in changing their behavior and to ensure that the faculty, staff, and administrators are trained in conflict resolution and effective student management strategies. Students, teachers, and parents feel successful, and those successes are celebrated in formal and informal ways.

**Curriculum, instruction, and assessment** are congruent and effective across all content areas and programs. The **curricular programs** at CHS are articulated and aligned across the district. The school offers a wide range of courses that are well defined and sequential, as they build toward higher levels of mastery. In the Green House students engage in a variety of integrated learning experiences, such as Humanities and integrated math and science. In the Blue House other appropriate opportunities for integrated learning are available as well. Students have access to a broad range of elective offerings designed to meet personal, career, and other immediate and post-secondary needs. Self-actualization is the focus of Blue House courses. While students must complete their graduation requirements, they may also select an area of specialization for in-depth exploration. Students graduate from CHS prepared for their post-secondary experience in college or the workplace. Some students may elect to graduate with the governor's Diploma and/or with "CHS Distinction."

**Instruction** at CHS is challenging, informed by research, and intentionally based on identified standards of performance for students and teachers. Teachers employ strategies that are diverse and responsive, such as differentiated instruction, in an effort to meet the learning needs of all students. Instruction is supported by on-going **assessments** that are both reliable and valid. Teachers modify and adjust instruction and make curriculum decisions based on sound assessments. Students use assessment results to inform their own learning. Parents are aware of their student's performance on a regular basis through individualized and standardized progress reports, meetings, and other communications with the school. The community is informed about school-wide student performance on statewide tests and other measures of success.

CHS has an efficient and comprehensive **data collection** system that interfaces with the other Colchester schools. Data regarding curriculum, instruction, and assessment are collected and reviewed regularly to inform practice and make decisions at every level from the individual student to the school as a whole. Teachers and administrators build program budgets, allocate resources, and support programs based on data they have collected and analyzed.

The **school facilities**, including the school building itself, are safe, secure, clean, inviting, and well maintained. They provide a setting for teaching and learning that is comfortable and aesthetically pleasing. Students are fully involved in the school's definition of inviting, comfortable, and aesthetically pleasing. They take ownership and display pride in what they have done to impact the physical environment. Long range planning and funding ensure that the school facilities have the requisite supplies and equipment and that teachers and administrators have the infrastructure necessary to implement the school's mission. Because the school is well equipped and maintained, everyone experiences a sense of pride and responsibility in their daily use of the school facilities.

## Student/Parent Vision

### In the year 2005...

**Students** exhibit kindness and school pride, have fun, and demonstrate a love of learning. Students become engaged in student government through structures that provide them genuine opportunities to express concerns and opinions to their own representatives. Students earn trust and, as a result, they are rewarded with added privileges and freedoms. These privileges and freedoms are not limited to seniors. Students and faculty together engage in creative problem solving and conflict resolution. This process promotes diversity and addresses the shared interests of the student body. Students work with the faculty, staff, and administration to create a better learning environment, including improved relationships and enhanced opportunities for students to influence the direction and the functions of the school. Students also are connected to the community outside of the school through a number of non academic activities.

**Teachers** are dedicated, open, and available to all students. They encourage a safe, respectful, and productive learning environment through effective classroom management. They promote a trusting, open, and tolerant setting for learning in which they challenge each individual student. As professionals, teachers and administrators model life-long learning and appropriate adult behavior. They collaborate with students in achieving their individual personal goals and engage students by providing opportunities for interactive learning that goes beyond the classroom.

**Parents** support and demonstrate pride in the school and their children through their personal involvement and investment. They are aware and informed regarding what their students need and what the school has to offer. They demonstrate pride in the accomplishment of students and voice high expectations for teaching and learning. Parents are caring, understanding, and proactive. They are good listeners who encourage independence on the part of their children.

The **climate** of the school is welcoming, open, positive, and tolerant. The physical environment is aesthetically pleasing. Students feel safe and comfortable in the school and at events after school as well. The climate for learning provides high interest, high engagement for students.

CHS offers a wide variety of **academic programs** that reflect the needs and desires of individual students. Due to the diversity of the student body, offerings include, but are not limited to, classes in technology, fieldwork, and hands-on learning, as well as courses at the technical centers and other local schools. The faculty and administrators recognize individual student accomplishments in a variety of ways. Furthermore, teachers teach in ways that address all learning styles and promote independence and creativity, while actively preparing students for the future. Classes are enjoyable, while challenging students to reach their greatest potential. The community, through the annual school budget, provides ample funding for both academic and non-academic programs.

**Non-academic programs** are fun, special, encouraged, welcoming, exciting, respectful, and broad based. They are supportive of students and enable them to set attainable goals. Friendship and sportsmanship are key components of these successful programs. The ultimate goal of non-academic programs is that students develop leadership, collaboration, and social skills. These skills promote life long support for responsible citizens and people.

The CHS **building and facilities** are clean, well maintained, and promote a safe environment for all students. The school is a welcoming and aesthetically pleasing space, decorated with plants and student work. The library is an inviting spot, the academic nerve center of the school, where students and faculty gather formally and informally to explore academic and personal pursuits. Students congregate in their own lounge—open to all with a relaxed, nondiscriminatory atmosphere, similar to that of the Writers Workshop. State of the art technology is available to all students throughout the building (classrooms, computer labs, and the library). The temperature and the climate in the rooms is appropriate to the time of the year. Bathrooms, locker rooms, and the cafeteria are sanitary and well maintained. In the cafeteria, healthier and more diverse lunch options are available for purchase. Students see themselves as responsible, respectful, and prideful of the space they inhabit and the resources they have available.

# COLCHESTER HIGH SCHOOL GRADUATION REQUIREMENTS 2004

## Class of 2005, 2006, 2007, 2008

English	4.0 (Gateway Writings)
Social Studies	3.5 (American History, Senior Seminar)
Science	3.0 (Science 9, Biology, Physical Science)
Mathematics	3.0 (Algebra, Geometry or Integrated I/II)
Keyboarding	0.5
Computer Applications	0.5
Fine Arts	1.0
Health	0.5
Physical Education	1.5
Electives	<u>7.0</u>
<b>Total</b>	<b>24.5</b>

**NOTE:** The courses listed in the Program of Studies are proposed offerings. Enrollment and staffing may result in changes and deletions. We are committed to offer a broad range of courses that enable all students to meet the graduation requirements.



## **Recommended Course of Study for Admission to Four Year Colleges**

4 Years of English

2-3 Years of Laboratory Science

4 Years of Mathematics (Including Algebra II/Trig)

3.5 Years of Social Studies

3 Years of the same World Language

## **Recommended Course of Study for Admission to Highly Competitive Colleges**

4 Years of English

3-4 Years of Laboratory Science

4 Years of Mathematics (Including Calculus)

4 Years of Social Studies

4 Years of the same World Language

**PLEASE NOTE:** In many cases the recommended course of study is not merely a recommendation; it is a requirement of highly and competitive colleges.

## 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. High school students may earn an Advanced Placement International Diploma through successful performance (score of 3 or better out of 5) on advance placement examinations in four or more full year courses. The examinations must be distributed among three of the five areas noted below. Two examinations must be taken in area I, one in areas II or III, and one from any area not already used. The five areas are the following:

Area I	Languages (English, French, Spanish, Latin, German)
Area II	Sciences
Area III	Mathematics
Area IV	History & Social Sciences
Area V	Art, Music Theory

Whether students pursue the Advanced Placement International Diploma or not, 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 Guidance 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 must take the AP examination. At this time we recommend the following:

Middle School	Students pursue world language study (grades 7 and 8 with B+ or better) and Connected Math (with B+ or better).
Grades 9	Students enroll in the course of study for highly competitive colleges: Integrated Math II or Geometry
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 AP English, AP world language, AP European history, and areas II, III, or V courses provided that they meet the prerequisites.

## 2004 - 2005 Advanced Placement Offerings

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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
Area II Sciences	Biology Physics B	AP Biology AP Physics
Area III Mathematics	Calculus AB Calculus BC	AP Calculus I AP Calculus II
Area IV History & Social Sciences	U.S. History European History	AP U. S. History AP European History
Area V Other	Studio Art – General	Advanced Studio Art-AP

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# 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 acceptance in the work study program. 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. A student on an individual education plan may use the Options Program in somewhat different ways depending on the decision of the student’s team. Up to two credits may be applied toward elective graduation credit. Students may not use options credit to fulfill core graduation requirements.

## OPTIONS PROGRAM: A BLUEPRINT FOR THE FUTURE

### **Options Program**

**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.

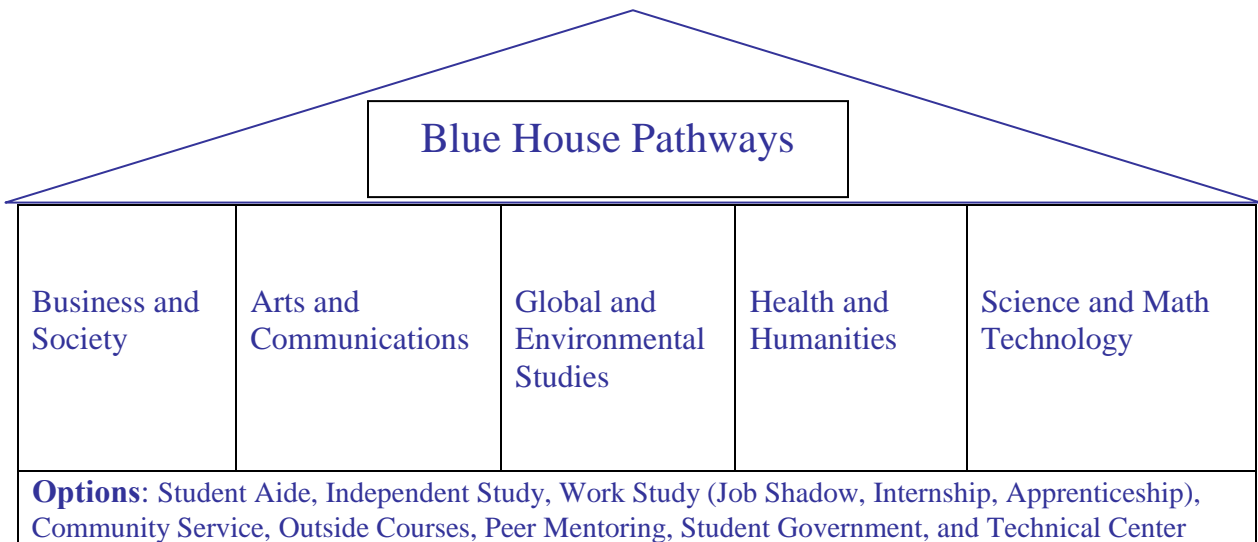
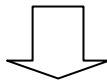
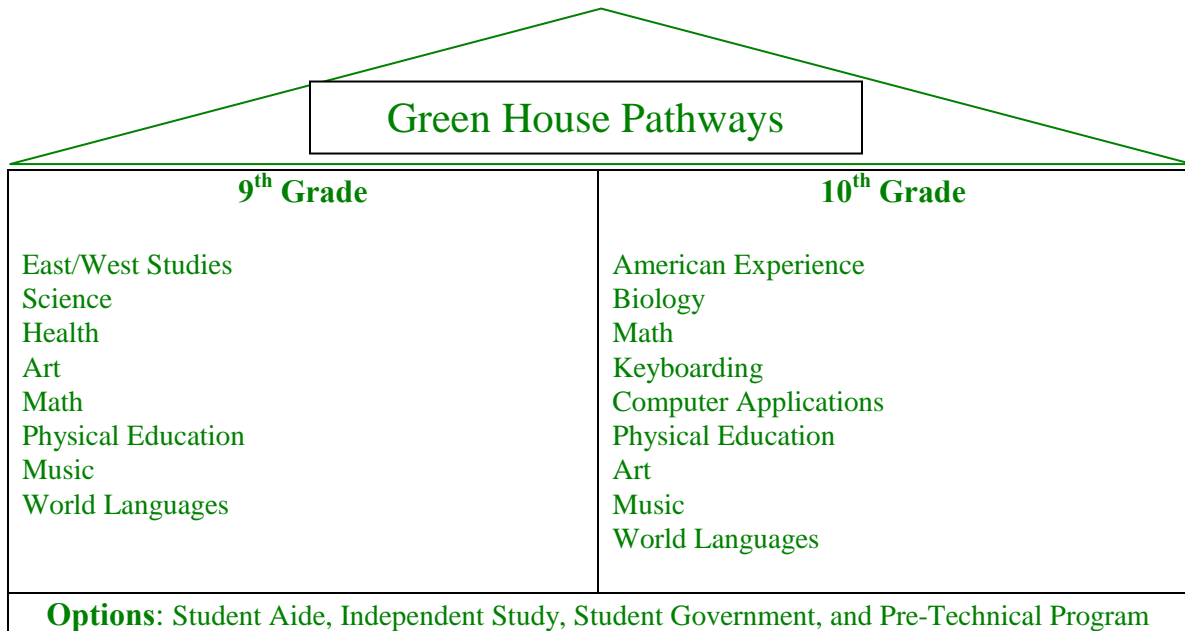
**External Credits:** Consult guidance, or the administration for guidelines regarding credit for summer school and night school. Students are not permitted to use BHS summer school credit to complete their requirements in grades 9 and 10 English and social studies.

**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. Completed proposals are submitted to the Team Leader, who oversees the content area of the proposal.

**Employment/Career Seminars:** Three seminars will be offered during the school year on various topics related to career exploration and employment skills.

# Colchester High School Pathways Program

Career Pathways are designed to assist students as they explore careers and other post-secondary choices. In the Blue House students have the **option** of choosing a career pathway suited to their interests and post-secondary goals. Pathways can provide students with the opportunity for in-depth career exploration. Pathways bring students, teachers, and content together in specialized ways. The following pages show the five Pathways and their related courses and careers.



## Business and Society Pathway

### Courses:

Accounting  
American Political Figures  
Art Courses  
AP European History  
AP American History  
Biology  
Business Law  
Chemistry in the Community  
Consumer Math  
Economics  
Media Studies  
Non-Fiction  
Philosophy  
Public Speaking  
R.E.A.L.  
Science 9  
Technical Writing  
Yearbook  
Workforce 2000  
World Languages

### Selected Careers:

Advertising Specialist  
Accountant  
Bookkeeper  
Financial Advisor  
Internet Specialist  
Interpreter/Translator  
Journalist  
Manager  
Marketing Specialist  
Public Relations Specialist  
Retailer/Wholesaler  
Sales Clerk  
Statistician  
Stock Broker  
Teacher  
Technician  
Travel Agent

## Arts and Communication Pathway

### Courses:

3-D Design  
2-D Design  
Art I  
Art II  
Band  
Chamber Choir  
Choir  
Creative Writing  
Drawing  
Film and Dramatic Literature  
French  
Jazz Ensemble  
Painting  
Popular Literature  
Photography  
Pottery I  
Pottery II  
Psychology  
Public Speaking  
Reading and Writing Poetry

Spanish  
Theatre  
Video Production  
Yearbook

### Selected Careers:

Agent  
Art Designer  
Cartoonist  
Choral Director  
Commercial Artist  
Copy Editor  
Graphic Artist  
Interpreter  
Journalist  
Musician  
Public Relations Specialist  
Radio/TV Announcer  
Travel Agent  
Visual Artist  
Writer (newspaper, magazine...)

## Global and Environmental Studies Pathway

### Courses:

Algebra II  
Algebra II/Trig  
Algebra III  
AP European History  
AP American History  
Biology  
Chemistry  
Geography  
History of Africa and Asia  
Integrated III  
International Politics and the United Nations  
Non-fiction Writing  
Photography  
Psychology  
Science 9  
Statistics and Probability  
Technical Writing  
World Languages  
World History I  
World History II

### Selected Careers:

Activist  
Anthropologist  
Archaeologist  
Border Patrol  
Chemist  
Diplomat  
Environmental Advocate  
Fireman  
Forester  
Game Warden  
Geologist  
Immigration Specialist  
Importer/Exporter  
Interpreter/Translator  
Journalist  
Laboratory Technician/Bio-Testing  
Politician  
Surveyor  
Tour Guide/Organizer  
Travel Agent

## Health and Human Services Pathway

### Courses:

Action Physics  
Algebra II  
Algebra II/Trig  
Algebra III  
AP Biology  
AP Calculus I  
AP Calculus II  
AP Physics  
Biology  
Chemistry  
Engineering Physics  
Human Ecology  
Integrated III  
Life 101  
Non-Fiction Writing  
Psychology  
Philosophy  
Science 9  
Sports and Society  
Technical Writing

World Languages

### Selected Careers:

Bio-chemist  
Coach  
Emergency Medical Technician  
Fireman  
Forensics Specialist  
Genetic Counselor  
Hospital Administrator  
Interpreter  
Laboratory Technician/Bio-Testing  
Lawyer  
Medical Doctor  
Medical Records Clerk  
Midwife  
Nurse Practitioner  
Police Officer  
Public Health Specialist  
Psychologist  
School Counselor  
Social Worker  
Trainer

## Science, Math, and Technology Pathway

### **Courses:**

3-D Design  
Action Physics  
Algebra II  
Algebra II/Trig  
Algebra III  
AP Biology  
AP Calculus I  
AP Calculus II  
AP Physics  
Biology  
Chemistry  
Computer Programming with Visual  
Basics  
Computer Applications  
Engineering Physics  
Integrated III  
Statistics and Probability  
Technical Writing  
Video Production

### **Selected Careers:**

Automobile Machinist  
Architect  
Astronomer  
Biologist  
Botanist  
Chemist  
Computer Technician  
Data Analyst  
Engineer  
Graphic Designer  
Industrial Designer  
Lab Technician  
Machinist  
Mathematician  
Mechanic  
Network Administrator  
Researcher  
Statistician  
Web Design



## 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 Initial-Eligibility Clearinghouse. The Clearinghouse was established as a separate organization by the NCAA member institutions in January 1993. The Clearinghouse ensures consistent interpretation of NCAA initial-eligibility requirements for all prospective student athletes at all member institutions.

### Your Responsibility as a Prospective Student Athlete

<b>It is your responsibility to make sure the Clearinghouse has the documents it needs to certify you. These documents are:</b>	Your completed and signed Student Release Form and fee	Your official transcript from every high school you have attended	Your ACT or SAT scores
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### 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 the end of your junior year in high school. You must meet certain course requirements. They include successfully completing a core curriculum of at least 13 academic courses in the following categories: **English, mathematics, social studies, and science**. You must also meet minimum requirements for GPA and SAT, ACT test scores. Students should obtain a copy of the *NCAA Guide for the College Bound Student-Athlete* in the guidance office.

The following symbols are used to identify acceptable courses.

- ◆ Approved course
- √ Under review for approval

# ACADEMIC COURSE OFFERINGS

## Science

For graduation, students are required to complete three credits including Science 9, biology, and physical science. In addition, several high interest electives are available for students who are interested in life science, the environment, and forensics. The Science Department is in the process of developing Pathways that include integrated science, math, and technology and health and human services.

### **#110 Science 9:√**

This course is designed as an introduction to physical and earth science. Each of the topics taught in this course will help students to understand how science is being used to solve problems or improve the quality of life in the world today. The primary function of this course is to develop students' abilities to obtain and apply scientific knowledge to real-life situations, to foster interest in science, and to provide a strong foundation of knowledge and skills for future science studies. Throughout the course, the focus will be on organizing information, thinking critically, practicing scientific methodology, and representing and analyzing data. These skills are infused throughout the major units taught in this course.

All students are challenged by a common hands-on, inquiry-based curriculum that uses differentiated instruction to teach science. Students are encouraged to set and meet their own goals and achieve their highest potential. Differentiated instruction consists of adjusting the course's content, process, and products according to students' different readiness levels, interests, and learning styles.

Science 9 is a heterogeneously grouped class: students are grouped with the intention that each class includes the diverse range of students present in the entire freshman class.

The teachers of Science 9 understand the key to differentiating instruction: knowing their students well so they can meet them where they are and take them as far as they can go. Parents, teachers, and students are partners who work together to ensure that all students work hard and experience success in a challenging environment.

**Prerequisite: None. Full year. Credit: 1 Science**

**#125 Biology: ♦**

Students in this biology program will develop skills in reading, writing, and science applications. Content emphasis is on the broad concepts of biology rather than memorizing names and facts. Emphasis is also placed on work/study skills, library research, and on keeping a notebook. Students will be required to complete some outside readings and homework. Career related opportunities will be discussed.

**Prerequisite: None. Full year. Credit: 1 Science**

**#130 Biology (lab): ♦**

In biology, students will study basic biochemistry and how living things relate to and interact with each other. Microscopic plants and animals are examined to provide understanding of cellular functions and how they affect and contribute to the functioning of the organism. Students will survey the plant and animal kingdoms and study plant physiology. Laboratory exercises are an integral part of the program and are used to provide detailed knowledge of selected topics. The numerous career opportunities available in biology and associated fields will be considered throughout the year. This laboratory course meets the science requirement for college admission. Students will complete assignments from texts and articles and will engage in independent work of several kinds.

**Prerequisite: C or better in grade 9 science course or teacher recommendation. Full year. Credit: 1.25 Science**

**#135 Accelerated Biology (lab): ♦**

This is a fast paced course that approaches biology from a human perspective. The topics covered in depth are evolution, homeostasis, energy, matter and organization, continuity, development and ecology. Students move progressively from designing portion of laboratories to researching and conducting an original experiment. Varying research/presentation projects are assigned over the course of the year. Accelerated biology is designed for students who are able to work independently. Successful completion of the course should leave the student with a sense of academic confidence about studying independently and applying biological concepts.

**Prerequisite: B or better in Science 9 and teacher recommendation. Full year. Credit: 1.25 Science**

**#148 Chemistry in the Community: ♦**

This lab-based course developed by the American Chemical Society focuses on chemistry related societal issues. Students learn the core concepts and skills of chemistry while exploring areas of their community where chemistry is at work. Emphasis is placed on math skills, decision-making, creative problem solving, and critical thinking.

**Prerequisite: Passing grade in biology. Full year. Credit: 1 Science**

**#145 Chemistry (lab): ♦**

This 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, classroom discussions and laboratory activities. Students are expected to use algebra and mathematical skills as they relate to chemical concepts. Topics covered in this course include chemical nomenclature, stoichiometry, periodic properties, atomic structure, organic chemistry, basic gas laws, acid-base chemistry and chemical thermo dynamics. The laboratory portion of this course is essential to developing an in-depth understanding of chemistry. In the lab, students are engaged in experiments, which further develop and enhance concepts covered in class by being engaged in the work of real scientists. Computer software applications and calculator-based experiments are utilized throughout the year.

**Prerequisite: C or better in Biology or Science 9 and Integrated I or Algebra I and recommendation of previous science teacher. Full year. Credit: 1.25 Science**

**#150 Accelerated Chemistry (lab): ♦**

This is a college preparatory, lab course that 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. High expectations are placed on each individual in terms of their work ethic. The course includes extensive college level laboratory work and individual research on chemistry-related societal issues. Students will be using a variety of technology throughout the year. The first half of the year will focus on general concepts of chemistry (naming compounds, stoichiometry, atomic structure, and periodic properties) and will progress through the fundamentals of Organic Chemistry. The second half of the year focuses on Physical Chemistry issues including: thermodynamics, equilibrium, acid-base reactions, redox reactions and nuclear chemistry.

**Prerequisite: B or better in Biology or Science 9, B or better in Integrated I and Integrated II or Algebra I, and concurrent enrollment in Algebra II or Integrated III and recommendation of previous science teacher. Full year. Credit: 1.25 Science**

**#161 Action Physics: ♦**

Action Physics is a college preparatory, concept-based course for students who may attend a 2 or 4 year college, and who are curious about the world (and the universe) around them. A lab approach will be used to explore topics such as motion, force, momentum, and energy. The mechanics of simple machines, properties of matter, heat, light, sound, and electricity will also be examined and discussed. Computer technology and calculator-based-labs (CBL's) will play a large part in data collection in Action Physics, and students will learn to use spreadsheets and graphing software. Physics concepts will be applied to everyday life to enhance understanding of sports such as mountain biking, SCUBA diving, and mountain climbing.

**Prerequisite: 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade, Algebra I or Integrated Math. Full year. Credit: 1 Science**

**#160 Engineering Physics (lab): ♦**

Physics is the study of matter and energy and the interrelationship between the two. This trigonometry-based course includes a detailed study of mechanics and electromagnetism and emphasizes proper laboratory technique. The use of computers and graphing calculators in physics is reinforced through their application in the areas of simulation and data analysis. A computer-based laboratory component enables students to apply their skills and knowledge in the area of research and development. Students will be involved in basic design procedures and the development of original ideas. Brainstorming in groups, or on an individual basis, will be oriented toward problem-solving and the physical development of solutions to problems.

**Prerequisite: Algebra II/Trigonometry or Algebra III taken previously. In addition, Engineering Physics students must be taking a math course concurrently with physics. Full year. Credits: 2. (1.25 Science, .75 Technology)**

## **BLUE HOUSE ADVANCED PLACEMENT COURSES**

### **#175 AP Biology (lab): ♦**

This course complies with the College Board Advanced Placement guidelines in biology. At the end of the year the students take the advanced placement examination. The course content is rigorous and requires extensive time outside of class. In addition to the reading of a college biology textbook, students will design, perform and write up numerous laboratories, write a major research paper, take several topic related field trips, and do independent research work, and many in-depth independent activities to enhance their learning.. (May alternate years depending on enrollment.)

**Prerequisite: B or better in biology lab and teacher recommendation. Full year. Credits: 1.5 Science. Offered pending enrollment at the minimum required.**

### **#163 AP Physics (lab): ♦**

This Advanced Placement Physics course is designed to meet the needs of students who have achieved a high level of success in mathematics and science. The college-level course will cover important concepts found in the areas of mechanics, waves, optics, electricity and magnetism. Students will be expected to conduct experiments to study various phenomena, and research techniques will play a major role in the course. In addition, the computer-based laboratory component enables students to further develop their engineering skills. AP Physics students will be encouraged to take the AP Physics Examination (calculus-based).

**Prerequisite: Calculus. (Calculus may be taken concurrently with AP Physics). Full year. Credits: 2 Science**

## Mathematics

Students are required to complete three credits of mathematics, including the mastery of the concepts of geometry. Most students transition from the middle school into Integrated Math I at the high school. At this time students who have successfully pursued Algebra at the middle school may choose Geometry at the high school. Middle school students, who successfully complete Algebra and/or Geometry, will be granted a total of one credit (pass) upon entering the high school.

The Math Department recognizes that, in many cases, freshman and sophomores have different needs than juniors and seniors. The Math offerings attend to these differences. All students will be challenged in courses and by teachers that use differentiated instruction to teach their classes. Teachers of ninth grade math courses are well trained in this approach which adjusts the course's content, process and products according to student's different readiness levels, interests, and learning styles. The department's goal continues to be knowing their students well so that teachers can meet students where they are and then take them as far as they can go.

The Math Department will continue to encourage students to pursue their interests through math electives and/or the advanced level offerings.

### **#216 Transitions:**

This course is recommended for students who need more time and opportunities to master math concepts and skills. It integrates basic algebra, geometry, probability, and statistics, number concepts and problem solving. The course is adapted to the pace of the learner. Enrollment is by recommendation only. Students may reenroll and receive credit in Transitions in order to meet the geometry graduation requirement.

**Prerequisite: Teacher and guidance recommendation. Full year. Credit: 1 Math**

### **#211 Integrated Math I: ♦**

Integrated Math provides a rigorous course of study. Students will cover mathematical skills and concepts which students will encounter in other high school math classes and beyond. This course is recommended for ninth grade students. It introduces algebra, geometry, probability, statistics, and problem solving using technology. Each unit presents these strands in an applied context, such as patterns in data, linear models, patterns in change, and patterns in space and visualization.

**Prerequisite: Teacher recommendation. Full year. Credit: 1 Math**

### **#212 Integrated Math II: ♦**

This is the second year of the Integrated Math Program. It continues to build on algebra, geometry, statistics, and probability concepts and skills. It also addresses the interpretation of data, ratio, and matrices. The program integrates computer applications and graphing calculators into instruction. Students meet the geometry requirement.

**Prerequisite: Passing grade in Integrated Math I. Full year. Credit: 1 Math**

### **#245 Algebra I: ♦**

This course covers the mathematical concepts the student will encounter in other high school courses and beyond. Equations, inequalities, graphing, informal geometry, probability, data analysis, and matrices are introduced. Considerable emphasis is placed on the process of problem solving rather than memorization of procedures.

**Prerequisite: Teacher recommendation. Open to grades 9-10. Full year. Credit: 1 Math**

**#260 Geometry: ♦**

Geometry is a heterogeneously grouped class in which instruction is differentiated based on readiness, interest and learning styles. Students work in groups to write definitions of geometric terms and to discover conjectures about geometric figures. Major topics studied include geometric art, inductive reasoning, construction, flowchart proofs, congruence, right triangles, area, volume, similarity and circles. *The Geometer's Sketchpad* computer software is utilized where appropriate.

**Prerequisite: Passing grade in Algebra I and teacher recommendation. Credit: 1 Math**

**#223 Consumer Mathematics: Personal Financing**

This semester course is designed to help students learn how to best handle their personal finances. Areas of study will include: earning money, personal banking, making purchases, creating a budget, buying food and nutrition. This course is valuable to all students regardless of their career objectives.

**Prerequisite: None. Semester. Credit: .5 Math. Recommended for Seniors only. Students taking this course should have already earned two math credits.**

**#224 Consumer Mathematics: Purchasing**

This semester course is designed to help students with different mathematical situations they will face in their adult life. Units will include: buying a car, renting an apartment, purchasing a home, filing taxes, investing money, and insurance. All students can benefit from this course to become better prepared citizens.

**Prerequisite: None. Semester. Credit: .5 Math. Recommended for Seniors only. Students taking this course should have already earned two math credits.**

**#213 Integrated Math III: ♦**

This is the third year of the Integrated Math Program. It continues to build on multiple ideas from the four strands: algebra and functions, geometry and trigonometry, statistics and probability, and discrete mathematics. This course continues to emphasize mathematical modeling and modeling concepts including data collection, representation, interpretation, prediction and simulation.

**Prerequisite: Successful completion in Integrated I and II. Full year. Credit: 1 Math**

**#250 Algebra II: ♦**

This course begins with a review of **Algebra I** and the quadratic formula. New topics stressed include irrational and complex number systems, solutions of higher order equations, systems of equations including matrices, and probability/statistics.

**Prerequisite: Teacher recommendation and a C or better in Algebra I and Geometry and successful completion of Integrated Math I and II. Full year. Credit: 1 Math**

**#255 Algebra II/ Trigonometry: ♦**

This course begins with a review of **Algebra I** and the quadratic formula. New topics stressed include irrational and complex number systems, solutions of higher order equations, systems of equations, trigonometry, and probability/statistics.

**Prerequisite: B+ in Algebra I and Geometry or teacher recommendation. Full year. Credit: 1 Math**

**#252 Algebra III: ♦**

This course is designed for students who wish to continue their study of mathematics beyond **Algebra II**. The properties of right triangle trigonometry and their applications to science form the basis for much of the first part of the course. The second major topic is the study of functions, (quadratic, logarithmic, exponential, trigonometric), and relations (conics). The final topic, sequences and series, provides the basics needed for pre- calculus.

**Prerequisite: C or better in Algebra II or teacher recommendation. Full year. Credit: 1 Math**

**#279 Pre-Calculus: ♦**

This course is designed to prepare the student for Calculus. The concern of this course is the student's mastery of the skills of manipulative algebra and a thorough familiarity with the concepts of function with emphasis on the elementary functions. In analytic geometry the student develops the dialogue between algebra and geometry, allowing each to illuminate and extend the other.

**Prerequisite: C or better in Algebra II/Trigonometry, Algebra III or teacher recommendation. Full year. Credit: 1 Math**

**#576 Computer Programming with Visual Basic: √**

This course introduces the exciting world of programming with *Visual Basic*. Students will learn how to create and design interfaces, using variables, procedures and design applications. You will learn how to master the PC. This course will lay the groundwork for learning other computer languages in the future. Computer programmers are in high demand and as we move through the 21<sup>st</sup> century, the need for programmers will increase as the technology becomes more advanced. Get your foot in the door to this exciting new world.

**Prerequisite: Successful completion of Algebra I or Integrated I and Keyboarding. One Semester.Credit: .5 in Math or Technology**

**#264 Statistics and Probability:**

This course will build upon the student's experiences in statistical thinking in earlier math courses. Emphasis will be placed on concepts and statistical reasoning rather than a "cookbook" approach to applying formulas. Topics will include sampling strategies, statistical significance, experimental design, the normal distribution, t-distribution, chi-square distribution and confidence intervals. Students will also learn to analyze a situation and determine the probability of an event taking place through a variety of methods.

**Prerequisite: Successful completion of Geometry or Integrated Math II. One Semester. Credit: .5 in Math. This course should be taken as an elective and not as a replacement for Algebra II or Integrated Math III.**

## **BLUE HOUSE ADVANCED PLACEMENT COURSES**

**#280 AP Calculus I: ♦**

This course is designed to meet the needs of students who have achieved a high level of success in mathematics and science. In this college-level course, the four main concepts (derivatives, limits, definite integrals, and indefinite integrals) are first studied graphically and numerically using the graphing calculator. Once a basic understanding of the concepts is reached, the traditional algebraic approach is presented using more and more complicated functions. Students are encouraged to take the AP Calculus (AB) exam.

**Prerequisite: Teacher recommendation and B or better in Pre-calculus. Credit: 1 Math**

**#281 AP Calculus II: ♦**

This course is designed to meet the needs of students who have successfully completed AP calculus. The course begins with a review of differentiation and its applications and then continues with a study of advanced techniques and applications of integration, differential equations, parametric equations, polar coordinates, infinite sequences and series. Students are strongly encouraged to take the AP calculus (BC) exam which also provides them with a calculus AB-subscore.

**Prerequisite: Teacher recommendation. Full year. Credit: 1 Math. Offered pending enrollment at the minimum number required.**



# Humanities

## I. Green House English

The Green House/Blue House model recognizes that, in many cases, freshmen and sophomores have different needs than juniors and seniors. The Humanities offerings attend to these differences. All Green House students are challenged by a common and integrated curriculum. The freshmen curriculum focuses on Asian and European studies; second year students complete a full year of American Studies. Both years introduce students to the rigor of high school work within a supportive, team-taught setting, while preparing students for the independence they'll encounter in the Blue House. In order to move on to the Blue House English offerings, students must pass their humanities Green House courses and complete their Green House gateway writings to standard.

Upon successful completion of the Green House, students enter the Blue House, which offers a variety of semester-long courses that allow students to pursue their interests. With the exception of Advanced Placement courses, all Humanities Blue House courses are semester courses. With the exception of Advanced Placement courses, there are no exclusively advanced-level courses. Instead, students may choose to earn honors credit by committing at the course's outset to accelerated expectations through an orbital study.

## Grade Nine

### **#314 East/West Studies: ♦**

*East/West Studies* is a team-taught, two-credit course that integrates the study of English and social studies. Students are grouped with intention so that each class includes the diverse range of students present in the entire freshman class. All students are challenged by a common, concept-based curriculum that focuses on Asian and European studies. The defining element of the course is the style of instruction, known as differentiated instruction. Teachers of *East/West Studies* are well-trained in this powerful approach to teaching, which adjusts the course's content, process, and products according to students' different readiness levels, interests, and learning styles.

The teachers of next year's *East/West Studies* understand the key to differentiating instruction: knowing their students well so they can meet them where they are and then take them as far as they can go. In a differentiated classroom, parents play an active role helping teachers with this process. Parents, teachers, and students are partners who work together to ensure that all students work hard and experience success.

Before this school year ends, current eighth grade students will visit the high school during the school day to meet with their *East/West Studies* classes and teachers. At this time students will receive their summer reading and learn a little about the class.

**Prerequisite: Successful completion of the CMS English and social studies requirements. Credits: 2—1 English, 1 Social Studies**

## Grade 10

This year all sophomores will be enrolled in *The American Experience*, a course developed during the last two years within a research-based pilot program. The course does not change the well-articulated tenth grade curriculum. The course does change, however, the style of instruction and the grouping of students. Below is a more detailed description of the course.

### #363 The American Experience:

This course integrates the study of American Literature and the history of the United States. Students examine three historical periods in depth through three thematic lenses. Students in *The American Experience* are grouped with intention so that each class includes the diverse range of learners present in the sophomore class.

The defining element of this course is the style of instruction, known as differentiated instruction. Teachers of *The American Experience* are well-trained in this powerful approach to teaching, which adjusts the course's content, process, and products according to students' different readiness levels, interests, and learning styles. They understand the key to differentiating instruction: knowing their students well so they can meet them where they are and take them as far as they can go. In a differentiated classroom, parents play an active role helping the teachers with this process. Parents, teachers, and students are partners who work together to ensure that all students work hard and experience success.

**Full Credit. Credits: 2. 1 English, 1 Social Studies**

## Grade Nine and Ten

### # The Strategic Reader:

This course is designed for students who need support in order to become successful high school readers. Students will experience a curriculum tailored to their individual needs. Students will read widely while developing a repertoire of reading strategies that will help them increase comprehension and fluency. Using results from the *New Standards Reference Exam* and a diagnostic reading assessment, the high school will identify students eligible for this course and then contact their parents to see if this course is a good match.

**Prerequisite: None. Full Year. Credits: 1 Elective. This course is limited to ninth & tenth grade students only.**

## II. Blue House English

### Requirements

Although the Humanities Blue House offerings empower students to select from a variety of courses, students must be careful to meet the following requirements.

1. During all four of their Blue House semesters, juniors and seniors must be enrolled in an English class.
2. By the end of those four semesters, students must have taken two literature courses and two writing courses.

To help students select their courses wisely, the courses are listed according to their category: literature, writing, or literature & writing. The latter category includes semester-long courses that can count either as literature or writing courses. The advanced placement courses fulfill both categories as well, and their course descriptions are listed separately from the semester courses.

With the exception of Advanced Placement courses, though, there are no exclusively accelerated courses in the Blue House. Instead, students may choose to earn honors credit by committing to perform at an honors level, which requires students to complete an honors contract at the course's outset that indicates students' willingness to work independently and meet raised standards.

The Blue House English course descriptions are organized in the following manner:

### Literature

### Writing

### Literature & Writing

### Advanced Placement

### English Language Learners (ELL)

## Literature

### #318 Popular Literature: ♦

Popular literature has given the literary community a wealth of well-written and intelligent books. This course will explore some of these works, question their literary value, and explore why they were/are so popular. Students will develop reading skills, practice writing literary criticism, and learn to understand the value of literature in the time and place it was written. Students are expected to complete the Blue House writing.

**Prerequisite: Successful completion of American Studies/Accelerated American Studies. Semester. Credit: .5 English**

### #671 Theatre: Literature from Page to Stage: ♦

The word theatre comes from the Greek word, *theatron*, meaning "seeing place." The theatre has been a major part of societal history since the beginning of time. It has reflected societal problems and historical lessons, entertained the masses and informed cultures throughout the world for twenty-five centuries. Students will read and perform the texts. Each play will be set in its historical context. Students will develop their literary analysis skills and come to understand dramatic roles. They will also understand the function of technical theatre in relation to the production as a whole. They will practice writing critical responses about the theatre, literary reviews, personal responses and playwriting. Students are expected to complete the Blue House writing.

**Prerequisite: Successful completion of American Studies/ Accelerated American Studies. Semester. Credit: .5 English or Fine Arts**

## Writing

### **#359 Creative Writing: ♦**

Students in this course will explore both fiction writing and creative non-fiction writing (which includes memoir and personal essay.) As well as 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 on a consistent basis, as well as keep a “writing book” to record impressions, conversations, ideas, and possible topics for writing. Each student will be encouraged to find his or her own “voice” as a writer. Readings of students’ work or pieces by other writers they have chosen will allow students to learn the art of oral interpretation. In addition to developing their own writing, students will read what writers have to say about writing. Students are expected to complete the Blue House writing.

**Prerequisite:** Successful completion of American Studies/Accelerated American Studies. Credit: .5 in English

### **#362 Non-fiction Writing: ♦**

This course will offer students an in-depth study of most aspects related to the media field highlighting print journalism, with secondary emphasis on radio and television journalism. A major part of the course will center on the practice of writing through pre-writing/conferencing/editing, emphasizing different journalistic styles including news, feature, sports, editorials, and reviews. Students will read extensively. They will also study journalism philosophy, interview skills, desktop publishing, advertising, headlining, layout and design, and current events. Students in this class will be responsible for the entire production process of the CHS student newspaper, *The Lakeside Voice*. Students are expected to complete the Blue House writing.

**Prerequisite:** Successful completion of American Studies/ Accelerated American Studies. Semester. Credit: .5 English

### **#416 Media Studies: ♦**

Students enrolled in this course will learn about the influence of the media on their lives. Students will produce several major projects that analyze and synthesize the ways we, as a society, are manipulated by the power of the media. They will examine the effect of newspapers, television, radio, film, print advertisements, talk shows, and commercials on adults and children. They will be expected to read for a variety of purposes and to write a research paper, persuasive essays, and personal narratives. Students are expected to complete the Blue House writings.

**Prerequisite:** Successful completion of American Studies/ Accelerated American Studies. Credit: .5 in English

### **#383 Technical Writing: ♦**

This course will help students become proficient in the aspects of writing that are expected of individuals in the competitive work environment of the 21<sup>st</sup> century. Students can expect to cover a multitude of practical writing skills including: college application essays, the resume, cover letter, employment applications, and other necessary workplace writing skills. Students will self select reading books and individual-reading goals will be set. Students may have the opportunity to meet various community business people and practice employment interview skills. Students are expected to complete the Blue House writing.

**Prerequisites:** Successful completion of American Studies/Accelerated American Studies. Credit: .5 in English

## Literature and Writing

### #337 Public Speaking: ♦

“All the great speakers were bad speakers at first.”  
– Ralph Waldo Emerson.

Most of us dread speaking in front of groups. Yet, 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 cleared the hurdle of that 'speaking phobia' and be well on their way to refining their newfound speaking/listening skills. Students will deliver a wide variety of speeches, read self-selected books and write and revise many papers, including the Blue House writing.

**Prerequisite: Successful completion of American Studies/Accelerated American Studies. Credit: .5 English**

### #384 Reading and Writing Poetry: ♦

“Every poem is rooted in imaginative awe.”  
--W.H. Auden

This course explores the imaginative awe of poetry. Students will read and write poetry to deepen their appreciation for the power and pleasure of poetic language. In doing so, students will be encouraged to locate their poetic voice and develop a poetic aesthetic. All students will read poems *as* writers, and will experiment with the styles and techniques of the poets read. This course will emphasize contemporary poetry, especially living poets, but to assure an understanding of poetry's tradition, we will read poems representing various styles and time periods. Moreover, students will learn the art of oral interpretation and will be asked to perform poems. All students will create a poetry book, which will include their poems and other works that are significant to the students. The class will conclude with a public reading where all students will read a selection of the poetry they produce during the semester. Students are expected to complete the Blue House writing.

**Prerequisite: Successful completion of American Studies/Accelerated American Studies. Credit: .5 English**

### #360 Film and Dramatic Literature: ♦

Film and Dramatic Literature approaches the study of movies in four ways. We will analyze films in order to understand filmmaking. For example, we will think about why filmmakers choose certain camera angles, sound techniques, and editing processes to exercise their art. We will also look at films from a historical perspective; we will watch silent films through to modern movies. Additionally, we will consider various genres of film: comedies, westerns, musicals, mysteries, etc. Finally, we will consider classic books that have been made into films. Written analyses of various films are a significant component of our work together.

Film is a form of text. Students in Film and Dramatic Literature will employ many of the same strategies that all scholars use when reading, i.e., predicting, interpreting, and questioning the “text”.

Film is also literature, and as such, we will consider those elements of character, theme and narrative strategies that film shares with traditional literature, as well as those that are unique to film.

Sometimes when students enroll in a film class, they expect to see movies that are current - or very recent offerings. This is not the case in Film and Dramatic Literature. The films we see, for the most part, have stood the test of time and therefore are considered classic. Ideally, students who enroll in this class should be interested in the art of films - as well as their entertainment qualities. We will watch movies, as well as think, talk and write about them.

**Prerequisite: Successful completion of American Studies/ Accelerated American Studies. Semester. Credit: .5 English**

## **BLUE HOUSE 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; therefore, it is possible for industrious students to earn six English college credits before graduating from Colchester. Candidates 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 AP English: Language and Composition: ♦**

AP English Language and Composition allows students to write and study the literature of various forms and genres while examining the rhetorical strategies used by diverse authors. Students will study complex texts while writing rich and complex prose. To succeed in this course students must, to a high standard, study literature and write independently. Texts and writings are grouped by theme and form. Students will become skilled readers of 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 imaginative literature to popular culture. The theme for the year will be The Strategic Pen. 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.

**Prerequisites: Teacher recommendation; successful completion of summer reading and writing requirements. Credit: 1 English**

### **#382 AP English: Literature and Composition: ♦**

This course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. Students will consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. The theme for the year will be Views from the Borderlands. Borderlands arise when two or more incongruent people, places, or ideas engage with one another, resulting in new ways of seeing and thinking. By looking at literature through a borderland's lens, students will encounter people, places, and ideas that challenge them to reflect on their own notions about how the world works. Specifically, we will study the cultural, philosophical, gender, and psychological borders present in our readings. The critical analysis of texts through this thematic lens will awaken students to the ways that words shape our world and ourselves.

**Prerequisites: Teacher recommendation; successful completion of summer reading and writing requirements. Credit: 1 English**

**#995 English Language Learners (ELL):**

Foreign exchange students and students new to this country are provided with support in learning the English language and adapting to American culture. ELL instruction is a special method for developing English proficiency for social and academic purposes. Beginning level students need to develop sociolinguistic proficiency. This means that they must internalize the sound and grammar systems of English. ELL students do this by using them in social, survival, or life skill situations. Students are provided meaningful learning experiences with the constant use of visual, phonetic, and oral instruction. ELL instruction for intermediate and advanced students emphasizes thinking skills and strategy-based activities that include gathering information, summarizing reading for information and content, and problem solving. Instruction also puts emphasis on oral reading, comprehension, verbal skills, and study skills necessary for successful participation in English language classrooms.

**Full year. Credit: 1. Up to 2 credits of ELL may be applied to the graduation requirement in English.**

## Blue House Social Studies

### Requirements

Although the Humanities Blue House offerings empower students to select from a variety of courses, students must be careful to meet the following social studies requirements.

- During three of their four Blue House semesters, students must be enrolled in a social studies class.
- In order to graduate, you must earn a minimum of 1.5 credits of social studies while you are in the Blue House.
- Social studies classes fall into one of two categories: History or Social Sciences. Of the 1.5 social studies credits you must earn in the Blue House to graduate, .5 must be from the history category.
- During their senior year, all seniors must successfully complete *Senior Seminar: Civics*, a .5 credit course from the social sciences category. This is a graduation requirement. (Only seniors can enroll in *Senior Seminar: Civics*.)

To help students select their courses wisely, the courses are organized by category: History or Social Sciences. The advanced placement history courses fulfill both categories, and their course descriptions are listed separately from the semester courses.

With the exception of Advanced Placement courses, though, there are no exclusively accelerated courses in the Blue House. Instead, students may choose to earn honors credit by committing to perform at an honors level, which requires students to complete an honors contract at the course's outset that indicates students' willingness to work independently and meet raised standards.

The Blue House social studies course descriptions are organized in the following manner:

#### **History**

#### **Social Sciences**

#### **Advanced Placement**

#### **History**

#### **#399 American History: ♦**

Any tenth grade students who fail tenth grade humanities (*American Studies*) must take this year-long course, in addition to the Literacy Lab, to ensure that they meet the history standards. This course is designed to help struggling students achieve the tenth grade American History standards. New students entering school who have not met state requirements for American History will be enrolled in this class.

**Prerequisite: Full year. Credits: 1 Social Studies**

#### **#450 History of Africa and Asia: ♦**

With developments such as modern means of communication and international economic relations, the people of the world are becoming steadily closer. Nonetheless, we find ourselves under-informed about the cultures of people in other parts of the world. One way to begin to understand some things about "non-western" cultures is to investigate the history of some of these world areas that have traditionally been given short shrift. This course will be a brief introduction to the history of three areas of the world, China, India, and Africa. In each unit we will look at the history before European imperialism and then consider the impact of imperialism on each of these areas. At times in the course we will consider the difficulties of writing history about cultures that have not the same sense of history as the West. Students should expect to do research and present their findings to the class. Students are expected to complete a Blue House writing to standard.

**Prerequisite: Successful completion of American Studies. Semester. Credit: .5 Social Studies**



**#441 World History I: ♦**

In this course, students will study the development of civilization and how those developments relate to today's society. The first semester begins with the ancients and proceeds through the Roman Empire, paying particular attention to the study of Islam, the Crusades and the early Middle Ages. Students will conduct research and deliver oral presentations. This course will foster students' reading and writing skills as they analyze concepts in World History. Students are expected to complete a Blue House writing to standard.

**Prerequisites: Successful completion of American Studies. Credits: .5 Social Studies**

**#442 World History II: ♦**

In this course, the students analyze the high Medieval times, Renaissance, Reformation and the Age of Exploration and Colonization. It concludes with the era of Revolutions at the dawn of the 19<sup>th</sup> Century. This course will foster students' reading and writing skills as they analyze concepts in World History. Students will write formal papers and deliver oral presentations. Students are expected to complete a Blue House writing to standard.

**Prerequisites: Successful completion of American Studies. Credits: .5 Social Studies**

## **Social Sciences**

**#459 Geography I: ♦**

Geography is an integrated social studies discipline that brings physical and human systems together in a study of people, places, and environments. The course focuses on the investigation of the physical as well as the cultural, political, and economic horizons of our world. Throughout the semester, students will study current and past events to discover how human and physical geography shapes the environments in which people live. Students will also develop an understanding of how geography impacts the relationships between countries. The course fosters students' mapping, graphing, reading and writing skills. Students are expected to complete a Blue House writing to standard.

**Prerequisite: Successful completion of American Studies. Semester. Credit: .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 content addresses normal and abnormal development from infancy to maturity. Students will read extensively and complete an individual project or research paper. Films are presented, but most class time is spent in discussion. Students are expected to complete a Blue House writing to standard.

**Prerequisite: Successful completion of American Studies. Semester. Credit: .5 Social Studies**

**#468 Philosophy: ♦**

Philosophy is the rational 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 questions. This course will begin with a brief history of philosophy and then study some of the writings of the Greek philosophers Plato and Aristotle, particularly focusing on Plato's Republic. Selections from more modern philosophers such as Descartes and Locke will also be read. Finally, students will consider how non-Western thought relates to philosophy and about the Chinese tradition of Taoism. The reading in this course will be challenging, and students should be prepared to research, discuss, and write about a philosophical writer of their own choosing. Students are expected to complete a Blue House writing to standard.

**Prerequisite: Successful completion of American Studies. Semester. Credit: .5 Social Studies**

**#495 Sports and Society: ♦**

How have sports changed during the twentieth and twenty-first centuries? How have these changes reflected and shaped our changing society? These are the types of questions that students will explore in *Sports and Society*. Students will look closely at the evolution of sports during the last one-hundred years or so before considering how these changes have coincided with broad cultural shifts in our society. We'll begin with the history of various eras before examining the evolution of several issues, such as the integration of minorities and women into sports, the role of economics in sports, and the ethical expectations of athletes. Students will gather information representing both sides of these issues and others to help inform their understanding and analyses of the relationship between these issues and society. Students will deliver oral presentations and write formal papers. Students are expected to complete a Blue House writing to standard.

**Prerequisite: Successful completion of American Studies. Semester. Credit: .5 Social Studies**

**#469 International Politics and the United Nations:**

This course will examine the organization and function of the United Nations over the last half century. Students will study international conflicts, politics, and law while considering the role the United Nations has in resolving conflicts around the world. Students will expand their understanding of international relations by studying current issues facing various bodies of the U.N., including the General Assembly, Security Council and International Court of Justice. A major focus of the course is to develop a student leadership team responsible for planning, coordinating and implementing a Model United Nations. Students participating in this leadership team will master the essential elements of Model United Nations, which will include resolution writing, parliamentary procedure (Roberts Rule of Order) and legal procedure.

**Prerequisite: Successful completion of American Studies. Teacher Recommendation. Semester. Credit: .5 Social Studies.**

## Senior Graduation Requirement

### #471 Senior Seminar: Civics ♦

This course prepares seniors for the responsibilities of participating in a democratic society. Only seniors may take this course. *Senior Seminar: Civics* ensures that all students who graduate from CHS possess a firm understanding of how our local, state, and national government works. As part of this course, students will study the philosophical underpinnings of our democracy as well as the ways that our democracy works. Additionally, students will be familiarized with current issues facing our nation and the international community, so that when they leave Colchester High School they will be informed citizens. Finally, in order to earn credit for the course and graduate from CHS, all students are required to design and implement a service-learning project.

**Prerequisite:** Required of all seniors for graduation. Semester. Credit: .5 Social Studies

## BLUE HOUSE ADVANCED PLACEMENT COURSES

Colchester High School offers two advanced placement history courses: *AP American History* and *AP European History*. 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; therefore, it is possible for industrious students to earn six college credits in history before graduating from Colchester.

Candidates must have strong reading and writing skills, a love of history, and a willingness to work hard. Students in AP history will encounter a rigorous curriculum that requires tenacity and resourcefulness. Because of the nature of these courses, students must satisfy several prerequisites: grade of B+ or better in their previous history course, teacher recommendation, and completion of summer reading program. It is recommended that students pursue AP American History in the junior year and AP European History in the senior year. In addition, students who enroll in the two semesters of World History may be better prepared for the rigors of AP European History.

### #462 AP American 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 course work 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. Students enrolled in this course are required to take the advanced placement examination in American History.

**Prerequisite:** Successful completion of American Studies with a B+ or better, teacher recommendation, and completion of summer reading program. Full year. Credit: 1 Social Studies

### #447 AP European History: ♦

This course is designed to provide students with a basic understanding of events in European history from the early Renaissance to the Twentieth Century. The goal of this course is to prepare students to take the AP European History test in the spring. This is a high level course and the workload is more typical of a college course. Students are expected to read and understand a college level textbook, and the instructor gives lectures weekly. Students are expected to write weekly essays, participate in seminar discussions, do research, and complete oral presentations. Tests are given every two to three weeks.

**Prerequisite:** Successful completion of previous history course with B+ or better, teacher recommendation, and completion of summer reading program. Full year. Credit: 1 Social Studies

## World Language

### **#500 French I: ♦**

Students will practice expressing themselves in French in practical, real-life situations. 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 French culture and customs including the United States, Canada, and France.

**Prerequisite: Overall average of C or better. Full year. Credit: 1. One credit may be granted for two years (C or better) at CMS.**

### **#505 French II: ♦**

Students will continue to develop the 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 based on tapes, videos, newspapers, and other sources. The students will study the culture of France, Canada, and the former French colonies and will understand the role of Franco culture in the United States.

**Prerequisite: C or better in French I. Full year. Credit: 1**

### **#515 French III: ♦**

This course will continue to 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, Canada, and the United States. Students will develop further the functional skills necessary to use the language for work, travel, and personal goals.

**Prerequisite: C or better in French II. Full year. Credit: 1**

### **#520 French IV: ♦**

Students will experience some of the literature, history, and contemporary culture of the Francophone World. This course will continue to develop the students' breadth of language structures in the target language and build upon the students' prior language skills. Tapes, videos, and other related materials of the target culture will supplement regular classroom activities.

**Prerequisite: A commitment to speaking is essential. Teacher recommendation and a C or better in French III. Full year. Credit: 1**

**#525 Spanish I: ♦**

Students will practice expressing themselves in Spanish in practical, real-life situations. 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.

**Prerequisite: Overall average of C or better. Full year. Credit: 1. One credit may be granted for two years (C or better) at CMS.**

**#532 Spanish II: ♦**

Students will continue to develop the 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 based on tapes, videos, newspapers, and other sources. The students will study the culture of Spain and Latin America and will understand the role of Hispanic customs and peoples in the United States.

**Prerequisite: C or better in Spanish I. Full year. Credit: 1**

**#535 Spanish III: ♦**

This course will continue to develop the listening, speaking, reading, and writing skills of the previous level. Students will become more proficient in the language and more familiar with the Hispanic culture and civilization of Spain, Latin America, and the United States. Students will learn the career applications of second language study and will develop further the functional skills necessary to use the language for work, travel, and personal goals.

**Prerequisite: C or better in Spanish II. Full year. Credit: 1**

**#537 Spanish IV: ♦**

Students will experience some of the literature, history and contemporary culture of the Hispanic World. This course will continue to develop the students' breadth of language structures in the target language and build upon the students' prior language skills. Tapes, videos, and other related materials of the target culture supplement regular classroom activities.

**Prerequisite: A commitment to speaking is essential. C or better in Spanish III/teacher recommendation. Full year. Credit: 1**

## Guidance/Health

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. The other 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..

### **#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 stress management, communications and refusal skills, disease prevention, human sexuality, tobacco, alcohol and drug education, and personal health.

**Prerequisite:** Grades 9-10. One semester. Credit: .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 stress and time management, healthy lifestyles, apartment hunting, communication, personal resource management (time, money, energy), relationships, image and self-esteem and drugs/alcohol. Each topic will be covered in a workshop format that emphasizes hands-on activities and personal applications.

**Prerequisite:** Grades 11-12. One semester. Credit: .5 Health

## OTHER ELECTIVES

### **#749 Plan For Success:**

This course is designed to support students in being successful at CHS. A guidance counselor will teach the class in conjunction with presentations by additional CHS faculty and staff. Topics will range from academic achievement strategies to planning for the future. Classroom discussions will include relationship skills, communication skills, and healthy strategies for managing stress. Students will be guided and encouraged to actively participate in their high school education experience.

**Prerequisite:** None. Grades 9-10. Semester. Credit: .5

### **#109 SAT, College Planning & Beyond:**

This course is designed to help students plan for their future after high school. Students will prepare for the SAT by using a self-paced computer program, One-On-One with the SAT. The program includes test-taking tips and techniques, practice problems, and practice tests. Then students will use interest inventories and other surveys to identify jobs that match their interests. Using the Occupation Outlook Handbook, the Internet, and other resources, students will gather job-related information such as salary ranges, educational requirements, and related occupations. Finally, students will identify college majors, which will prepare them for their career choices, and will identify colleges and universities that meet the students' search criteria. The college application process will also be reviewed. Students will summarize their findings via a power point presentation.

**Prerequisite:** Recommended for Grade 11. One quarter. Credit: .25

## **Business**

For graduation, students must have completed Keyboarding or successfully passed a proficiency examination in that skill. Students, beginning in the spring of grade 8 and throughout the Green House, will be given the opportunity to take that exam. Parents and students are urged to review the criteria that must be met. In addition, every student must complete a semester of Computers Applications. REAL offers an exciting opportunity for students to envision, plan, and operate an in-school business.

### **#570 Keyboarding I:**

This is a one semester, basic keyboarding course. Mastery of the keyboard and proper keyboarding techniques will be stressed. Students will develop formatting skills, which will allow them to apply these skills to personal writing needs.

**Prerequisite: none. Semester. Credit: .5**

### **#573 Computer Applications:**

Computer Applications is a one-semester course which concentrates on the use of Microsoft Office Professional. Software instruction will include Word, Excel, Access, and PowerPoint. Integration of all of these programs will be mastered through a variety of projects. After completing this course, students will be able to use the basic features of each tool in the Microsoft Professional Office Suite.

**Prerequisite: Successful completion of Keyboarding. Semester. Credit: .5 Technology**

### **#581 Accounting I:**

Accounting is frequently referred to as “the language of business.” The study of accounting will provide students with the opportunity to develop an understanding of accounting principles as they relate to both the service and merchandising businesses. Simulations and computer applications are used to help the student apply and reinforce concepts learned. This course is useful for the college bound or business oriented student.

**Prerequisite: B or better in general math skills and in grades 11-12. Full year. Credit: 1**

### **#594 REAL Entrepreneurship:**

This course is designed to guide students through the process of creating a small business through managing the school store. Students will be responsible for all aspects of running a business by focusing on the planning, creation and operation of the business. Technology will be used throughout the course for advertising, bookkeeping, generating charts, reports, and for designing a business plan.

**Prerequisite: Successful completion of Keyboarding and Computer Application. Completion of Accounting is recommended but not required. Grades 11-12 or teacher recommendation. Full year. Credit: 1 or .5 Business and .5 Technology.**

# Fine Arts

## Art

Students must complete one fine arts credit for graduation. The wide variety of courses offered in this area provide them many opportunities to fulfill this requirement. For students who seek to continue their art study in high school and beyond, the fine arts faculty is pleased to provide individual guidance. The department also is in the process of creating pathways to support students in selecting areas of interests and meeting their high school and post-secondary goals.

### **#644 Art I:**

Art I is a foundation course in basic art and design. The student will be introduced to the elements of design and principles of composition, and learn about different art materials and techniques in a variety of media in the major art areas, including drawing, painting, sculpture, pottery, and graphic design. Students will also be given an overview of art history and criticism, and learn how to evaluate and present their own work. Emphasis is on the process of skill development and awareness of aesthetic choices in art. This foundation course is a stepping stone to all other courses in the department.

**Prerequisite: None. Semester. Credit: .5 Fine Arts. This course is a foundation course required for all other upper level art classes. We recommend that students who plan to pursue an extended study of art elect Art I and Art II in 9<sup>th</sup> grade. Make this need known to the CHS guidance counselor or the fine arts team leader. Open to grades 9-11 only.**

### **#652 Exploring the Arts & Crafts:**

The course is designed to introduce the rich world of art and design. Craft production techniques will be taught which are valuable skills that can lead to lifelong interests and potential business opportunities. This course will be a multi-cultural exploration using a variety of media. This course will cover 2-D and 3-D art in a variety of mediums including drawing, painting, textiles and other sculptural mediums. Students will be learning about art production, art heritage, aesthetics, and art criticism. An overview of the art elements and the principals of composition will be explored as the students learn the craft traditions in a variety of cultures.

**Prerequisite: None. Semester. Credit: .5 Fine Arts. Priority given to seniors who need Fine Art credit for graduation.**

### **#648 Art II:**

Art II is a companion course to Art I. Students will review their knowledge of the elements of design and principles of composition and expand their exploration of art media through exposure to printmaking and craft traditions in a variety of cultures. Students will also further their skill development in drawing, painting, color theory, sculpture, and two-dimensional design. Emphasis is on applying the elements and principles learned in Art I and practicing skills, while developing personal expression and focusing on creative problem solving.

**Prerequisite: Art I. Semester. Credit: .5 Fine Arts. Students may register for Art I and II consecutive semesters.**



**#668 Drawing:**

Drawing builds on the basic art skills learned in Art I and Art II through presentation of units on contour drawing, light on form, and composing the page. Areas of in-depth exploration will include capturing the unique textural and pattern qualities of various objects and materials, such as animals, people, and plants, as well as mastering the illusion of space in landscape and perspective drawing. Students will receive an introduction to the arts of illustration and technical drawing, and be challenged to create their own dramatic architecture or fantasy creatures! Media will cover pencil, pen and ink, wash, charcoal, pastel, crayon, scratchboard, and colored pencil. Emphasis will be on creative problem-solving and personal expression using the elements of design and principles of composition in developing drawing skills.

**Prerequisite:** Art I or teacher permission. Semester. Credit: .5 Fine Arts

**#675 Painting:**

Painting is an art course that relies on the drawing and compositional skills introduced in Art I, practiced and applied in Art II, and refined in the drawing course. Subject matter will vary with each media, but the fundamentals of still life, landscape, figure and portrait, and abstract styles will be presented. Media will include acrylics, watercolors, exploration of medium such as egg tempera and others. Art History will be an integral part of the painting course. Students will learn preparation of painting surfaces, such as stretching a canvas.

**Prerequisite:** Art I, Drawing or permission of the instructor. Semester. Credit: .5 Fine Arts

**#660 Pottery I:**

Students enrolled in Pottery I will have the opportunity to produce pieces of pottery, explore historical aspects of the art, and learn the aesthetics of pottery. This hands on course allows for students to construct pottery in a variety of methods including: pinch, coil, slab, and sculptural form. Glazing application and techniques will be presented upon completion of a piece. Instruction will be given in loading and unloading of the kiln for the firing process.

**Prerequisite:** Art I. Semester. Credit: .5 Fine Arts

**#659 Pottery II:**

Students enrolled in Pottery II will have the opportunity to produce more complex pieces of pottery. Instruction will be given in throwing on the electric and manual wheels. Exploration of this art will be done on a fairly independent level. Participation in loading and firing, and unloading of the kiln will be expected. Some studio projects will be generated by the student based on individual interest areas and will be presented to the instructor for approval.

**Prerequisite:** C or above in Pottery I. Semester. Credit: .5 Fine Arts

**# 685 Photography:**

This 18-week course is designed to involve the student in black and white photography using black and white photographic materials, equipment, and darkroom techniques. Students will use a 35-mm camera, handle, and develop film, and use an enlarger to make prints and enlargements. Students will receive basic introduction to use of the digital cameras and related computer applications. Each student will learn to produce professional quality prints. Career opportunities will be discussed and explored in the field of photography.

**Prerequisite:** Art I. Grades 11-12. Semester. Credit: .5 Fine Arts. Purchasing of some materials will be required by students.

**#608 3-D Design:**

3-D Design will explore many ways of bringing ideas to life in three dimensions, including product development, package design, modeling, and interior or environmental sculpture and design. Students will be challenged to design an item from their own original idea, and learn the process of research and development in producing it and presenting it to the public. They will also receive an introduction to model building as a way to communicate product, invention, and abstract ideas to others. The course will conclude with looking at ways to use 3-Dimensional design through architecture, landscape, and sculpture to adapt, change, or manipulate our environment and alter our way of looking at the world.

**Prerequisite:** Art I. Semester. Credit: .5 Fine Arts or Technology credit

**#650 Advanced Placement Studio Art:**

Advanced Placement Studio Art is designed for upper class students with a strong foundation in art and an interest in completing a comprehensive portfolio for college application or the Advanced Placement Studio Art exam. Students should have a working knowledge of the Elements of Design and Principles of Composition to succeed in this course. Students are not required to submit their portfolio for the AP exam, however, the same criteria is expected to be met in completing work representing the three areas specified for portfolios by the College Board: Breadth - showing a mastery of a variety of media; Concentration - representing a theme or focus of artistic intent; and Quality - displaying a group of works of the best possible quality.

**Prerequisite:** Grades 10-12 and permission of instructor. Semester. Credit: .5 Fine Arts. Students are required to purchase materials.

## Music

### **#635 Band:**

Students with previous band instrument experience are welcome to join the Colchester High School Band and experience rehearsing and performing standards in classic and contemporary band literature. Performances during the year include exchange programs, parades, regular concerts, pops concerts and other public performances. Band students may also audition to participate in the District, All State and New England Music Festivals as well as prepare and perform ensemble music. Students are required to participate in all rehearsals and performances as well as accrue quarterly musical credits for research papers, concert and recording reviews, and individual or small ensemble performances. Students who would like to begin to learn the play a band instrument may also enroll in the course. Instruction and assistance will be provided until the student is ready and comfortable joining the regular program. Some school owned instruments are available to band members and are loaned to the student at no charge. Band rehearses during the school day and performs approximately 10 times a year. Band members may also elect to participate in Colchester's New Generic Jazz Ensemble, an evening credit course.

**Prerequisite: None. Full year course. Credit: 1 Fine Art**

### **#619 Jazz Ensemble:**

Current members of the CHS Band may welcome to join the Colchester High School's New Generic Jazz Ensemble and experience rehearsing and performing standards in classic and contemporary jazz ensemble literature. Performances during the year include exchange programs, jazz festivals, regular concerts, and other public performances. Jazz ensemble students may also audition to participate in the All State Music Festival as well as prepare and perform small ensemble music. Improvisation skills will be included in each rehearsal and students are encouraged to use those skills within the selected programs. Students are required to participate in all rehearsals and performances as well as other assessments. Students who would like to begin to learn a different instrument than their band instrument to participate may enroll in the course. Instruction and assistance will be provided until the student is ready and comfortable joining the regular program. Some school owned instruments are available to jazz ensemble members and are loaned to the student at no charge. Jazz Ensemble rehearses outside of the school day (usually on Wednesday evenings) and performs approximately 10 times a year.

**Prerequisite: Band Member. Full year course. Credit: 1 Fine Art**

### **#636 Glee Club:**

Glee Club is an entry level singing course for students of all ability levels who are interested in singing for fun. The song selections will be based on the philosophy of "something for everyone". A typical Glee Club performance features a broad range of musical selections from classical to contemporary, and folk songs to show tunes.

**Prerequisite: None . Credit: 1 credit in Fine Arts for full year participation.**

### **#639 Chorus:**

Students enrolled in CHS Chorus will rehearse and perform representative music of many cultures, time periods and styles. Entrance into this performing group is based on a person's ability to sing and match pitch in his or her vocal range. A strong commitment to learning musical vocabulary, reading standard musical notation, and improving one's singing voice within the group is necessary in order for the group to be successful. The class meets daily with the opportunity for involvement in such activities as the CHS Concert Choir, CHS Chamber Singers, District Choral Festival, VT All State Music Festival, and the New England Music Festival.

**Prerequisite: Ability to match pitch. Credit: 1 credit in Fine Arts for full year participation.**

### **#618 Chamber Singers:**

This ensemble is made up of advanced singers who have successfully **auditioned the previous spring**. 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. Credit: 1 credit in Fine Arts for full year participation. This class meets after school.**

## **Multi-media**

### **#698 Video Production:**

This semester long course will focus on video production techniques. Students will be able to produce either a documentary, news broadcast or create a short narrative film using the facilities of LCATV. Students will learn pre and post-production techniques and how to use studio equipment. Enrollment is limited and based on interview and application.

**Prerequisite: B or better in American Studies. Semester. Credit: .5 Fine Arts or Technology**

## **Other Technology Courses**

**3-D Design**

**Action Physics**

**AP Physics**

**Computer Applications**

**Engineering Physics (lab)**

**Keyboarding**

**REAL Entrepreneurship**

**Venture Publications (Yearbook)**

**Video Production**

# Physical Education

## #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 18 units or 3 semesters. Listed below is a complete listing of the activities offered throughout the year:

**Lifetime Sports:** Students must take at least four different units

Aerobics	Floor Tennis “pickleball”
Archery	In-line Skating
Badminton	Racquetball
Dance	Table Tennis
Fencing	

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

Canoeing	Mountain Biking
Climbing Wall	Orienteering
Cross Country Skiing/Snowshoeing	
Hiking and Camping	Ropes Course

**Confidence and Teambuilding** All students must take PA I

Project Adventure I

**Fitness** All students must take Personal fitness

Aerobics	Strength training
Personal Fitness and Nutrition (requires 6 week program)	

**Team Sports** Students need to take two different team sports

European Team Handball	Softball
Mini Unit of Team Sports (Basketball, Indoor Soccer, and European Team Handball)	Volleyball

**Alternative Credit Options:** Students may earn up to ½ credit for participation in one of the following programs:

Interscholastic Sports (2 units per sport)  
Independent Study (2 units per activity taught by an instructor)

**Prerequisite: none. Credit: Awarded as units are completed.**

## 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 in guidance.

**Prerequisite: Students must be 15 years of age and possess a valid learner’s permit. Semester. Credit: .5.**

→VT State Driver Education Validation Cards will be issued according to the following schedule: fall/spring semesters--last week of the semester; summer--the first week of August.

# Burlington Technical Center

[www.burlingtontech.org](http://www.burlingtontech.org)

The Burlington Technical Center offers high school students the opportunity to develop the technical, academic and employability skills needed to start careers either through employment after high school or by continuing on to college. Cooperative Education and apprenticeship programs are an important part of the BTC experience with a wealth of area businesses participating in providing jobs for our students.

Students attend the Burlington Technical Center for 2 hours and 15 minutes, either in the morning or the afternoon, and may earn a total of 3 credits each year toward graduation. They are able to return to their home schools for other academic courses. BTC programs are designed to be completed in two years, although some students attend for one year to begin an introduction to a career field. In most cases students must complete a program to earn designated imbedded credits. High school students taking BTC programs are able to enroll in college courses free of charge at Community College of Vermont, Burlington College, Saint Michael's College and the University of Vermont through the College Connections program. Qualified students may also earn college credits from a number of post-secondary institutions including Champlain College, Community College of Vermont, Embry-Riddle Aeronautical University, Lyndon State College, New Hampshire Technical College, Vermont Technical College and the University of Northwestern Ohio. Please consult the BTC Program of Studies in the CHS Guidance Office or visit the BTC web site at [www.burlingtontech.org](http://www.burlingtontech.org) for additional information.

## **BURLINGTON TECHNICAL CENTER: COURSES FOR CHS STUDENTS**

### **Auto Body Repair I**

Auto Body Repair II (S)  
Automotive Science & Technology I  
Automotive Science & Technology II (S) (M)  
Aviation Technology I  
Aviation Technology II (S) (M)  
Computer Systems I  
Computer Systems II (S)  
Culinary/Professional Foods I  
Culinary/Professional Foods II (S)  
Design-Build I (M)  
Design-Build II  
Design & Illustration I  
Design & Illustration II (A)  
Electronic Recording Arts I  
Electronic Recording Arts II (S)

Human Services/Early Childhood Education I  
Human Services/Early Childhood Education II (SS)  
Mechanical Engineering & Design Technology I  
Mechanical Engineering & Design Technology II (M)  
Medical & Sports Sciences I (S)  
Medical & Sports Sciences II  
Principles of Engineering/Architecture/Construction I (M)  
Principles of Engineering/Architecture/Construction II  
Welding/Metal Fabrication I  
Welding/Metal Fabrication II (M)

(S) Science Credit      (SS) Social Studies  
(E) English Credit      (A) Art Credit  
(M) Math Credit

## DESCRIPTIONS OF BURLINGTON TECHNICAL CENTER COURSES

**AUTO BODY REPAIR I & II:** three units of credit per year (Science credit after two years)

This two-year program is designed to provide the student with job-entry skills for auto body repair equipment, body repair and alignment, refinishing, welding techniques, frame and chassis repairs and estimating and management procedures. Emphasis is placed on technical knowledge as well as the manual skills associated with auto body craftsmanship. The curriculum utilizes ASE (Automobile Service Excellence) certified instructional materials, a symbol of quality in this industry. Qualified second-year students may be placed in Co-op jobs at local auto body shops upon approval of the instructor.

**AUTOMOTIVE SCIENCE & TECHNOLOGY I & II:** three units of credit per year (Science credit and Mathematics credit with additional work after two years)

The modern automobile has become a very technologically advanced machine with vehicle systems rapidly changing. Computers, electronic engine controls, fuel injection and antilock braking have entered the world of the automotive technician. These technology and future advancements require the development of new skills and techniques. Students in this program will receive the technical education increasingly in demand by automotive dealerships, independent repair facilities, and equipment manufacturers. The program offers in-depth theory with extensive hands-on training in the well-equipped automotive lab.

**AVIATION TECHNOLOGY I & II:** three units of credit per year (Science credit and Mathematics credit after two years)

High salaries and extremely challenging jobs make Aviation Technology a very attractive career. If you enjoy subjects such as aerodynamics, are fascinated by complex machinery and love aircraft, this is an excellent choice for you. The use of specialized tools to work on aircraft components in the laboratory, and work experience in local aviation companies provide the opportunity to become a certified aircraft technician. All training received in this program is FAA approved and is applied to **Airframe and Power plant (A&P) Certification**. Students who successfully complete the Aviation program at BTC may enroll for additional training in Airframe and Power plant systems on a tuition basis, which is also available at our facility at the airport. We not only have training sites for Airframe and Power plant, but also have a maintenance examiner on staff for complete A&P certification and written testing.

This two-year program is designed to provide instruction in a wide variety of skills and knowledge related to the aviation technology field. These areas include basic aircraft maintenance, principles of aerodynamics, flight electronics, troubleshooting, drawing, metallurgy, sheet metal fabrication, physics of flight and trends and careers in the aviation industry. This program exceeds the requirements for Federal Aviation Regulations (FAR) part 147 under certificate number VMQT049K.



**COMPUTER SYSTEMS:** three units of credit per year (Science credit after two years)

Students are trained in Microsoft software including Word, Access, Excel, PowerPoint, FrontPage and Outlook. The students will also have some experience with HTML, web page design programming. Second semester students are introduced to PC Technology, how it works, the operating systems, identifying malfunctions and the upgrade of hardware. This course will allow the student to master the fundamentals of PC configuration and troubleshooting, utilizing current hardware and software.

During the second year of the program the **Cisco Networking Academy** provides students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. It includes, but is not limited to, networking terminology and protocols, network standards, cabling, routers, topology, IP addressing and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication and social studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance and use of networking software, tools and equipment and all local, state and federal safety, building and environmental codes and regulations.

**Prerequisite: Keyboarding or Instructor Approval**

**CULINARY/ PROFESSIONAL FOODS I & II:** three units of credit per year (Science credit after two years)

Culinary/Professional Foods is designed to introduce students to all aspects of the restaurant and institutional food service industry. Emphasis is on quantity food preparation. Instruction includes sanitation, safety, use and care of equipment, basic meal preparation, and table service (i.e., waiter/waitress). Foods prepared are salads, meats, poultry, fish, soups, sandwiches, vegetables, breads and desserts. Students take part in a Career Experience Rotating Co-op program to observe and participate in varied aspects of food service in the school and community. Students are introduced to the world of work including such areas as self-appraisal, finding a job, applications, resumes, interviews, employment laws, employee benefits and responsibilities.

**Prerequisite: Interview with the instructor. Note: Attendance records must be provided prior to the interview.**

**DESIGN-BUILD I & II:** three units of credit per year (Mathematics credit after the first year)

Students in the Design-Build program will learn the principles of construction and design through classroom instruction and hands-on lab activities. In the first year of the program, students learn the care and safe use of both hand and power tools, and develop skills in measuring, drafting, estimating, planning, carpentry and finishing. In addition to on-site lab activities, residential and commercial projects in the greater Burlington area will supply the ideal venue for the application of knowledge and skills learned. After students learn the elements of construction, they will use their knowledge to formulate and draft designs utilizing Auto CAD software in the design process. The Design-Build curriculum will give students the opportunity to be employed by a traditional construction company, a design-build company or become self-employed.

**DESIGN AND ILLUSTRATION I & II:** three units of credit per year (Fine Arts credit after two years)

If you have creative talents, like to draw and want to explore careers that will help you use these skills, this course will give you the opportunity. You will learn about the many careers associated with design and illustration and get a chance to begin building your career in the following ways: Build a portfolio of design and illustration work; discover which field of design and illustration is right for you; see the work of successful design professionals; map out an individual course to help prepare you for your chosen career; enhance your creative skills; develop a critical eye for design; organize complex jobs; build your visual vocabulary; self promote; protect yourself and your work; work with clients; and improve communication skills. You will also learn to use programs such as Adobe Photoshop, Illustrator and InDesign, QuarkXpress, Macromedia Dreamweaver and Vector Works.

**Prerequisite: Interview and Portfolio Presentation.**

**ELECTRONIC RECORDING ARTS I & II:** three units of credit per year (Science credit after two years)

Electronic Recording Arts has been designed to introduce students to creative careers in non-print media (television, film and multimedia presentations). The course will include the following topics: Introduction to Video Production; Ethical, Legal Implications of Video Technology; Video Equipment; Camera Techniques; Audio; Lighting; Computer Graphics; Script Writing; Interview Techniques; Producing; and Editing. Students will be able to develop projects in the Burlington Technical Center Video Studio using a variety of cameras, video recorders, audio processors, editing systems, computers and lighting instruments. Students participate in field trips to observe and participate in local television and film productions. Media Production II students will have an opportunity to expand their knowledge by producing independent projects. Internships with area producers will be arranged for second year students.

**HUMAN SERVICES/ EARLY CHILDHOOD EDUCATION I & II:** three units of credit per year (Social Studies credit after two years)

The Human Services Curriculum includes an introduction to related careers working with the elderly, people with special needs, children and teens. Communication skills and knowledge of one's self and the needs of others are the basis of this program. Students must have a genuine interest in and concern for people. This course is designed for learning through practical experience. In addition to classroom instruction, students gain experience with children through the operation of an on-site, licensed, preschool program and field trips to a variety of Human Services organizations. Second-year students choose an area of concentration such as Early Childhood, People with Special Needs, Adolescents, Elementary Education, Criminal Justice, Social Work or the Elderly. Students can work in the Preschool and are placed in off-site internships. Placement in the Cooperative work experience program is also available. Students completing this two-year course meet state requirements for entry-level positions in the early childhood field.

**MECHANICAL ENGINEERING & DESIGN TECHNOLOGY I & II:** three units of credit per year (Mathematics credit after two years)

Have you ever looked at a machine and wondered what makes it work or taken one apart and enjoyed reassembling it, or even designed and built one yourself? This program is for students who enjoy designing and building machines or would like to operate highly technical machinery that produces nearly every item used in the modern day world. Students in this program learn computer assisted machine design and the basic skills needed to operate manufacturing machinery such as lathes, plasma cutters and milling machines. In the second year of the program, students broaden their skills in computer assisted designing techniques, designing and using blueprints and operating CNC (Computer Numerical Control) machines. Other important components of manufacturing, including process planning, estimating, metallurgy and quality control are also introduced. NIMS certification is available for students who successfully complete this program.

**Prerequisite: Algebra I, Geometry or Instructor Approval.**

**MEDICAL & SPORTS SCIENCES I & II:**three units of credit per year (Science credit after the first year)

The Medical and Sports Sciences Program is a two-year college preparatory program. The rigorous curriculum prepares students to pursue further education towards a career in the medical or sports sciences.

The first year of the program focuses on gaining a thorough understanding of the human body systems (anatomy and physiology) as well as an in-depth understanding of the musculoskeletal joints of the body (kinesiology). Students are oriented to instruments which professionals use to assess the body systems and joints of the body (i.e. blood pressure cuffs, reflex hammers, goniometers,...) Students also spend time during this year exploring various sports and health related fields in order to fully understand the details of each of these positions. During the spring semester, the students observe different medical professionals and identify their own area of interest.

The second year of the program allows students to explore personal values, medical ethics and legal issues related to medicine. Students review the anatomy of each body system or joint with a focus on diseases and injuries of the body (pathology) and techniques professionals might use to approach treatment (rehabilitation.) Students are placed in career work experiences in their identified area of interest, allowing them to acquire valuable hands on experience with patients as well as interaction with medical/sports professionals.

**Prerequisite: Biology or Instructor Approval.**

**PRINCIPLES OF ENGINEERING, ARCHITECTURE & CONSTRUCTION I & II:** three units of credit per year (Mathematics credit after the first year)

The PEAC program is designed to meet the needs of students who are interested in pursuing careers that encompass the design, engineering and construction of commercial and residential buildings. Included in the curriculum is the study of manual and computer aided drafting, surveying to include topographical and boundary details, architectural design concepts and building construction principles and practices. Students will select small projects to design and build for area nonprofit agencies. Through classroom activities students will explore career opportunities and post-secondary options. They will also develop professional portfolios to present to colleges or future employers. In this program you will: gain competency in computer aided design and drafting; work with mentors who are professionals in the engineering, architectural and construction fields; interact with area planning and zoning commissions; build a professional portfolio; produce a boundary survey map including contour drawings; learn construction practices and inspection guidelines; study the effects of natural and manmade forces on structures; and explore post secondary options.

**Prerequisite: Algebra I and Geometry or Instructor Approval.**

**WELDING/METAL FABRICATION I & II:** three units of credit per year (Mathematics credit after two years)

The welding industry today presents continually growing opportunities for skilled workers. This program trains students in the recognition of metals, as well as the proper procedures in welding. Instruction includes electric arc, oxyacetylene and gas tungsten arc welding. Instruction also includes blue print reading and the safe use of small hand and power tools used in the field of metal fabrication. Students are encouraged to design and fabricate projects such as trailers, log splitters, gyroscopes, etc. AWS certification is possible upon completion of this program.

# CENTER FOR TECHNOLOGY, Essex

## FULL DAY PROGRAMS

Visit our web page [www.go-cte.org](http://www.go-cte.org) for more details and photos.

The Center for Technology, Essex (CTE) operates under a full day block schedule. This schedule allows either juniors or seniors the opportunity to complete a technical program in one year. During the time the students are at CTE (9:17 a.m. - 2:15 p.m.) they are able to take academic courses (e.g. algebra, chemistry) at CTE or at Essex High School if needed to meet college or graduation requirements. This schedule has been designed to allow more flexibility and intensity for college-bound, serious students.

The primary objective of all the technical programs is to provide the student with specific knowledge and skills to enable him/her to obtain employment upon completion of the program, and/or to enter college with advanced standing. All students experience a school-to-work placement during the year in their career field, which may evolve into paid work (Co-Op) for some successful students. Industry credentials and licenses are affiliated with many programs.

The college-bound student, whether headed for two or four year college, can benefit from technical training by learning some of the fundamentals of his/her college major. Some students earn college credit through technical center classes as well as at local colleges in courses paid for by CTE.

Technical programs are offered to juniors and seniors; however, some programs have suggested prerequisites that should be taken in freshman or sophomore year before the student applies to CTE.

\* Full day programs at CTE can earn 2 or more embedded credits in subjects such as Math, Fine Arts, Science, English, Practical Arts, etc, plus 3-4 elective credits.

\* Business Academy & Health Information Mgmt. students can earn 9 CCV credits for successful completion.

### **CENTER for TECHNOLOGY, Essex PROGRAMS**

#### *COMPUTER and INFORMATION ACADEMY:*

Business Academy  
Computer Systems Technology  
Health Information Management

#### *HEALTH and HUMAN SERVICES ACADEMY:*

Dental Assisting  
Child Care/Human Services  
Cosmetology Arts and Sciences  
Professional Food Services

#### *APPLIED SCIENCE ACADEMY*

Automotive Technology  
Building Technology  
Engineering/Architectural Design  
Natural Resources and Agriscience

#### *APPLIED ARTS ACADEMY*

Computer Animation & Web Page Design  
Printing/Computer Graphics

CTE does not discriminate on the basis of race, color, national origin, religion, sex, disability, or sexual orientation.

## CENTER for TECHNOLOGY, Essex COURSE DESCRIPTIONS

### I. Computer and Information Academy

#### **BUSINESS ACADEMY**

The Business Academy prepares students for success in the business world and/or further education. Students who complete the program are likely to be successful in such careers as sales, marketing, retail, accounting, computer operation, banking, or small business management. The core curriculum includes interpersonal communications, marketing and sales, small business management, accounting, and computer software.

The classroom creates an authentic business and retail environment in the operation of the on-campus school store. Students work independently and collaboratively to analyze and solve problems. Field trips and guest speakers provide additional program enhancements.

All students in the Academy have the choice of selecting their career path. Students enroll in the Academy and then select a concentration that applies to their area of interest:

- Office and Information Management
- Computerized Accounting
- Advanced Computer Applications- mouse certification
- Entrepreneurship- Marketing

All students will have career work experience and an opportunity for a cooperative placement at local businesses.

**Credits:** One math and one English credit embedded, plus 3-4 elective credits.

**Prerequisite (recommended):** Keyboarding

**College Connection:** Students who successfully complete the program ( w/ 88/89 (B) or better average) may earn 9-15 CCV college credits which are transferable to UVM and in-state colleges. Champlain College courses are also available in the fall and/or spring.

**Apprenticeship:** A second-year apprenticeship and/or a full-time co-op placement are available to students who demonstrate advanced skill and initiative in completing the first year program.

#### **COMPUTER SYSTEMS TECHNOLOGY**

**The Computer Systems Technology Program prepares students to enter a career in computer support as part of an Information Technology team.** Students will 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.

This program prepares students to take national exams, which can earn them professional industry certifications such as A+ (Computer Service Technician) and N+ (Network Service Technician).

Curriculum Components:

- PC system hardware and software skills
- Computer Diagnostic analysis and maintenance
- Principles of computer network systems
- Effective management of the Windows and computer network environments

- Knowledge and applied skill in the use of various common computer applications such as word processing, spreadsheets, databases, and presentation software
- Internet administration and support

**Second Year Opportunity:** Students who successfully complete the first year can apply for year II to work on MCSE ( Microsoft Certified Systems Engineer) certification. Study, in combination with co-op placement, will help students qualify for this challenging license needed by Information Technology support staff.

**Credits:** one math and one science credit embedded, plus 3-4 elective credits.  
College Credits are available to interested students who qualify.

### **HEALTH INFORMATION MANAGEMENT**

This program focuses entirely on the training for administrative positions in a health care setting. The business of health care increasingly relies on the skills of the front office manager: Interpersonal, communicative and technical skills. The courses in this program are as follows: medical terminology, keyboarding and transcription, career development, computerized medical office management, medical insurance-reimbursement and procedural and diagnostic medical coding. Microsoft Office 2000 computer software package is studied and used.

Students in this program participate in a 30-hour career work experience in the health care industry such as private physicians' offices, hospitals, clinics or insurance companies. Area participants in this experience include Fletcher Allen Health Care-Radiology, Patient Financial Services, Patient Registration, Health Information Management, Visiting Nurse Association, Vermont Department of Health, and Veteran's Affairs Outreach Clinic.

The program places great emphasis on community service learning, networking within the health care industry and professional development for all student participants. Guest lectures, field trips, professional workshops, and state competencies provide students the necessary training for employment in the ever-changing field. Possible career fields include patient financial services, medical billing and insurance reimbursement, transcription, medical office secretary, patient scheduling and reception and medical orders processing.

Upon completion of this one-year certificate program, students may receive 9 credits from the Community College of Vermont, transferable throughout the Vermont State College system.

**Credit:** one math and one English credit, plus 3-4 elective credits.

\*Nine- (9) CCV college credits available

## **II. Health and Human Services Academy**

### **DENTAL ASSISTING**

The Dental Assisting Program is accredited by the American Dental Association. This challenging career, demanding versatility and a willingness to assume responsibilities for many diverse tasks, is attractive to students who are strong in science and want to work with people. The purpose of this award winning program is to have the student become familiar with all aspects of dental assisting in the general dental office. Our curriculum is designed to prepare motivated individuals to become competent and knowledgeable. The sequence covers theory (professional orientation, dental materials, radiology, anatomy and physiology, infection control, clinical assisting, medical emergencies/CPR ) computerized office management and then guided practical applications.

Externship and field placement provide practical experience and on-the-job training in dental offices of the professional community as part of the academic program. These practical experiences are vital in developing a sense

of initiative and responsibility and they are a required component of the curriculum.

Graduating students can take the Dental Assisting National Board examination and become Certified Dental Assistants. Some students continue their education, pursuing a career in dental hygiene or dentistry.

Graduates are eligible for employment as dental assistants in a general dentistry office or in specialty practices such as orthodontics or oral surgery. They may also be employed in a dental laboratory or as a dental health educator.

**Recommendation:** General or biological science

**Credits:** One science and ½ math credit embedded, plus up to five elective credits.

## **CHILD CARE/HUMAN SERVICES**

The Human Services curriculum serves as an introduction to careers working with children, youth, the elderly and the mentally and physically challenged. Communication skills, along with knowledge of self, are an important part of this program. The course is designed for learning through practical skills necessary for today's world of work; students do career work experience in area day care centers, elementary schools, nursing homes or recreational programs for children and senior citizens. Students must have a genuine interest in and a concern for people to be successful in these career fields.

In cooperation with Champlain College, students are able to earn 6 college level credits. This course is also recognized by the State of Vermont Day Care Licensing Unit as a training program for Assistant Teachers. Students completing the requirements will be certified.

Career possibilities include: infant, toddler and preschool caregivers, licensed and registered day care home owners, instructional assistants in the public schools, assistant trainers for the mentally or physically challenged, and recreational therapy assistants in programs for the elderly. This is also an excellent program for students to investigate the fields of education and social work.

**Second year specializations** may be available, including an Educational Assistant Apprenticeship position for students who qualify and are selected.

**Helpful background:** Biology, Child Development and Child Psychology

**Credit:** one English and one Social Studies embedded credit, plus 3-4 elective credits

College credits available.

**Special Requirements:** 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.

## **COSMETOLOGY ARTS AND SCIENCE**

Cosmetology Arts and Science is a program covering the theory and application of practical skills related to the cosmetology field. This is a Vermont State licensed school of Cosmetology Arts and Science regulated by the Vermont State Board of Cosmetology and Barbering, overseen by the Office of Professional Regulations. In the State of Vermont, 1500 clock hours in a school of cosmetology or 2000 apprenticeship hours is required for candidates to become eligible for the cosmetology licensing examination. Applicants for the exam must be at least 18 years old. Students can begin study at age 16.

This program is designed to offer applied academics in the areas of mathematics, science, and English Language Arts in reading and writing. Emphasis is placed on worker traits such as customer relations, interpersonal



communication, teamwork, initiative, reliability and professionalism, *attire* and other workplace readiness skills. Curriculum components include Theory Essentials, Hair Services and Nail and Skin Service. The motivated student may accrue up to 750 clock hours (toward license) in one academic year. The design of the program is for two academic years, for interested, qualified students. Second year students work in a clinic, which is open to the public. An arrangement with a local College of Cosmetology Arts and Science enables successful students who are close to taking their exam to finish at the college, perhaps during the summer.

**Credit:** one science and one math credit embedded, plus 3-4 elective credits. College credits available.

## **PROFESSIONAL FOOD SERVICES**

The Professional Food Services program is designed to offer training in all areas of the food service industry. Students in this program will 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 (restaurants, hotels, college cafeterias, etc.).

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 Colonial Room". The setting is fast paced, physically demanding, constantly changing, and very realistic. Students are introduced to all aspects of the food service industry, by rotating through the bakery, kitchen and dining room.

Students learn basic weights and measures, food service safety and sanitation, product identification and use, time management, menu writing, nutrition, use and care of equipment and mastering food service competencies. Students work to develop good work habits and to work as part of a team. There is a close working relationship with area businesses which allows students to spend 2-3 weeks with a participating employer on a Career Work Experience.

A second year Apprenticeship is available to advanced students who qualify and are selected.

**Credit:** one math and one science credit, plus 3-4 elective credits. College credits are available.

**Recommended prerequisites:** good basic math and writing skills.

### **III. Applied Science Academy**

#### **AUTOMOTIVE TECHNOLOGY**

The Automotive Technology program provides training and experience in the principles of automotive diagnosis and repair. The Automotive Technology program is a NATEF (National Automotive Technicians Education Foundation) certified course recognized nationally for its excellence. Automotive technology provides students with the basic knowledge and skills to acquire an entry-level job in the automotive trade, or to pursue a post-secondary education.

Areas of study include braking systems, steering and suspension systems, all wheel alignment, welding, engine overhaul, basic electricity (including starting and charging systems). Students use computerized test equipment to diagnose charging, ignition, fuel injection and computerized engine control systems. Students will learn both basic and advanced technical skills and essential worker traits to secure and retain employment in automotive and related fields.

During the year, students participate in community service learning activities for school and community groups. Students work as technicians in the "live" shop operated within the Center for Technology, Essex, as well as

participating in 30 hours of career work experience in an area auto tech business.

**A second year is available** for additional training for qualified students through the Automotive Youth Education System (AYES), a national program sponsored by manufacturers and dealers. Second year students participate in an advanced auto course designed to help students pass ASE exams.

**Recommended Prerequisite:** Physics (and a good attitude is a must).

**Credit:** one math and one science credit, plus 3-4 elective credits College credits are available.

## **BUILDING TECHNOLOGY**

The Building Technology program, through classroom instruction and actual building projects, prepares a student to properly and safely operate hand and power tools used in the trade. Students gain basic and advanced skills and essential worker traits needed to gain employment in the construction industry. Eligible students work in either a residential or commercial construction site in a Career Work Experience (CWE). To be eligible for a CWE, a student must maintain a class grade point average of 80 or better.

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.

Students who complete the program with a grade point average of 85 or higher are eligible for admission into Vermont Technical College's Construction Practices and Management Associate Degree Program and may receive up to five credits toward their degree at VTC. Some students may enroll in licensed apprenticeship courses of study for electricians and plumbers accredited by the State of Vermont.

**Credit:** one math and one science credit plus 3-4 elective credits.

## **ENGINEERING/ARCHITECTURAL DESIGN**

The Engineering and Architectural Design program is designed to teach students 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 a career field prior to college.

The program is based on an individualized approach. A student may enter the program on a one or two year basis; flex scheduling is accommodated. Students must be enrolled concurrently in a math and science while taking this program. (Algebra II, Pre-Calc/Chemistry, Conceptual Physics or Physics.) By graduation time, students should plan to have successfully completed Algebra I, Geometry, AlgebraII, Pre-Calc. or A.T.P.S., Chemistry and Physics as a minimum requirement for any two or four year college

### **Part 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 software will be used to solve and draw many of these problems. Multimedia portfolios will also be produced using Microsoft Office applications. This course is recommended by UVM to all students considering engineering careers. Students considering VTC in mechanical engineering may also get credit waivers depending on the degree of success in the program.

**Recommended Prerequisite:** Algebra I, Geometry (80% or better in each)

## **Part 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 programming and injection mold designs and development. Design, building and testing of structural models will be covered along with interdisciplinary projects with Physics courses. Work in this course is done entirely on computer with AUTOCAD and other software.

***ARCHITECTURAL DESIGN*** covers residential buildings. Topics include styles, construction, design floor plans, elevations, foundations, electrical, plumbing, heating, kitchens, lot and plot plans. Students will be involved in the actual design of buildings that will be built. Work in this course is done entirely on computer with AutoCAD and other software.

**Credit:** one math and one fine arts credit, plus 3-4 elective credits

## **NATURAL RESOURCES & AGRISCIENCE TECHNOLOGY**

Students are offered a unique opportunity to experience the science, technology, and management of a “living laboratory.” In existence for over 30 years, this award winning, fast paced program combines practical applications for chemistry, physics and biology with skills useful for employment.

“Majors” provide students the opportunity to gain skills in timber management, logging, plant and soil science, hydroponics and aquaculture, greenhouse production, and landscaping. Mechanical science includes heavy equipment operations, small engines, welding, water systems, hydraulics and electricity. Apprenticeship positions in water technology, electrical and plumbing are available to advanced students who qualify and are selected.

In addition, each student will 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 hydroponics vegetables.

**Students** interested in attending college to major in mechanical engineering, natural resources and environmental fields will benefit from this program. Students planning to continue their education in fields relating to industrial mechanics, or the management, use and preservation of land, soil, and water will find this course tailored to meet their needs. After an introductory “core” program during which all students gain exposure to the major areas of instruction, each student will select a “career major”, either

- Environmental Science/Forestry/Horticulture
- Mechanical Science

Possible career pathways could include 1 or 2 years in the program, apprenticeships, direct employment, and/or linkages to 2 or 4-year colleges (University of Vermont College of Agriculture and Life Sciences, U.V.M. School of Natural Resources, Vermont Technical College, and SUNY Cobleskill, Paul Smiths etc.)

**Prerequisites:** Preference will be given to students with effective math and science backgrounds. Students should be able to demonstrate mastery of basic mathematical operations, measurement, fractional and metric conversions, and logical manipulative skills.

**Credit:** one math and one science credit, plus 3-4 elective credits. College credits available

## IV. Applied Arts Academy

### COMPUTER ANIMATION AND WEB DESIGN

The Computer Animation and Web Page Design Program is designed for students interested in acquiring new media skills. Computer animation takes advantage of state-of-the-art 2D and 3D digital computer hardware and software used in creating such Pixar Films as Toy Story. Students will create characters, buildings, cars, and a number of other 3D projects. Animation will follow, in which students bring their 3D creations to life. Web Page Design reviews the history and the evolution of the Internet and introduces basic concepts. Students will learn how text and graphics behave on the web, how to plan, prepare and save text and images, how to send and receive images, animation and text, and how to upload and download. Students will design web sites and creative interfaces, strong graphics images, use functional site organization and logical navigation. The objectives of this course are to learn about the aesthetic and technical roles of design in developing web sites. Students learn the process of creating a well-designed web site, using the principles of graphic design with electronic media. Focus is on the technical aspects of working with the web and how web authoring software works.

Upon graduation from the program, students will have completed a professional media portfolio representative of their skills and experiences gained through the yearlong study. This program will prepare students to successfully take industry recognized certification exams.

**Credit:** one English and one Fine Art, plus 3-4 elective credits

**Recommended Prerequisites:** Familiarity with computers and the Internet

### PRINTING/COMPUTER GRAPHICS

Print media surrounds you everyday. Magazines, menus, postcards, posters, book covers, CD sleeves, and books are a few examples of print media. In the Printing/Computer Graphics program, learn how to take a publishing project from concept, through design, to preparation and printing. Learn how to use desktop publishing design tools and get experience with various tasks in a modern printing facility. The Printing/Computer graphics program provides applied instruction in the print media and graphic communication areas of graphic design, pre-press and press/finish operations for print media. Students combine creative applied arts with technology and technique. Emphasis is on creative thinking, computer software and work performance. These skills are essential to meet the demands of Vermont's second largest industry.

Curriculum components:

<b>Graphic Design</b>	<b>Pre-Press</b>	<b>Press/Finish</b>
Graphic design	Scanning	Offset press operation
Typography	Film assembly	Bindery applications
Page layout/composition	Plating	Finishing/mailing

Students experience class in a setting that duplicates a design/print shop. Students work on live client jobs through the design/print studio as well as from a semester project sheet. Visitations, presenters and client contact provide the student with an exciting perspective and understanding of industry expectations.

Students have the opportunity in a career work experience to exit into industry to utilize employer-based instruction and on-site training. This experience allows students to explore the various areas of a printing/computer graphics facility.

Upon completion of this one-year program, students have the opportunity to apply to the second year of the program. An **Apprenticeship** is available to students who have a desire to go directly into the workforce and expand their skills through employer based programs. Other students may wish to apply to a second year in the Next Generation Design & Print Studio. These students engage in online certifications in Adobe PhotoShop or Adobe Illustrator software, as well as, managing the studio. The program is housed off-site in a dynamic design/print studio located at 51 Park Street in Essex Junction.

**Credit:** one math, one English integrated, plus 3-4 elective credits

**College credits** and advanced standing for eligible students

## 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.

## ***CO-CURRICULAR ACTIVITIES***

**ART CLUB:** The Art Club is an active group of students interested in art, not just art students, who do everything from painting murals to creating craft items, exhibiting work in the CHS gallery and display cases, going on museum field trips, attending workshops outside of school and becoming involved in community service projects.

**CHS CARES:** CHS Cares is a volunteer organization that meets regularly throughout the school year in support of various service projects. CHS Cares works within the school and community to create a caring environment. Projects they have been involved in are the Crop Walk, giving Thanksgiving baskets to Colchester families, Respect and Responsibility Day, and entertaining the elderly in various resident homes. This organization is an opportunity for students to make a difference in the community in which we live.

**DEBATE CLUB / PUBLIC SPEAKING:** The Debate Club / Public Speaking are a group of students who are interested in the art of rhetoric. Engaging in discussions of various topics among their peers and / or in competition is the emphasis of this group. This is a wonderful opportunity for your students to participate in respectful arguments.

**DRAMA:** The award-winning Colchester High School Theatre Company is a yearlong activity for students interested in theatre arts. A student can choose from several main stage plays or various technical job opportunities. Students learn the rewards that come from hard work, ensemble participation, and a strong sense of commitment.

**FUTURE EDUCATORS OF AMERICA (FEA):** The Future Educators of America provides students with opportunities to explore teaching as a career. They gain a realistic understanding of the nature of education and the role of the teacher. Students mentor, tutor, job shadow, and intern in CHS classrooms and in other Colchester schools.

**GAY/STRAIGHT ALLIANCE (GSA):** The Gay Straight Alliance (GSA) meets every other Tuesday from 2:30-3:30pm in Room 237. Refreshments are provided. Gay, bi-sexual and questioning youth, along with their straight allies, meet twice each month to socialize and provide support to each other. Each meeting begins with a brief check-in, followed by discussions or small group activities. The GSA is a place for students to find answers to questions, become involved in social action projects and receive support from peers and CHS staff. Our overall goal is to help make Colchester High School a safe and fun environment for **all** students.

**GMTI:** Green Mountain Teen Initiative is an organization that provides a safe place for participants to be themselves while learning how to be a leader in the Colchester community. They learn the importance of everything from respecting others to teaching others about the danger of drugs and alcohol. Students participate in the Governor's Leadership Conference, Leadership weekends, Respect and Responsibility Day, Ghost Out Day, and many other events.

**GREATER BURLINGTON MATH CLUB:** The Greater Burlington Math League consists of students from ten area high schools who get together five times during the school year to compete individually and as a team in solving a variety of math problems in various areas. Brainteasers, geometry, algebra, advanced math, and team are just a few. Ninth graders enrolled in Geometry or Algebra II are eligible. Math League provides an opportunity for students to represent their school in an academic setting, to meet other students with similar interests and abilities, and to explore math topics beyond those normally studied in traditional courses.

**INTERNATIONAL CLUB:** The International Club will meet regularly with students interested in expanding their connections with other languages and cultures outside the classroom. The club will plan activities at CHS and in the greater community dealing with various aspects of culture, including language, art, music, food, festivals, literature, etc. Open to all students.

**MOUNTAIN BIKE CLUB:** For the mountain bike lovers. This group meets several times a week to ride and practice various mountain biking skills. The woods behind the school provide the perfect playground. The group also participates in a series of races in the spring and fall.

**NEWSPAPER:** *The Lakeside Voice* offers students an opportunity to get involved in all the dimensions of high school journalism: reporting, writing, editing, photography, and art work. The paper comes out quarterly and covers all aspects of CHS life.

**PEER HELPERS:** Peer Helpers provide support to other students in the school. They are not counselors, but are trained to be alert and make referrals to the guidance counselors when necessary.

**PHOTOGRAPHY CLUB:** This is a new group formed within the photography class during fall semester 2003. The original goal was to do fundraising to provide improved equipment to meet the growing demand for the Photography program. Along with supporting the Photography program, the Photo Club will explore new areas of photography such as digital imaging and special darkroom techniques beyond what can be covered in the Photography class.

**RED CROSS CLUB:** The Red Cross Club is part of a nationally recognized initiative to increase youth involvement in the American Red Cross. Through education, encouragement and empowering youth, students learn the skills to be role models in their communities. In so doing, they further the mission and fundamental principles of the Red Cross and touch more lives in their communities and around the world.

**SCHOLARS' BOWL:** The CHS Scholars' Bowl Team consists of all grades and competes in "Jeopardy-style" competitions against other schools in Vermont and New Hampshire. The students participate in several tournaments throughout the year, with VT-NEA Scholars' Bowl tournaments held at Saint Michael's College being the most prestigious. Practices are held weekly after school with some evening times to prepare for competitions when necessary. All students are welcome. Students with the strongest abilities will compete on the varsity team at the VT-NEA level of competition. There are many other competitions for all students who participate.

**SOCIAL JUSTICE CLUB:** Our mission is to corrode prejudices and biases, in working toward peace and justice, by getting involved in political, economical, social and environmental affairs in our school, community and our world. Peace and justice will be gained through the development of public awareness and then later taking action focusing in our community and extending outwards. By getting involved in these affairs we will effectively and directly influence the people of our school, by working with the school to change the way we and others think and act. Students will be recruited through posters and announcements, which will inform students and anyone else interested, of the meetings. Meetings will be held mainly after school on school days but might be subject to meet at other times.

**STUDENT GOVERNMENT:** Student Government is a wonderful way for students to get involved in CHS. This group is comprised of all class officers and organizes various events throughout the year. School dances, community service events, school store, the blood drive, and aid for the homeless are just a few of the activities.

**YEARBOOK:** Venture Publications is taught as a class and an after school activity. Be part of immortalizing your years at CHS.