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**CAPE ELIZABETH  
HIGH SCHOOL**

**2019-2020**

**PROGRAM OF STUDIES**

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## **INTRODUCTION**

Dear CEHS Students and Parents:

A student's high school experience goes by quickly! The beginning of the course selection process each year is an annual reminder of that fact.

Yet it's exciting, too, to have the opportunity to plan for the future. Each of our students is different, and their course selections reflect those differences. Many of our students' entire high school careers are spent within the walls of CEHS. Here, our rigorous courses and caring teachers prepare students for success beyond high school. CEHS teachers challenge students to think, write, research, present, problem solve, and grow.

Other students venture out, taking a semester or year abroad or at another school, earning credits through online or college classes, serving as Peer Tutors, or attending the Portland Arts & Technology High School for half their days.

And then there is a part of your CEHS program that isn't encompassed in classes: our entire athletic and extracurricular program. Over 80 percent of our students participate on at least one athletic team each year. Approximately 90 percent participate in at least one of our extracurricular offerings, from Jazz Band to the Math Team, from Robotics to our Knitting Club, from Mock Trial to the state's only known Barbecue Team!

I am proud to be principal of one of Maine's (indeed, one of New England's) highest performing school districts. Each year, our graduation rate is at or near 100 percent. Each year, our students' record of achievements earns CEHS a place on Best High Schools lists.

But beyond the numbers, it's the daily signs of our respectful school culture that I believe makes us the most special – the number of students who say “thank you” to teachers as they leave class, the lockers without locks, the moving of students from class to class without annoying bells, the support we provide to students to meet their academic and emotional needs.

So welcome to another year of course selection. There are some changes this year, including new details about the shift to proficiency-based diplomas and a few new classes. Take a hard look at this program, and don't hesitate to share with your school counselor your questions, dreams, or passions that can guide your years at CEHS.

Sincerely,

Jeffrey Shedd  
Principal

## Our Vision

# Cape Schools Open Minds and Open Doors

Community • Academics • Passion • Ethics

## Our Mission

We empower students with the academic, personal, and social knowledge and skills needed to build fulfilling and engaged lives.

## Our Values

- **Community.** We value the connections among our school, local, and global communities that foster meaningful participation in a dynamic and diverse world.
- **Academics.** We value rich and varied learning experiences that support critical thinking, perseverance, effective communication, and independent and collaborative work inside and outside of the classroom.
- **Passion.** We value personal investment in learning in an environment that nourishes joy and creativity, protects risk-taking, and cultivates individual expression.
- **Ethics.** We value decision-making and actions guided by the principles of personal integrity, empathy, responsibility, and respect for self and others.

## Our Beliefs

We believe that all students can learn at high levels, but different students learn in different ways and at different speeds. We believe that it is the fundamental job of educators to ensure student learning by working continuously together to answer the following three questions:

- What do we want students to learn?
- How will we know when each student has learned?
- How will we respond when a student experiences difficulty in learning?

We believe that students will most readily learn in an environment that is safe; where they feel known and cared about; where the expectations are clear and the instruction is skillful; where educators collectively share responsibility for student learning; and where students are challenged to see real-life applications of their learning.

## **GRADUATION REQUIREMENTS**

### **Class of 2020**

To graduate, students in the class of 2020 must earn a total of 230 credits as follows:

- 40 credits (4 years) of English;
- 30 credits (3 years) of Math;
- 30 credits (3 years) of Science (Physics, Chemistry, and Biology);
- 30 credits (3 years) of Social Studies (World History I and II, U.S. History, Government);
- 10 credits (1 year) of Fine Arts;
- 5 credits (½ year) of Technology;
- 5 credits (½ year) of Fine Arts or Technology;
- 10 credits (1 year) of Physical Education;
- 5 credits (½ year) of Health; and
- 65 credits of Electives.

Although World Language credits are not required for graduation, students are **STRONGLY** encouraged to take a world language in each year of high school. Such study improves students' college admissions chances and better prepares them to work in the global economy.

**Credits are earned when courses are completed and passed.** Year-long courses, completed successfully, earn 10 credits. Semester-long courses, completed successfully, earn 5 credits. If a course is failed, students should work with their school counselor to develop a plan for making up the lost credit and/or meeting the graduation requirement. It is recommended that failed courses be made up as soon as possible so as not to jeopardize students' ability to graduate with their class.

Credit requirements to be promoted through the grades are as follows:

- 55 credit minimum for sophomore status;
- 115 credit minimum for junior status; and
- 170 credit minimum for senior status.

### **Classes of 2021, 2022, and 2023**

To graduate, students in the classes of 2021, 2022, and 2023 must:

- Demonstrate proficiency in the content areas and Guiding Principles of the Maine Learning Results; and
- Engage in learning experiences in the content areas as follows:
  - English, Math, Science, and Social Studies in each year of high school;
  - World Languages in at least two years of high school;
  - Computer, Industrial, Performing, and Visual Arts in at least two years of high school; and
  - Health and Physical Education in at least two years of high school.

More information about Graduation Requirements for all classes can be found in School Board Policy IKF, linked [here](#).

### **Early Graduation**

If a student can meet the graduation requirements of his/her class in less time than the four-year high school sequence, that student can apply for early graduation in accordance with School Board Policy IKFA, linked [here](#).

## **ACADEMIC INFORMATION**

### **Course Selection Process**

The course registration period begins with a review of the Program of Studies. Students, in collaboration with parents, teachers, and school counselors, select courses for the following year based on graduation requirements, career goals, interests, and skills. They are required to carry a minimum of six courses. A Master Schedule is then built based on student requests. Seniors are scheduled first, followed by Juniors, Sophomores, and Freshmen.

In selecting courses, students will need to consider the appropriate level of rigor to pursue. Teachers assist in this process by making recommendations that are informed by a student's grades in previous courses and standardized test scores. The intent of these recommendations is to ensure that students are able to be both challenged and successful in the courses that they choose.

Students who disagree with a teacher's recommendation may appeal to the principal or the principal's designee, who, in addition to reviewing the student's file, may require work samples in support of the appeal and/or an in-person meeting with the student and parents to discuss student readiness for the demands of the course. A common outcome of an appeal is that

conditions are set allowing the student to take the favored class level for the following year based on academic and work performance for the remainder of the current school year.

### **Grading**

Students receive a numerical course grade that equates to a letter grade as follows:

<b>Numerical Course Grade</b>	<b>Letter Grade</b>
99-100	A+
95-98	A
93-94	A-
91-92	B+
87-90	B
85-86	B-
83-84	C+
79-82	C
77-78	C-
75-76	D+
72-74	D
70-71	D-

Students whose course grade is below a 70 at the end of the course will not earn credit for it.

In keeping with our shift to proficiency-based diplomas, a student's course grade reflects progress toward learning targets that are aligned to the Cape Elizabeth Graduation Standards. These Graduation Standards comprise both the content-area standards and Guiding Principles of the Maine Learning Results and are as follows:

1. Knowledgeable Person;
2. Clear and Effective Communicator;
3. Creative and Practical Problem-Solver;
4. Responsible and Informed Citizen;
5. Integrative and Informed Thinker; and
6. Self-Directed and Reflective Learner.

The first of these Graduation Standards, Knowledgeable Person, is a grading category found in every teachers' gradebook. It encompasses all of the course and discipline-specific knowledge and skills that students learn along the way as they take and pass courses at CEHS.

The remaining five Graduation Standards emphasize student skill in cross-disciplinary areas such as reading, writing, speaking, listening, research, and problem-solving, among others. These standards are reflected in gradebook categories across multiple disciplines. The CEHS faculty is hard at work defining the process leading to the determination of proficiency against each of these Standards. That process will be defined by the end of school year 2018-2019.

Cape Elizabeth High School reports both unweighted and weighted grade point averages (GPAs) on transcripts. Unweighted GPAs are calculated by averaging all course grades, while weighted GPAs are calculated based on grades received in particular courses (those courses that can be taken at more than one level, including all courses in English, Math, Science, and Social Studies, and World Language classes at levels 4 and higher) and include a multiplier of 1.30 and 1.35 to grades received in Honors and AP courses, respectively. Beginning with the class of 2023, those grade weights will be adjusted to 1.05 and 1.10 respectively.

### **Grades and Eligibility**

While participation in extracurricular activities is an integral part of student life at CEHS and is highly encouraged, students who represent CEHS in certain activities (leadership, competitive, and performance activities) are held to a standard of academic eligibility. The covered activities are:

- All school athletic teams;
- Mock Trial;
- Theater;
- World Affairs Council/Model UN;
- Math Team;
- Science Team;
- Jazz Band;
- Natural Helpers;
- Student and Class Government;
- National Honor Society;
- Speech and Debate; and
- Robotics.

Under current School Board policy, in order for students to remain eligible for these activities on an uninterrupted basis, they must be passing a minimum of five classes at each of four grade checkpoint dates reflected in CEHS's school calendar: two end-of-semester checkpoints and two mid-semester checkpoints.



## **Academic Recognition**

- **College Book Awards:** These awards are given in the name of contributing colleges. Juniors whose grade point average places them in the top of the class are considered for these awards. Book awards are selected by a faculty committee that is chaired by the principal.
- **Maroon Medal Society:** Juniors and seniors may apply to this honorary club in the spring by completing an application of their activities and achievements. Points are awarded for each activity and achievement. A total of 180 points are needed to qualify for this society.
- **National Honor Society:** The National Honor Society recognizes juniors and seniors who have demonstrated excellence in each of the following areas: scholarship, leadership, service, and character. The scholarship criterion is based on a student's cumulative GPA at the end of the first semester of their qualifying year.
- **Top Ten Percent:** This group comprises the top ten percent of seniors on the weighted class ranking, which is compiled at the end of seven semesters of high school. The senior with the highest weighted grade point average at that point in the year is named valedictorian of the class.

## **Standardized Testing**

Standardized tests are given to assess student progress toward college and career readiness benchmark and diagnose skill gaps. In the fall, 9th, 10th, and 11th graders take the PSAT. In the spring, 11th graders take the SAT. In addition, all students take ACCUPLACER math tests at least once a year in their math courses, and 11th and 12th graders take the ACCUPLACER reading and writing tests in their English courses.

## **Student Supports**

CEHS is committed to the learning of all of its students. Supports include the Achievement Center, which is open before, during, and after school and staffed by faculty who provide individualized tutoring; Achievement Period, which occurs four days a week and is a time when all teachers are available to work with students; and Advisory Groups, which connect every student to one adult for four years and meets once a week for a check in and discussion. Additional information about student supports can be found on pp. 28-29 of the Beacon Student and Family Handbook, linked [here](#).

## **COURSE DESCRIPTIONS**

### **Alternative Pathways**

While courses offered by Cape Elizabeth faculty are the most typical way for students to earn credit, they are not the only way. Students are encouraged to consider the following alternative pathways or others that would further their academic learning and growth.

#### **College Study Program (9901)**

***Honors***

***Credit Varies***

***Grades 9-12***

CEHS students may take college classes for credit with permission of the college and as space permits. Generally, college classes are intended for classes not offered at CEHS. There are, however, situations where students may need to take a college class to earn additional credits or, for older students, to get introduced to life at college even while attending CEHS. Some of the colleges where our students have in the past earned credit are Southern Maine Community College, the University of Southern Maine, and the Maine College of Art. Please note that the cost of college attendance is the responsibility of a student's family. Semester college classes count for five CEHS credits. Full year college classes count for ten.

#### **Foreign Exchange Program**

***Unleveled***

***Credit Varies***

***Grades 11-12***

Study abroad can be a wonderfully enriching experience. CEHS both encourages foreign exchange students to come to CEHS and works closely with families to support our students who are interested in attending school in another country. Students interested in this option should meet with their school counselor by March of the previous academic year to ensure the selection of appropriate courses and smooth transition of credits.

#### **Independent Study (9002)**

***Unleveled***

***Credit Varies***

***Grades 10-12***

Independent Study involves a student learning about a topic of individual interest under the close supervision of a CEHS teacher. Independent Study allows a student to go beyond courses that CEHS offers. Independent Study may not be used to replace a course required for graduation and is graded on a pass-fail basis. Students who wish to pursue an Independent Study must get permission from the supervising teacher and meet with the school counselor prior to the first week of the relevant semester. Students interested in Independent Study can get more information from their school counselor.

**Online or Distance Learning Education (9910)**

***Level Varies***

***Credit Varies***

***Grades 9-12***

Online or distance learning courses are increasingly available to students. Such courses can be a way to supplement what CEHS has to offer, allow students to catch up or accelerate their learning on their own time, or provide an alternative instructional method. Generally, the courses must not be offered at CEHS and students have to maintain at least a "C" average to continue. Students interested in online or distance learning should discuss program options with their school counselor. Please note that the cost of online or distance learning is the responsibility of a student's family. Semester college classes count for five CEHS credits. Full year college classes count for ten.

**Other Credit-Awarding Institutions/Programs**

***Level Varies***

***Credit Varies***

***Grades 11-12***

There are many credit-awarding institutions and programs available to students. CEHS students have earned credits while sailing on a schooner run by an educational organization, participating in the Maine Coast Semester at Chewonki, and attending a ski academy during the winter. As with foreign exchange programs, students interested in these alternatives should meet with their school counselor by March of the previous academic year to plan.

**Peer Tutoring**

***Unleveled***

***Credit Varies***

***Grades 11-12***

Students who want to work as peer tutors in the Achievement Center may earn course credit for a regular, scheduled semester-long commitment. Peer Tutoring for credit may not count as a sixth course nor replace the National Honor Society requirement. Students interested in Peer Tutoring should speak to their school counselor and the Achievement Center coordinator.

**Portland Arts & Technology High School (9921)**

***Unleveled***

***Credit Varies***

***Grades 10-12***

The Portland Arts & Technology High School (PATHS), located at 196 Allen Avenue in Portland, offers a rich array of hands-on classes in traditional trades, culinary arts, visual, digital, and performance arts, and cutting-edge technologies (e.g., 3-D printing). Most programs at PATHS are designed for two years (60 credits) and students typically start in the 11th grade. Students split their day between CEHS and PATHS and are provided transportation. Brief program descriptions can be found on pp. 56-58 and additional information is linked [here](#). Students who would like to consider PATHS should contact their school counselor to arrange a visit.

**Student Driven Learning (SDL)**

***Unleveled***

***10 Credits (full year)***

***Grades 11-12***

SDL is a program that allows juniors and seniors to earn credit while pursuing their passions and exploring their interests through individual or small group (maximum two) project or problem-based learning. Projects fall into a variety of categories, including service, production, entrepreneurial, apprentice, and investigative. SDL is graded on a pass-fail basis.

*Prerequisite: Consultation with Program Coordinator, completion of application, and acceptance into the program based on strength of the application/proposal, potential to succeed, and allowable class numbers.*

**Work Study (9921)**

***Unleveled***

***Credit Varies***

***Grades 10-12***

Work Study allows CEHS students to receive school credit for part-time work experience of a minimum of ten hours per week. Students must have a job before applying for Work Study credit and receive approval from their employer, school counselor, and principal. Application guidelines and program requirements can be found in the School Counseling Office.

## Arts (Visual, Performing, Industrial/Technology)

A graduate will be able to:

1. **Disciplinary Literacy:** Show literacy in the visual, performing, and industrial/technology arts by explaining or demonstrating concepts, skills, terminology, and processes.
2. **Creative Process/Problem Solving:** Engage in the creative process/problem solving through the visual, performing, and industrial/technology arts.
3. **Creation, Performance, and Expression:** Generate creations, performances, and expressions in the visual, performing, and industrial/technology arts.
4. **Critique and Connections:** Make meaning through reflection and analysis of creations and performances in the visual, performing, and industrial/technology arts.

### Art

#### **Art Fundamentals (8001)**

**Unleveled**

**5 Credits (one semester)**

**Grades 9-12**

Art Fundamentals is an introductory course to the visual arts, as well as a prerequisite to several of our studio electives. This course offers students hands-on experience with making art, familiarity with art vocabulary and concepts, and a fuller understanding of the visual arts' role in contemporary society. Studio projects will explore two and three dimensional design, color theory, painting, and observational drawing using a variety of media. Historically significant techniques and influences will be presented and discussed with each project. Class expectations include project-related homework assignments and participation in group critiques of student work.

#### **Ceramics I (8002)**

**Unleveled**

**5 Credits (one semester)**

**Grades 9-12**

This is an introductory course in the methods and processes of forming clay. Students will learn to use handbuilding techniques such as pinch, coil, and slab construction and will also become proficient on the potter's wheel. There will be extensive study of different methods of surface decoration and glazing. Students will explore both functional and sculptural approaches to clay. Field trips to observe potters' studios and participate in raku firings may be part of the class.

**Photography I (8005)****Unleveled****5 Credits (one semester)****Grades 9-12**

Photography I serves as an introduction to the practice and appreciation of photography as an artist's tool in communicating ideas and exploring personal visions. It is a hands-on, lab-oriented course which will introduce students to the dual discipline of camera use and black and white darkroom procedure. Mastering basic technique through concept-based shooting assignments will be our primary focus, with an increasing emphasis on individual direction as the semester proceeds. Class time will consist of film processing, darkroom work and class discussion and critique. Shooting will take the place of formal homework and will approach various subjects from landscape to the human figure.

Prerequisite: 35 mm SLR film camera. Lab fee: \$40.

**Sculpture (8011)****Unleveled****5 Credits (one semester)****Grades 10-12**

This course provides a 3-dimensional approach to problem solving through a variety of media and materials such as paper, cardboard, clay, plaster, wood, wire, metal, and stone. Techniques will include modeling, carving, assemblage, casting, and paper folding. The scale of problems presented will range from small pieces to larger freestanding forms.

Prerequisite: Art Fundamentals or Ceramics I.

**Painting and Drawing (8012)****Unleveled****5 Credits (one semester)****Grades 10-12**

Painting and Drawing is a course designed for students who want to develop their skill and personal style using 2-D media. Drawing work in the class will strengthen understanding of composition, value, perspective, gesture, and texture. Painting projects will deepen students' understanding of color theory and paint handling, using watercolor and acrylic. The class will explore both traditional subjects, such as observational work from the still life, landscape and figure, and more contemporary painting ideas. With each project the class will study relevant work by historical and contemporary artists. Active participation in class critiques, studio work, and project related homework will be expected.

Prerequisite: Art Fundamentals and teacher approval.

**Advanced Ceramics (8003)****Honors****5 Credits (one semester)****Grades 10-12**

Advanced Ceramics is designed for students who want to continue developing skills learned in Ceramics I. Students will learn advanced wheel techniques, including thrown table settings, and complex forms such as teapots. They will work with a variety of decoration methods from painted majolica to sgraffito. Handbuilding techniques will be used to create large sculptural forms such as lamps. Students will study the work of other ceramic traditions and contemporary artists. Work outside of class will be expected.

Prerequisite: Ceramics I and teacher approval.

**Advanced Photography (8006)****Honors****5 Credits (one semester)****Grades 10-12**

Advanced Photography is designed for students who have demonstrated proficiency in the use of the 35mm camera and the traditional darkroom. A grade average of 92 or better in Photo 1 is the established benchmark for admission to this class. The focus of this class is to develop personal "voice" and content in one's work, often working with more conceptually based subject matter. Students will begin the semester by developing a personal portfolio of work shot from the previous summer, then proceed to investigate several theme-based assignments. Students will work primarily with digitally produced work. As with Photo 1, shooting will take place outside of scheduled class time. The course will incorporate critical analysis of photographic imagery, historical influences on contemporary work, and will culminate with the presentation of individual final portfolios.

Prerequisite: Successful completion of Photography I, 35 mm DSLR camera, and teacher approval. Lab fee: \$40.00.

**Advanced Art Studio (8020)****Honors****5 or 10 Credits (semester or full year)****Grades 10-12**

Advanced Art Studio is a class offered to those with a continuing interest in visual art and who may anticipate further study on the college level. Students will work primarily in drawing and painting media, with topics to include the human figure, the urban landscape, conceptual abstraction, and the development of a personal style. Students will be challenged to become more sophisticated in their thinking and develop mature technical skills while developing portfolio-quality work. Weekly sketchbook assignments will be an integral part of the class, as will group discussion and critique. Please note that this elective course can be taken for one semester for 5 credits or for the full year for 10 credits.

Prerequisite: Art Fundamentals, Painting and Drawing, and teacher approval.

## **Music**

### **Concert Choir (8204)**

***Unleveled***

***10 Credits (full year)***

***Grades 9-12***

CEHS's largest vocal group, the Concert Choir studies performance and singing in a comfortable learning environment. Students will enjoy singing in two to four part harmony. Music of many styles will be performed, such as Broadway, classical, folk, jazz, gospel, and much more. They will also study beginning level music theory and history as they pertain to the music. The Choir will perform concerts in the community and participate in choral festivals and events throughout Maine.

### **Treble Choir (8205)**

***Unleveled***

***10 Credits (full year)***

***Grades 11-12***

Do you LOVE to sing? Do you want an opportunity to sing with an advanced-level group? Treble Choir is an advanced, select vocal ensemble of sopranos and altos, for the intermediate and advanced vocalist. It is a fun, performance-based course designed to develop vocal ability, musical aptitude, and literacy at an advanced level. More challenging note-reading and musical concepts are learned and built upon, as are the elements of healthy and expressive singing. Students are exposed to challenging music from varied genres and time periods. Music will include a mixture of contemporary to classical, and also a good mixture of competitive a cappella songs (think Pitch Perfect!). This group will perform at least three evening concerts a year and will sometimes perform outside the school. Prior choral experience is preferred, but not required.

### **Guitar (8321)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

Guitar class provides an introduction to playing chords and reading music on guitar with an emphasis on practice and rehearsal skills, through which students can eventually learn to play on their own. Please note that this class is for beginners only, with no previous music or guitar experience necessary.



**Symphonic Band (8302)****Unleveled****10 Credits (full year)****Grades 9-10**

Symphonic Band is a large instrumental performing group. Students will study instrumental performance techniques. Symphonic Band members are required to perform three public concerts per year. We anticipate scheduling two separate but equal symphonic bands. Assignment will depend on instrumentation needs and schedule availability. Please note that enrollment in either Symphonic Band or Wind Symphony is a prerequisite for participation in after-school jazz activities.

Prerequisite: Previous band experience or teacher approval.

**Wind Symphony (8303)****Unleveled****10 Credits (full year)****Grades 11-12**

A medium-sized instrumental performing group for upperclassmen and advanced underclassmen. Students will participate in three public concerts and graduation. Please note that enrollment in either Symphonic Band or Wind Symphony is a prerequisite for participation in after-school jazz activities.

Prerequisite: Audition and/or teacher approval.

**Jazz Improvisation (8304)****Unleveled****5 or 10 Credits (semester or full year) Grades 9-12**

This is a course for students interested in learning jazz improvisation skills or improving the range of skills they already possess. Previous experience is not necessary. Students will learn to solo over standard tunes and about chords, chord scales, and jazz harmony. Band-In-A-Box, a computer-assisted improvisation tool, will also be utilized and taught. Please note that this elective course can be taken for one semester for 5 credits or for the full year for 10 credits.

Prerequisite: Concurrent enrollment in band.

**Music Theory (8311)****Unleveled****5 Credits (one semester)****Grades 9-12**

Students considering any music courses in college should include music theory and ear training in order to be prepared for auditions and entry level placement exams. Students will study basic harmony, learn to write four-part harmony, compose melodies, and recognize normal and altered intervals, chords, modes, and scales.

Prerequisite: A music ensemble for one semester or teacher approval.

## **Theatre**

### **Theatre Basics (8102)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

Theatre Basics is an introductory course for students who have had little or no experience in theatre. These students want to give theatre a try and to take from it life skills that go beyond the stage. Production is not emphasized. Through classroom exercises and examination of texts, we look at theatre in life itself and learn better how to use our own unique inner resources to engage life with understanding and confidence.

### **Technical Theatre I (8101)**

### **Technical Theatre II (8105)**

***Unleveled***

***5 or 10 Credits (semester or full year)***

***Grades 9-12***

What goes into making theatre? Lighting, sound, set design -- these elements let us examine theoretical principles. The theatre itself gives us an environment for practical application of knowledge and skills. It becomes a place of low tech tools -- hammer, saw, screwdriver, plywood, and paint -- as well as advanced technical equipment in sound and lights. Some homework will be required when we meet as a group for intensive work, but most of the learning is best described as hands-on and completed within the class time. We design and run shows that are produced in the auditorium, including concerts, visiting artists, one acts, musicals, and original shows. If you join us, be ready to use technology to think inventively. Please note that this course can be taken for one semester for 5 credits or for the full year for 10 credits.

### **Theatre Workshop (8104)**

***Honors***

***5 Credits (one semester)***

***Grades 10-12***

This Advanced Theatre course is an association of artists, mostly in performing arts, but with designers and advanced technicians working collaboratively. A production course, the stage will shine with our mutual work. Typical work includes a one act play, children's theatre, and original works. We also work with a large group of co-curricular students who bring their efforts to bear in our highly praised shows. But the demands are rigorous and time consuming.

***Prerequisite:*** Audition and/or teacher approval.

### **Public Speaking/Public Performance (8106)**

***Unleveled***

***5 Credits (one semester)***

***Grades 10-12***

Want to develop your public speaking skills? Whether it be for class discussion, formal speech making, or theatre pieces -- this course will fit the bill. We will talk a lot, be on our feet, and value the spoken word. You will find voice in the sense of being resourceful as well as in learning skills that help you move easily in public.

## **Industrial/Technology**

### **Technology I (7009)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

Technology I is a broad-based course in technology. Students will have the opportunity to explore a wide range of areas including residential electricity, basic home maintenance, electronics, welding, machine tools and bench work, basic automotive maintenance, small engine maintenance, and more. All units are hands-on projects done in the Technology lab.

### **Technology II (7019)**

### **Technology III (7029)**

***Unleveled***

***5 or 10 Credits (semester or full year) Grades 10-12***

Students who elect to take Technology II or Technology III will undertake an advanced project that will encompass one or more of the areas studied in Technology I. Students should meet with the instructor for prior approval of their desired project or to outline other possibilities. Examples of past projects are boat trailer, utility trailer, log splitter, go-kart, and fly tying vise. Please note that this course can be taken for one semester for 5 credits or for the full year for 10 credits.

Prerequisite: *Technology I.*

### **Woodworking I (7089)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

Woodworking I is a project-based course where students will develop skills and knowledge in the use of tools, equipment, and materials typically used in the field of woodworking. This will be achieved through the development of assigned and student selected projects.

### **Woodworking II (7099)**

***Unleveled***

***5 Credits (one semester)***

***Grades 10-12***

Woodworking II is a continuation of Woodworking I. This is also a project-based course where students will develop advanced skills and knowledge in the use of tools, equipment, and materials typically used in the field of woodworking.

Prerequisite: *Woodworking I.*

**Architectural Drafting (7059)****Unleveled****5 Credits (one semester)****Grades 9-12**

Students will develop assigned residential architectural working drawings. Emphasis will be placed on how to draw a set of plans using standards and techniques that are common to the industry. Attention to standard design, methods, materials, and building codes will also be emphasized.

**Architectural Design (7069)****Unleveled****5 Credits (one semester)****Grades 10-12**

Students may opt to continue their Architectural Drafting experience by taking Architectural Design. Emphasis will be placed on solutions to assigned design problems while the expectations of quality plans will still have significant priority. Students will need to draw on their experience in Architectural Drafting to expect reasonable success in Architectural Design. Use of CAD software may be employed. Classes of 2019 and 2020, please note that this course counts towards fulfillment of an Art credit or Technology credit.

Prerequisite: *Architectural Drafting.*

**Boatbuilding (7079)****Unleveled****10 Credits (full year)****Grades 10-12**

Boatbuilding can be taken as an Independent Study. The student will build a boat of his or her choice taking into consideration limitations of space and time. Examples of boats done in the past are sea kayak, canoe, small skiff, and small power boats.

Prerequisite: *Woodworking I and teacher approval.*

**Keyboarding and Word Processing (7139)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

This course enables students to develop touch typing skills and then improve those skills as they learn basic word processing tasks. An integrated software package combines keyboarding with a popular word processing program, where students will learn to create and format standard business documents. Progress will be made at individual rates, but all students will be evaluated on speed, classwork, tests, and word processing activities.

**Image Management (7189)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

This course will help prepare students for the increasingly visual world of work and play. A variety of techniques will be examined in learning to manage and manipulate file types and digital images. Students will work with Adobe Creative Cloud products like Photoshop. A basic understanding of graphics is helpful but not required.

**Video Production (7199)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

This course introduces students to the fundamentals of video production from pre-production (planning, storyboarding) to production (shooting, lighting, sound, green screen) to post production (editing, compositing, titles, audio). Students will produce short videos using current video and sound editing software. Projects will also introduce students to working in teams, production deadlines, equipment care, and filming techniques. Basic understanding of computer use and software operation is preferred.

**Advanced Video Production (7200)**

***Unleveled***

***5 Credits (one semester)***

***Grades 10-12***

This course will give students the chance to develop more sophisticated and complex projects and expand their basic production and editing skills using leading industry editing software. Students will be required to work in various production roles both in front of and behind the camera. This course will include covering/taping events in and out of school. Students with advanced skills and experience can have the prerequisite waived at the instructor's discretion.

*Prerequisite: Video Production*

**Digital Design (7209)****Unleveled****5 Credits (one semester)****Grades 9-12**

The goal of this course is to offer students a broad overview of computer design techniques. The focus will be on print publications such as advertisements, posters, and logo design. Students will become comfortable with typography, color symbolism, layout techniques, and related technology using InDesign and Photoshop. They will develop their skills by completing a variety of projects using effective design elements and principles. The focus will be on finding creative visual solutions to communication problems. The final assignment will be development of a corporate identity for a fictitious company (logo, business card, stationery, and promotional material).

**Yearbook Leadership (7228)****Unleveled****5 Credits (one semester)****Grades 9-12**

Yearbook is organized as an after-school extracurricular activity. However, there are opportunities for up to five students to earn 5 credits in Yearbook -- and their technology credit -- by working in leadership positions for the Yearbook. If you are interested in being considered for this opportunity, please speak with Ms. DeWan in the Ceramics room. Any students opting for this opportunity will need to devote considerable time to the yearbook at meetings and work sessions and home after hours. Please note that this course will be graded on a pass-fail basis.

*Prerequisite: Teacher approval -- limited to five students.*

**Introduction to Computer Programming (7119)****Unleveled****5 Credits (one semester)****Grades 9-12**

Are you curious about computer programming? Interested in coding as a career? Learn the basics of computer programming using the CodeHS curriculum. Students with little or no experience will learn the fundamentals of computer science via the powerful programming language of JavaScript. CodeHS introduces the basics of JavaScript, including variables, user input, control structures, functions with parameters and return values, and basic graphics. The entire curriculum is online and the course is hands-on. Students watch instructional videos, take quizzes, explore sample programs, solve problems, and complete challenging projects. The majority of the work will be completed and submitted each class period. This course requires students to use basic English as well as Algebra and Geometry skills to solve problems.

**AP Computer Science A (7118)****Advanced Placement****10 Credits (full year)****Grades 11-12**

AP Computer Science A is equivalent to a first-semester, college level course in the computer science. Topics include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using *Java language*. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities. The assumed prerequisites include knowledge of basic English, Algebra, and Geometry. Students should also be comfortable with functions and concepts associated with functions. It's important that students understand that any computer science course builds on a foundation of mathematical reasoning and logic that should be acquired prior to taking this course. Students must have taken at least one semester of computer programming and complete a unit of programming prior to leaving for summer break in order to take the course.

Prerequisite: *Introduction to Computer Programming and teacher approval.*

**Personal Finance (7159)****Unleveled****5 Credits (one semester)****Grades 10-12**

This course will cover the basics of personal finance and accounting principles. Students will learn that "cash flow" is an important personal and business concept. They will write checks, reconcile bank statements, understand credit card benefits and risks, and learn about insurance. Students will compete in a national simulation as a recent college graduate starting a new job. They will learn first hand about personal property, loans, renting an apartment, and how to be a more informed and confident money manager. What's a budget? It's time to find out!

## English Language Arts

*A graduate will be able to:*

1. **Reading:** Read, interpret, analyze, and evaluate appropriately complex literary and informational texts independently and proficiently.
2. **Writing:** Produce clear and coherent argumentative, informative, and narrative writing for a range of tasks, purposes, and audiences.
3. **Speaking and Listening:** Participate effectively in a range of collaborative discussions and convey information with a clear and distinctive perspective.
4. **Language:** Demonstrate command and knowledge of language, including the conventions of standard English grammar, the meaning of unknown words in context, and the usage of figurative language.

### Honors and AP Placement

All Honors and AP placements require department approval.

- **Honors Freshman English**

Placement will be based on January NWEA scores, reading level, and teacher recommendation that will take into account critical thinking skills, ability to work independently, work completion, and work ethic.

- **Honors Sophomore, Junior, and Senior English**

- **Students who wish to take Honors English:** Students who have a 93 or better in CP English may be recommended to move to Honors English. They should also possess higher level thinking skills, the ability to move quickly through new material, and a history of work completion.
- **Students who wish to maintain current placement in Honors English:** Students with an 85 or better in Honors English may maintain this placement.
- **Students who may be recommended to take CP English:** Students with an 84 or below in Honors English may be recommended to take CP English.

- **AP Junior and Senior English**

- **Students who wish to take AP English:** Students are required to sit for a practice AP exam in the early spring. The score from this assessment is used to help determine the most appropriate placement. Students who enroll in AP English are expected to demonstrate command of the assigned summer work;



failure to do so results in revocation of the placement.

- **Students who wish to maintain current placement in AP English:** Students who have earned at least an 85 in AP Junior English as well as at least a 3 on the AP Language and Composition exam may enroll in AP Literature and Composition.

**CP Freshman English (1102)**

***College Preparatory***

***10 Credits (full year)***

***Grade 9***

CP Freshman English builds on the skills acquired in the study of language arts at the middle school level. CP Freshman English focuses on developing student mastery of narrative and academic writing, critical reading skills, fundamental grammar, and an expanding vocabulary. Texts may include Glencoe's *Vocabulary Builder Course Four*, and such representative works of literature as Steinbeck's *Of Mice and Men* and Shakespeare's *Romeo and Juliet*.

**Honors Freshman English (1101)**

***Honors***

***10 Credits (full year)***

***Grade 9***

Honors Freshman English covers the same core curriculum as the CP level, while adding a level of complexity to instruction and assessments. Writing assignments are more frequent and often lengthier. More challenging reading in greater quantity and at a faster pace will also be part of the course. Further readings may include long novels from Dickens or units of poetry. While time and attention will be devoted to the development of core skills, at the honors level students should be more readily prepared to demonstrate competence in writing, reading, grammar, and vocabulary.

*Prerequisite:* Department approval based on January NWEA scores, reading level, and current teacher recommendation.

**CP Sophomore English (1202)**

***College Preparatory***

***10 Credits (full year)***

***Grade 10***

As the second part of a two-year sequence that begins with Freshman English, Sophomore English continues the focus on writing in a variety of genres including narrative and analytic writing with an increased emphasis on critical reading skills, fundamental grammar, and an expanding vocabulary. Texts may include such representative works of literature as Shakespeare's *Othello*, Homer's *The Odyssey*, and Salinger's *The Catcher in the Rye*.

**Honors Sophomore English (1201)****Honors****10 Credits (full year)****Grade 10**

Honors Sophomore English covers the same core curriculum as the CP level, while adding a level of complexity to instruction and assessments. Writing assignments are more frequent and often lengthier. More challenging reading in greater quantity and at a faster pace will also be part of the course. Further readings may include Atwood's *The Handmaid's Tale* and Morrison's *Sula*. While time and attention will be devoted to the development of core skills, at the honors level students should be more readily prepared to demonstrate competence in writing, reading, grammar, and vocabulary.

Prerequisite: Department approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.

**CP Junior English (1302)****College Preparatory****10 Credits (full year)****Grade 11**

In addition to a continued focus on the development of writing, reading, grammar, and vocabulary skills introduced in the freshman and sophomore years, CP Junior English focuses heavily on the study of non-fiction while examining how the author's choice of language impacts meaning. The course also emphasizes, in the words of the College Board, "The expository, analytical and argumentative writing that forms the basis of academic and professional communication, as well as the personal and reflective writing that fosters the development of writing facility in any context." Students should be readily prepared to demonstrate competence in speeches and debates. Texts may include Glencoe's *Vocabulary Builder Course Six*, and such representative works of literature and literary nonfiction as O'Brien's *The Things They Carried* and Walls' *The Glass Castle*.

**Honors Junior English (1301)****Honors****10 Credits (full year)****Grade 11**

Honors Junior English covers the same core curriculum as the CP level, while adding a level of complexity to instruction and assessments. Writing assignments are more frequent and often lengthier. More challenging reading in greater quantity and at a faster pace will also be part of the course. Further readings may include Capote's *In Cold Blood* and Fitzgerald's *The Great Gatsby*. While time and attention will be devoted to the development of core skills, at the honors level students should be more readily prepared to demonstrate competence in writing, reading, grammar, and vocabulary.

Prerequisite: Department approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.

**AP English Language and Composition (1300)**

**Advanced Placement**

**10 Credits (full year)**

**Grade 11**

AP English Language and Composition engages students in extensive reading and writing assignments based primarily on non-fiction texts. The expectations for AP level courses are especially high, and are designed for students who have the skills, interest, and motivation to be successful in a course that is designed to mimic college-level work. All students enrolled in this course are required to take the AP English Language and Composition exam in May. Students should also anticipate a challenging summer assignment.

Prerequisite: Department approval along with at least an 85 average in Honors Sophomore English, a practice AP exam, and command of the summer reading material.

**CP Film and Media Studies (1423)**

**Honors Film and Media Studies (1425)**

**Level Varies**

**10 Credits (full year)**

**Grade 12**

Film and Media studies is the study of the production, aesthetics, and history of the 20th century's most important visual medium, the cinema, as well as an examination into the way we engage and interact with the electronic media we are surrounded by yet all too often take for granted. Our primary interests in this course will be in examining the development of cinema by exploring some of the most important films in the history of cinema, in reading the language of film in order to improve our critical understanding of the way texts create meaning, in writing for analytical, argumentative, personal, and creative purposes, and in developing vocabulary and language facility.

Prerequisite for Honors: Department approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.

**CP Composition (1503)**

**Dual Enrollment Composition**

**Level Varies**

**10 Credits (full year)**

**Grade 12**

English Composition is the introduction to college writing across the curriculum. It will introduce students to standard rhetorical modes. An emphasis will be placed upon writing as a process of creating first drafts then revising, rewriting, and proofreading them for accuracy, clarity, and succinctness of written expression. The course will explore the distinctions between spoken and written, formal and informal uses of language. The course will also provide an introduction to research and the task of producing a formal research paper that follows MLA style and documentation practices.

Prerequisite: SAT or ACCUPLACER test scores required to qualify to take the class as a concurrent class at SMCC. If taken as a concurrent class possible college credit available.

**CP Literature: Monsters and Misfits (1504)**

**Honors Literature: Monsters and Misfits (1505)**

**Level Varies**

**10 Credits (full year)**

**Grade 12**

What or whom do we label as a “monster” or a “misfit” and why? What monstrosities and outsiders have been unleashed through storytelling? In *Monsters and Misfits*, we will study the ways in which diverse authors explore these questions as well as examine some well known monsters and misfits in our own culture, both fictional and real. Works will include mythological and modern texts such as *Beowulf*, *The Road*, *Frankenstein in Baghdad*, and *Hillbilly Elegy*. Our focus will be on reading the language of literature in order to improve our critical understanding of the way texts create meaning, on writing for analytical, argumentative, personal, and creative purposes, and on developing vocabulary and language facility.

Prerequisite for Honors: Department approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.

**AP English Literature and Composition (1400)**

**Advanced Placement**

**10 credits (full year)**

**Grade 12**

AP English Literature and Composition is designed for students who have the skills, interest, and motivation to be successful in a college-level class. As such, the expectations for the course are especially high. The course will engage students in the careful reading and critical analysis of imaginative literature. As a result, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. All students enrolled in this course are required to take the AP English Literature and Composition exam in May. Students should also anticipate a challenging summer assignment.

Prerequisite for students currently enrolled in AP Language and Composition: Department approval, at least an 85 average in AP Language, at least a 3 on the AP Language exam, command of summer reading material.

Prerequisite for students currently enrolled in Honors Junior English: Department approval, at least an 85 average in Honors Sophomore English, practice AP exam, command of summer reading material.

## Health and Physical Education

*A graduate will be able to:*

1. **Health Concepts and Risk Reduction:** Demonstrate an understanding of health concepts and behaviors in order to prevent disease and reduce risk.
2. **Health Information, Services, and Products:** Acquire valid information about health issues, services, and products.
3. **Influences on Health:** Demonstrate an understanding of how media techniques, technology, peers, and family influence behaviors that affect health.
4. **Communication and Advocacy:** Use skillful communication to enhance personal and family health.
5. **Decision-Making and Goal-Setting:** Set personal goals and make decisions that lead to better health.
6. **Movement/Motor Skills and Knowledge:** Apply principles of movement for improved performance.
7. **Physical Fitness Activities and Knowledge:** Apply fitness concepts.
8. **Personal and Social Skills and Knowledge:** Demonstrate responsible personal and social behavior in physical activity settings.

### **Health I (6119)**

***Unleveled***

***5 Credits (one semester)***

***Grade 9***

Health I is a required course that focuses on healthy decision making and self awareness. Topics of discussion will include nutrition, personal health, mental health and suicide prevention, drug and alcohol use, first aid, relationships, sexuality, and stress management. Evaluation will be based on a combination of knowledge testing, projects, presentations, and participation in class discussions.

### **Health Forum (6609)**

***Unleveled***

***5 Credits (one semester)***

***Grades 11-12***

Want to learn to manage stress? Sleep better? Explore social issues like dating violence? AIDS? Addictive behaviors? Then, this is the course for you! Health Forum is an issue-oriented, discussion-based course for juniors and seniors. Additional areas of discussion will include mental health, body image, eating disorders, suicide prevention, nutrition/cooking, relationships, and sexuality.

**Psychology of Growth and Development (6619)**

**Unleveled**

**5 Credits (one semester)**

**Grades 11-12**

Psychology of Growth and Development is an elective course for students who are interested in learning more about human behavior. Key concepts include why people behave as they do and what effects their behaviors have on themselves and others. Both psychology and abnormal psychology are explored.

**Physical Education I (6109)**

**Unleveled**

**5 Credits (one semester)**

**Grades 9-12**

Physical Education I is a required course that focuses on lifetime sports, cooperation, and safety. Activities include cooperative games, racquet sports, golf, soccer, field hockey, water safety, and CPR certification. Students will be evaluated on knowledge, active participation, skill tests, and presentations.

**Physical Education II (6209)**

**Unleveled**

**5 Credits (one semester)**

**Grades 10-12**

Physical Education II is a required course offered to students who have successfully completed Physical Education I. Cooperation, communication, and leadership skills are all developed during a mixture of adventure, fitness, recreation, and sports. Students will have the opportunity to explore their fears and apply their strengths as well as receive their CPR recertification in this class. Evaluation includes knowledge testing, projects, presentations, and active participation.

Prerequisite: Physical Education.

**Physical Education Adventure (6629)**

**Unleveled**

**5 Credits (one semester)**

**Grade 12**

This elective course is offered to all seniors who have completed Physical Education I and Physical Education II. Students will learn sea kayaking, mountain biking, hiking, fly fishing, orienteering, horseback riding, paddleboarding, and climbing techniques, as well as first aid and CPR. Physical Education Adventure classes will take place at local ponds, rivers, trails, and climbing facilities with at least one overnight camping trip.

Prerequisite: Physical Education I, Physical Education II, and teacher approval.

## Mathematics

A graduate will be able to:

1. **Number and Quantity:** Reason and model quantitatively to solve problems.
2. **Algebra:** Create, simplify, solve, and model algebraic expressions.
3. **Geometry:** Model and apply geometric concepts.
4. **Functions:** Analyze, graph, and model functions.
5. **Statistics and Probability:** Describe, analyze, and make predictions about real-world data.

### Requirements

Calculators (preferably TI-83 or TI-84) required for all math courses.

#### **CP Pre-Algebra (2019)**

**College Preparatory**

**10 Credits (full year)**

**Grade 9**

This course reviews the foundational skills needed for success in Algebra I, such as operations with integers and fractions, and introduces many beginning Algebra I skills, including using and manipulating variables in expressions and equations.

Prerequisite: *Teacher recommendation.*

#### **CP Algebra I (2125)**

**College Preparatory**

**10 Credits (full year)**

**Grades 9 -12**

This course is an introduction to the "language of mathematics". Topics to be covered include basic concepts and operations in algebra, linear equations and inequalities, word problems, graphing, exponential functions, polynomials, quadratic equations, and systems of equations. Students will learn to analyze graphs through the use of technology.

#### **Honors Geometry (2131)**

**Honors**

**10 Credits (full year)**

**Grades 9 -12**

The main goal is to provide students with a clear understanding of two-dimensional and three-dimensional figures and the relationships among them. This course starts with points, lines, planes and space then builds to perimeter and area in polygons and surface area and volume in solid figures. Transformations are studied from congruence to similarity and symmetry. Logic, formal proof and constructions are a feature of this course.

Prerequisite: *Teacher recommendation or department approval.*

**Honors Algebra II (2145)****Honors****10 Credits (full year)****Grades 9 -12**

This course might best be described as "what every high school graduate should know about mathematics." Topics to be covered include a review of linear equations, systems of equations, quadratics, powers and roots, exponents and logarithms, trigonometry, and polynomials. Students will learn to analyze functions through the use of technology.

Prerequisite: Teacher recommendation or department approval.

**CP Algebra II (2146)****College Preparatory****10 Credits (full year)****Grades 9-12**

This course uses the same curriculum as Honors Algebra II, but takes a longer look at fewer topics to give the student a solid base in the more important topics of the course. Students are instructed in the use of technology to understand and analyze functions.

Prerequisite: CP Algebra I.

**CP Geometry, Statistics, and Trigonometry (2135)****College Preparatory****10 Credits (full year)****Grades 10-12**

This course introduces many of the most important "non-algebra" topics in a high school mathematics curriculum. These topics include probability and statistics, the tools of geometry, area and volume, and triangle and circle trigonometry. This course includes preparation for the SAT exam.

Prerequisite: CP Algebra II.

**Honors Functions, Statistics, and Trigonometry (2161)****Honors****10 Credits (full year)****Grades 10-12**

Functions, statistics, and trigonometry are areas of mathematics which come from real-world situations. Each type of function is studied for its application to real-world problems. Function topics include linear, quadratic, exponential, logarithmic, trigonometric, polynomial, and circular models. Trigonometry and statistics will be reviewed and extended through practical applications.

Prerequisite: Honors Algebra II.



**AP Statistics (2160)**  
**Advanced Placement**

**10 Credits (full year)**

**Grades 10-12**

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: 1) exploring data: observing patterns and departures from patterns; 2) planning a study: describing what and how to measure; 3) anticipating patterns: producing models using probability theory and simulation; and 4) statistical inference: confirming models. Students are required to take the AP Statistics exam in May.

*Prerequisite: 85 or better in Honors Algebra II or department approval.*

**CP Quantitative Reasoning (2167)**  
**Dual Enrollment Quantitative Reasoning (2166)**

**Level Varies**

**10 Credits (full year)**

**Grade 12**

This course explores connections between mathematics and various facets of modern life. Quantitative reasoning enables both understanding and decision-making about aspects of work, money management, civic participation, and recreation. Topics in this course include unit analysis, percentages, personal finance, statistics, probability, linear and exponential growth, mathematical modeling, and geometry.

*Prerequisite: Required SAT or ACCUPLACER Placement Test Scores to qualify to take the class as a concurrent class at SMCC. If taken as a concurrent class, possible college credit available.*

**CP Precalculus (2172)**  
**College Preparatory**

**10 Credits (full year)**

**Grades 10-12**

This course offers a review and extension of the functions taught in Algebra II (linear, polynomial, rational, exponential, logarithmic) and a more advanced study of triangle and circular trigonometry. Some discrete mathematics topics may be introduced, if time allows.

*Prerequisite: CP Geometry, Statistics, and Trigonometry, CP or Honors Functions, Statistics, and Trigonometry, or AP Statistics.*

**Honors Precalculus (2171)****Honors****10 Credits (full year)****Grades 10-12**

This course offers a deeper and more advanced investigation of the functions taught in Algebra II (linear, polynomial, rational, exponential, logarithmic), a much more comprehensive study of trigonometry, and an introduction to discrete math and calculus topics.

Prerequisite: 85 or better in Honors Functions, Statistics, and Trigonometry or AP Statistics or department approval.

**AP Calculus AB (2170)****Advanced Placement****10 Credits (full year)****Grades 11-12**

In this course students will study the cornerstones of calculus -- the derivative and the integral. Students will approach ideas through the concept of functions and will learn applications of these concepts. This course is very demanding and requires a lot of work outside of class. Students should come to this class with a strong understanding of functions, trigonometry, logarithms, and exponents. Students are required to take the AP Calculus AB exam in May.

Prerequisite: Honors Precalculus and teacher recommendation.

**AP Calculus BC (2180)****Advanced Placement****10 Credits (full year)****Grades 11-12**

In this course students will study the cornerstones of calculus -- the derivative and the integral. The topic outline for Calculus BC includes all Calculus AB topics. Additional topics include parametric, polar and vector functions, Euler's Method, length of a curve, antiderivatives by parts and partial fractions, and improper integrals and series. Students are required to take the AP Calculus BC exam in May.

Prerequisite: Honors Precalculus and teacher recommendation.

## Science and Engineering

*A graduate will be able to:*

1. **Patterns:** Determine patterns of forms and events and how they guide organization and classification, and reflect on relationships and the factors that influence them.
2. **Cause and Effect:** Investigate, test, and explain (sometimes simple and sometimes multifaceted) causal relationships and their mechanisms and use these mechanisms to predict and explain events in new contexts.
3. **Scale, Proportion, and Quantity:** Determine relevance relating to size, time, and energy, and explain how changes in scale, proportion, or quantity affect a system's structure or performance.
4. **Systems and System Models:** Define systems by specifying boundaries and making models in order to provide tools for understanding and testing applicable ideas.
5. **Energy and Matter:** Explain the possibilities and limitations of systems by tracking fluxes of energy and matter into, out of, and within those systems.
6. **Structure and Function:** Analyze the shape of a structure and its substructure and determine its properties and functions.
7. **Stability and Change:** Explain, for both natural and built systems, conditions of stability and determinants of rates of change or evolution of a system.
8. **Scientific Communication:** Obtain, evaluate, and communicate scientific information orally and in writing.

### Honors and AP Placement

All Honors and AP placements require department approval.

- **Grade 9**

Placement will be based on January NWEA scores, reading level, and teacher recommendation that will take into account critical thinking skills, ability to work independently, work completion, and work ethic.

- **Grades 10, 11, and 12**

- **Students who wish to move up a level:** Students who have a 93 or better in their current level may be recommended to move up a level. They should also possess higher level thinking skills, the ability to move quickly through new material, and a history of work completion.
- **Students who wish to maintain current placement:** Students with an 85 or better in their current level may maintain this placement.
- **Students who may be recommended to move down a level:** Students with an 84 or below in an Honors or AP course may be recommended to move down a level.

## Physics

### **CP Physical Science (3109)**

**College Preparatory**

**10 Credits (full year)**

**Grade 9**

This course will cover an introduction to a wide variety of topics within physics, including kinematics, mechanics (how forces and motion are related), energy, torque, fluid concepts, vibrations and waves, sound, and electricity and magnetism. A theme of the course is how fundamental math (including graphing, working with ratios, use of very large and very small numbers) applies in each of these topics. This course is for students who need extra support in any of the basic skills areas: writing, mathematics, organization, or study skills. Please note that this course will have a double lab period once every four days for the first semester.

Prerequisite: *Teacher recommendation.*

### **CP Physics (3102)**

**College Preparatory**

**10 Credits (full year)**

**Grade 9**

Course objectives are to equip students with an understanding of the processes of science, to enable students to master selected concepts of physics, to develop students' thinking and problem solving skills and to provide students a foundation for college. Students will need to use conceptual reasoning and some basic mathematical reasoning in solving physics problems. Students learn how to *do* science by performing an experiment at the beginning of each unit. Developmentally appropriate writing and critical thinking skills are a must for this class. This course will have a double lab period once every four days for the first semester. Topics covered in CP Physics include: scientific analysis, constant velocity, acceleration, forces, energy and momentum.

### **Honors Physics (3101)**

**Honors**

**10 Credits (full year)**

**Grade 9**

Course objectives are to equip students with an understanding of the processes of science, to enable students to master selected concepts of physics, to develop students' thinking and problem solving skills and to provide students a foundation for college. Students need to use mathematical reasoning (arithmetic, algebraic and trigonometric calculations and reasoning) in solving physics problems. Students who are successful in this class are typically taking Honors Geometry or higher. Students learn how to *do* science by performing an experiment at the beginning of each unit. Strong writing and critical thinking skills are a must for this class. Please note that this course will have a double lab period once every four days for the second semester.

Prerequisite: Department approval based on January NWEA scores, math level and teacher recommendation that will take into account critical thinking skills, ability to work independently, work completion and work ethic.

## **Chemistry**

### **CP Chemical Science (3306)**

**College Preparatory**

**10 Credits (full year)**

**Grade 10**

CP Chemical Science

Chemistry is the second step in the core sequence of science. CP Chemical Science closely follows the pace, topic and lab sequence of CP Chemistry, but where possible some topics within a unit are reduced in scope or removed to allow for repeated in-class practice of more fundamental parts of the unit. This approach gives students a strong conceptual basis for understanding chemistry principles. This course is for students who need extra support in any of the basic skills areas: writing, mathematics, organization, or study skills. This course will have a double lab period once every four days for the first semester.

Prerequisite: Physics and teacher recommendation.

### **CP Chemistry (3302)**

**College Preparatory**

**10 Credits (full year)**

**Grade 10**

The second step in the core sequence of science, CP Chemistry builds upon the fundamental concepts explored in Physics. Concepts covered include atomic theory, periodic table, chemical bonds, quantitative chemistry, thermochemistry and chemical kinetics. Students are exposed to organic chemistry, acids and bases and electrochemistry throughout the year. This course is based on hands on activities and conceptual chemistry with an application of mathematics and critical thinking. Students are expected to understand and explain how and why things happen the way they do in chemistry. Strong study skills and homework completion are essential for success in this class. Please note that this course will have a double lab period once every four days for the first semester.

Prerequisite: Physics.

### **Honors Chemistry (3301)**

**Honors**

**10 Credits (full year)**

**Grade 10**

Following a very strong freshman year in honors physics, students taking honors chemistry will explore many varied topics in the central science at an accelerated pace and depth. Very strong reading and math ability along with superior critical thinking and abstract reasoning skills are expected of students taking this course. Students must have strong study skills and dedicate 45

min to an hour each night to be successful in Honors Chemistry. Multiple weekly assessments are given. Synthesis of concepts developed in experiments are an integral part of the higher level thinking, problem solving and writing assignments expected in this course.

Topics include: Atomic structure and Nuclear Chemistry, Quantum theory and Periodicity, Chemical bonding, molecular geometry, Stoichiometry, States of Matter and Intermolecular forces, Gas Laws and behavior, Solution and Thermochemistry, Equilibrium, Acids and Bases, RedOx and Electrochemistry, Hydrocarbons and Organic reactions and Functional groups and Macromolecules.

*Prerequisite:* Physics and departmental approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.

## **Biology**

### **CP Biological Sciences (3204)**

**College Preparatory**

**10 Credits (full year)**

**Grade 11**

This course provides an introduction to the major fields in biological sciences within the context of ecology. Students will investigate common characteristics among the millions of organisms on this planet, as well as some of the unique features organisms possess for survival. Students selected for this level will continue skill development in reading, writing and critical thinking as we delve into the major themes of biology. That will include topics such as: the scientific method, the structure and function of cells, cellular processes, taxonomy, evolution, genetics, ecology, and human biology. Application of biological concepts, laboratory procedures, understanding of current issues in biology, organization of notes and lab reports are an integral part of the course.

*Prerequisite:* Chemistry and teacher recommendation.

### **CP Biology (3202)**

**College Preparatory**

**10 Credits (full year)**

**Grade 11**

This course provides an introduction to the major fields of biology within the context of ecology. Students will investigate common characteristics among the millions of organisms on this planet, as well as some of the unique features organisms possess for survival. A solid understanding of basic chemistry is assumed from the successful completion of a year of chemistry. The major themes of biology will include scientific method, the structure and function of cells, cellular processes, taxonomy, evolution, genetics, ecology, and human biology. Application of biological concepts, laboratory procedures, understanding of current issues in biology, and organization of notes and lab reports are integral parts of this course. Strong study and organizational skills, reading, writing and homework completion are essential for success in this class.

*Prerequisite:* Chemistry.

**Honors Biology (3201)****Honors****10 Credits (full year)****Grade 11**

This course provides an introduction to the major fields of biology with an emphasis on molecular and cellular biology. Students will investigate common characteristics among the millions of organisms on this planet, as well as some of the unique features organisms possess for survival. A solid understanding of chemistry, organic molecules and some biochemistry is assumed from the successful completion of a year of chemistry. The major themes of biology will include scientific method, the structure and function of cells, intra- and intercellular processes, taxonomy, evolution, genetics, ecology, and human biology. Students electing this level of biology should be highly motivated and organized. Note taking skills, consistent laboratory procedures, the ability to learn from text and journal readings, and careful attention to all assignments are essential for success in this class.

*Prerequisite: Chemistry and departmental approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.*

**AP Biology (3200)****Advanced Placement****10 Credits (full year)****Grade 11 Only**

The AP Biology course is a college level freshman biology course. Students should have a strong foundation from honors chemistry and statistics. Students should be highly motivated, have strong independent study skills, and the ability to apply information they have just learned. Reading requirements for the course are rigorous and require at least 1 hour each day in order to stay on target in the class. Exams generally cover 3-4 chapters in the text, are at a synthesis level and require deep understanding of the topics. Laboratory activities suggested by the College Board are conducted to give the student a fair representation of a university level biology course. Summer reading will be required. All students are required to take the AP Biology exam in May. Please note that this junior year class is taught in two periods for the first semester and one period for the second semester and that enrollment is capped at 24.

*Prerequisite: Honors Chemistry and departmental approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.*

**Earth and Environmental Sciences****CP Earth and Space Science (3672)****Honors Earth & Space Science (3671)****Level Varies****10 credits (full year)****Grade 12**

This is a college level course that emphasizes broad, up to date coverage of basic topics in geology, astronomy, oceanography, and meteorology. The course is challenging and meaningful for students with little or no background in earth science but will integrate topics from physics, chemistry and biology. Lab exercises combined with detailed reading assignments from both the text and primary sources will help the student learn and appreciate basic principles and concepts that affect humans. Activities outside the classroom will be used to bridge principles taught in the classroom with naturally occurring cycles. Honors students are expected to have good note taking skills, the ability to learn from text and journal readings and strong writing skills. They will also be able to learn from should expect to synthesize information from different across scientific disciplines and engage in problem solving.

*Prerequisite for Honors: Biology and departmental approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.*

**AP Environmental Science (3670)**

**Advanced Placement**

**10 credits (full year)**

**Grade 12**

This course will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, both natural and man-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Both individual and group work are significant parts of the class. Discussions around current environmental issues, politics and economics are integral to the understanding and the analysis of environmental science. Major themes include Earth systems and resources, the living world, populations, land and water use, energy resources and consumption, pollution and global change. All students will be required to take the AP Environmental exam in May. Please note that this class is taught in two periods for the first semester.

*Prerequisite: Biology and departmental approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.*

**Electives**

**Honors Environmental Science and Economics (3675)**

**Honors**

**15 Credits**

**Grade 12**

This course is designed as a capstone course for the understanding of science in society. This course will be team taught by the science and social studies departments. Concepts from science and economics will be interwoven and enhanced by studying environmental issues from two different perspectives. Real-world problems and examples will be the basis of the course. Students will research and analyze data to perform a short- and long-term cost-benefit analysis of environmental problems. Mathematical models, simulations, and experiments in both economic and environmental systems will be utilized to explore controversial issues. During the



second semester the focus of the class will turn to a seminal project where students will conduct research, analyze data, evaluate policies, and present their findings to address an environmental problem. Credit will be given for both environmental science (10 science credits) and economics (5 social studies credits).

*Prerequisite: Biology and departmental approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students.*

**AP Physics 2 (3503)**

**Advanced Placement**

**10 Credits (full year)**

**Grades 11-12**

AP Physics 2 is an algebra-based, introductory college-level physics course that explores such topics as fluid mechanics and dynamics; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. All students will be required to take the AP Physics 2 exam in May.

*Prerequisite: Honors or AP Biology and concurrent enrollment in either Precalculus or Calculus. Departmental approval along with at least an 85 average for current Honors students and at least a 93 average for current CP students or department approval.*

**Vex Robotics (3652)**

**Unleveled**

**2.5 Credits**

**Grades 9-12**

This course is designed as a self-contained introduction to robotics principles, or as a prerequisite for participation on the CEHS VEX Robotics Team 56. In this course, each student is assigned his or her own robotics kit and computer. Through a series of design challenges, students learn best practices for building a chassis frame and pivot arm and gain experience in coding, including use of control structures and functions to integrate feedback from numerous sensors, such as touch sensors, rotation sensors, and the joystick. Students enrolled in this course will meet the equivalent of one academic quarter. Depending on the number of students enrolled, students may be assigned to a particular semester to work on and complete assigned tasks. Enrollment will be limited to three students per semester.

## **Social Studies**

*A graduate will be able to:*

1. **Social Studies Skills**: Analyze primary and secondary sources and use them to support arguments.
2. **Applied Social Studies**: Research and recommend policies to address global and domestic issues.
3. **Civics and Government**: Understand the purpose, structure, and functions of government as well as the responsibilities and rights of citizens.
4. **Economics**: Evaluate differing economic systems and policies.
5. **Geography**: Analyze the impact of geography on the world's civilizations.
6. **History**: Understand enduring themes and historic influences in order to evaluate their impact on the world.

### **Honors and AP Placement**

All Honors and AP placements require department approval.

- **Honors World History I**

Placement will be based on January NWEA scores, reading level, and teacher recommendation that will take into account critical thinking skills, ability to work independently, work completion, and work ethic, class participation, strong writing skills, and passion for the social studies.

- **Honors World History II, U.S. History, and Government**

- **Students who wish to take Honors**: Students who have a 93 or better in CP may be recommended to move to Honors. In addition to possessing strong reading, writing, conceptual thinking, and research skills, students should also have a passion for the social studies, the ability to quickly move through new material, and a history of work completion.
- **Students who wish to maintain current placement in Honors**: Students with an 85 or better in Honors may maintain this placement.
- **Students who may be recommended to take CP**: Students with an 84 or below in Honors may be recommended to take CP.

- **AP U.S. History and AP U.S. Government and Politics**

- **Students who wish to take AP**: Students should have a deep passion for the social studies, exceptional skills in reading, research, and critical thinking, and a 93 or better in Honors. Students are also expected to demonstrate command of

the assigned summer work; failure to do so results in revocation of the placement.

- **Students who wish to maintain current placement in AP:** Students who have an 85 or better in AP U.S. History may enroll in AP U.S. Government and Politics.

**CP World History I (4102)**

**College Preparatory**

**5 Credits (one semester)**

**Grade 9**

This required course introduces students to basic concepts including geography, vocabulary, and the skills of cultural and historical inquiry. The content focus of this course includes the Golden Ages of China, Islam & 800-1500 Europe, as well as a review of world religions and belief systems. Reading and analysis of original sources, expository writing, note-taking, and organization are emphasized.

**Honors World History I (4101)**

**Honors**

**5 Credits (one semester)**

**Grade 9**

This required course introduces students to basic concepts including geography, vocabulary, and the skills of cultural and historical inquiry. The content focus of this course includes the Golden Ages of China, Islam & 800-1500 Europe, as well as a review of world religions and belief systems. Reading skills are honed through engagement with extensive original sources as well as difficult text material. Expository writing, note-taking, and organizational skills are emphasized at an advanced level. This course is for students with excellent skills in reading, writing, class participation, and organization.

Prerequisite: *Teacher recommendation or department approval.*

**CP World History II (4202)**

**College Preparatory**

**10 Credits (full year)**

**Grade 10**

This required course is a continuation of World History I. Students analyze the makings of the modern world while continuing to build skills in research-based writing and argument design. Beginning with the European Enlightenment, students compare revolutions in the American English colonies and France. Focus then shifts to the Industrial Revolution and development of modern economic systems and communist political movements. Through economic, political, and social lenses, students assess the reasons for and impacts of imperialism in different parts of the world. World Wars I and II provide the stage for an examination of contemporary 20th century issues including economic interdependence, Cold War conflicts, and the development of organizations for multilateral decision-making. Students will build reading, writing, and research skills as they pursue an understanding of major world issues and conflicts throughout the year. Finally, students will elucidate a contemporary world issue in a formal presentation to the public.

Prerequisite: *World History I.*

**Honors World History II (4201)****Honors****10 Credits (full year)****Grade 10**

This required course is a continuation of World History I. Students analyze the makings of the modern world while continuing to build skills in research-based writing and argument design. Beginning with the European Enlightenment, students compare revolutions in the American English colonies and France. Focus then shifts to the Industrial Revolution and development of modern economic systems and communist political movements. Through economic, political, and social lenses, students assess the reasons for and impacts of imperialism in different parts of the world. World Wars I and II provide the stage for an examination of contemporary 20th century issues including economic interdependence, Cold War conflicts, and the development of organizations for multilateral decision-making. Students will build reading, writing, and research skills as they pursue an understanding of major world issues and conflicts throughout the year. Finally, students will elucidate a contemporary world issue in a formal presentation to the public. This course is for students with excellent skills in reading, writing, class participation, and organization.

Prerequisite: *World History I and department approval.*

**CP U.S. History (4302)****College Preparatory****10 Credits (full year)****Grade 11**

This required course examines the history of the United States from the Declaration of Independence to the present day, with the greatest emphasis being placed on the 20th century. Emphasis is placed on the political, economic, and social parts of history, with a focus on causal relationships and results of events throughout our history. Reading and independent research are important parts of this course.

Prerequisite: *World History II.*

**Honors U.S. History (4301)****Honors****10 Credits (full year)****Grade 11**

This required course examines the history of the United States from the Declaration of Independence to the present day, with the greatest emphasis being placed on the 20th century. By focusing on the social, economic and political threads in our history, we attempt to answer the question: "How and why did we get where we are today?" This course is for students with excellent reading and writing skills, high motivation, and a strong work ethic.

Prerequisite: *World History II and department approval.*

**AP U.S. History (4300)**  
**Advanced Placement**

**10 Credits (full year)**

**Grade 11**

AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course, and it is required that students take the AP U.S. History exam in May. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students will develop and use the same skills, practices, and methods employed by historians: Analyzing Historical Evidence and Argument Development. This course is for students with exceptional reading and writing skills, high motivation, and a strong work ethic. Dynamic and active class preparation and participation are essential.

Prerequisite: *Honors World History II and department approval.*

**CP Government (4402)**  
**College Preparatory**

**5 Credits (one semester)**

**Grade 12**

This required course deals with the workings of the United States government and the role of American citizens. The course focuses not only on the mechanics of the government, but on differences in political party platforms. The course also examines America's role in the world today.

**Honors Government (4401)**  
**Honors**

**5 Credits (one semester)**

**Grade 12**

This required course deals with the workings of the United States government and the role of American citizens. The course focuses not only on the mechanics of the government, but also on the application of these concepts to contemporary public policy issues. This course is for students with excellent reading and writing skills, high motivation, and a strong interest in politics and government.

Prerequisite: *Honors U.S. History or AP U.S. History.*

**AP U.S. Government and Politics (4400)**

***Advanced Placement***

***10 Credits (full year)***

***Grade 12***

AP U.S. Government and Politics is a rigorous full-year introduction to the American political system. Although the basic "nuts and bolts" of government processes are covered, the course seeks to improve students' skills in analysis, evaluation, and persuasion (both written and oral). To achieve this objective, the course is both reading and writing intensive. Students are required to give frequent formal and informal oral presentations of various sorts. Students are required to take the AP U.S. Government and Politics exam in May. Sign up for this course because you are deeply passionate about government. This course is for students with exceptional reading and writing skills, high motivation, and a strong work ethic.

*Prerequisite: Honors U.S. History and department approval.*

**Electives**

**Art History (4641)**

***Honors or CP credit***

***5 Credits (one semester)***

***Grades 9-12***

This course is designed to introduce students to the critical landmarks and turning points of artistic and architectural culture. This course will cover a broad range of artists, sculptors, and architects and their works from the Paleolithic Era to the 21st century. Students will examine and analyze the foundations, evolutions, diffusions, and consequences of artistic periods and how they influenced and were influenced by society, politics, economics, and religion. Emphasis will be placed on the human form in art, the expression of the natural world, abstract design, perspective and symmetry, art as escape, and art as protest.

**Facing History and Holocaust Studies (4602)**

***Unleveled***

***5 Credits (one semester)***

***Grades 9-12***

By examining the attempted Nazi genocide of Jews during World War II, students will confront the danger of indifference in society. Although the Holocaust is the focus of this course, students will also examine the moral and ethical questions raised by other 20th and 21st century events. The course begins with a study of how each of us is shaped by society. Activities will include outside reading, creative projects, and film-based discussions.

**Maine Maritime History (4612)**

***Honors or CP credit***

***5 Credits (one semester)***

***Grades 9-12***

This course will explore Maine's rich maritime history from Colonial times to the early 20th century. The course will conclude with a discussion of public policy on maritime issues such as the economic impacts of commercial fishing and waterfront usage. It will include field trips to historical sites and museums.

**Contemporary World Issues (4624)****Honors or CP credit****5 Credits (one semester)****Grades 10-12**

Students will explore controversial conflicts that affect the world today. Topics may include human rights issues such as torture and discrimination, terrorism and neo-Nazi movements, immigration, climate change, famine, and how the rise of artificial intelligence and biotechnology may affect the human race. Watching documentaries, participating in simulations and discussions, and engaging with guest speakers will help focus learning.

**Economics and Investing****Honors or CP credit****5 Credits (one semester)****Grade 12**

This course will focus on how free markets function with an emphasis on investing in the stock and bond markets. The course will examine controversial topics such as tariffs and international trade, foreign currency markets, the national debt, supply-side versus demand-side economics, monetary policy, regulation of business, and how economics can be used to address Climate Change. The application of psychology to economic decisions will also be stressed. This course will improve your analytical skills that colleges and businesses value and will teach you how to use spreadsheets and financial calculators to evaluate financial decisions.

**AP Macroeconomics (4633)****Advanced Placement****5 Credits (one semester)****Grades 11-12**

This course is designed to offer students an introductory, but rigorous and fast-paced exposure to macroeconomics. The course provides students with a college-level experience in macroeconomics. Topics will include free markets, investing in the stock market, national economic well being; economic recessions and booms; using taxes and government spending to influence the US economy, the national debt; the role of the Federal Reserve in the economy; and international trade and foreign currency markets. This course will stress the application of analytical skills. Basic mathematical and graphing skills will be reviewed at the beginning of the course, but it is expected that students entering the course already have a strong background in these areas. A strong background in U.S. history is necessary to enhance students' understanding of economic policy.

Prerequisite: Department approval.

**AP Microeconomics (4634)****Advanced Placement****5 Credits (one semester)****Grades 11-12**

This course is designed to offer students an introductory, but rigorous and fast-paced exposure to microeconomics. The course provides students with a college-level experience in microeconomics. Topics covered include free markets and government intervention, investing in the stock market, business strategy, labor markets, the minimum wage, and income inequality.

This course will stress the application of analytical skills. Basic mathematical and graphing skills will be reviewed at the beginning of the course, but it is expected that students entering the course already have a strong background in these areas. A strong knowledge of U.S. history will further enhance students' understanding of economic applications.

Prerequisite: Department approval.

**Sociology (4654)**

**Honors or CP credit**

**5 Credits (one semester)**

**Grades 10-12**

This semester-long course introduces students to the study of human interaction. It gives students a basic understanding of human group relations in today's society. The course includes units on basic groups: the family, religion, education, gender, class, and related sociological phenomena. We explore fundamental questions such as: How does the way that women are portrayed in the media affect the way women are seen in society? Why does a person's parents' beliefs affect what religion they follow or don't? Does social class have an impact on who we fall in love with? How does a group within society pass along its racism, homophobia, misogyny, etc.? What really is a legend, a myth, a cult, or a religion? How does society decide what it means to be cool or insane or a loser or a hero? The course examines American society as well as an understanding of similar institutions common to other cultures, and explores symbolic interactionism.

**Philosophy and Thought (4653)**

**Honors or CP credit**

**5 Credits (one semester)**

**Grades 10-12**

This course is designed as a course in abstract thought, both in history and in practice. It will introduce students to many of the celebrated thinkers since antiquity through readings, discussions, and thought experiments. This is a course of deep analysis and the exploration of fundamental questions such as: Who are we? What does it mean to exist? How do we know we actually know something? What is consciousness? What is beauty or art and who gets to decide? What is right and wrong and who gets to decide? How do we know something is of "high quality?" Students will read primary source material written by philosophers such as Plato, Descartes, Nietzsche, Wittgenstein, and Foucault. In addition, students will discuss and write analytic papers on topics such as time travel, the nature of beauty/art, free will and determinism, and the mind-body problem. Finally, students will apply newly acquired knowledge to discussions and writing on issues of global importance such as poverty, war, and international human rights.



## World Languages

*A graduate will be able to:*

1. **Interpersonal Communication:** Engage in conversations and written correspondence on a variety of topics.
2. **Interpretive Communication:** Understand and interpret written and spoken language on a variety of topics.
3. **Presentational Communication:** Present information, concepts, and ideas, orally and in writing, to an audience of listeners or readers on a variety of topics.
4. **Comparison of Products, Practices, and Perspectives:** Compare the nature of language and the culture(s) of the target language with one's own.
5. **Communities:** Encounter and use the target language both in and beyond the classroom for personal enjoyment and lifelong learning.
6. **Vocabulary:** Use an understanding of the lexus (vocabulary) to enhance communication in the target language.
7. **Grammar:** Use an understanding of the linguistic system (grammar) to enhance communication in the target language.

### **French**

#### **French I: Beginning (5102)**

***Unleveled***

***10 Credits (full year)***

***Grades 9-12***

French I is an introductory course to the French language and the culture of French speaking countries. Developing speaking skills and aural comprehension is the focus for the first year course. Students will be able to understand and speak about themselves, their families, their school interests, and their daily life. They will be able to ask and answer questions in French.

#### **French I: Advanced (5112)**

***Unleveled***

***10 Credits (full year)***

***Grades 9-12***

The purpose of French I Advanced is to reinforce the skills and knowledge of French I or the Middle School French program. The topics studied will center around everyday activities and situations. Reading and listening selections will reinforce the cultural aspect of the course. By the end of the course, the students should be able to ask and answer questions, give a short narrative of his/her activities written or spoken, and read or listen to passages and understand the main ideas.

***Prerequisite:*** French I or placement test.

**French II: Intermediate (5122)**

**Unleveled**

**10 Credits (full year)**

**Grades 9-12**

This course is designed for students who have completed a 7th and 8th grade French program or French I, and have a firm background in the fundamentals of beginning French. The course seeks to build on listening and speaking skills, along with developing reading and writing proficiency. By the end of this course, students will be expected to use French 95% of the time in class and perform the following activities within the context of the topics studied: describe events in the past, present and future; ask and answer questions; talk and write about everyday situations; and participate in unrehearsed role-plays based on familiar situations.

Prerequisite: *French I, French I Advanced, or placement test.*

**French III: Introduction to Reading and Composition (5132)**

**Unleveled**

**10 Credits (full year)**

**Grades 9-12**

French III is an intermediate course that builds on beginning language skills, preparing students for advanced language study. While students will continue to increase their working vocabulary through thematic topics, they will also learn strategies to approach texts written in the language. Additionally, students will begin to express themselves more formally in writing and orally. The overall goal of this course is to strengthen listening, reading, writing, and speaking skills in preparation for further language study.

Prerequisite: *French II or placement test.*

**French IV: Pre-AP Advanced Conversation, Reading, and Composition (5141)**

**Honors**

**10 Credits (full year)**

**Grades 10-12**

The purpose of this course is to strengthen the listening, speaking, reading, and writing skills of the students. The content of the course will focus on an intensive, systematic review of French grammar while building on the student's vocabulary. Additionally, the student will refine his/her writing skills, developing short, personal essays. The student will also develop his/her reading skills so as to be able to grasp the main ideas and supporting details of authentic French texts from the print media and literary works. This course is conducted entirely in French.

Prerequisite: *French III or placement test.*

**French V (5161)**

**Honors**

**10 Credits (full year)**

**Grades 11-12**

This course is designed for students to further strengthen their language skills and develop their cultural competency. The curriculum will focus on real communication in meaningful contexts that develop and consolidate students' speaking, listening, reading, and writing skills at the

intermediate level. Topics will include the impact of French culture in the United States, cultural characteristics of major French speaking cities, and natural resources and wealth in the Francophone world.

*Prerequisite: Academic grade of 89 or above in French IV or placement test.*

**French V: Contemporary French Language and Culture (5160)**

**Advanced Placement**

**10 Credits (full year)**

**Grades 11-12**

This advanced course is designed for those students who want to further enhance their language proficiency. Using France and other French speaking countries as a background, students will work on their ability to read, write, comprehend, and speak French through a variety of themes. These themes will include global challenges, science and technology, contemporary life, personal and public identities, families and communities, and beauty and aesthetics. The students will work with a variety of authentic audio and written texts to participate in interpersonal, interpretive, and presentational communication in line with the AP French Language and Culture exam. Please note, however, that students are not required to take this exam to enroll in this course.

*Prerequisite: Academic grade of 89 or above in French IV or placement test.*

**French VI: French Language and Culture (5170)**

**Advanced Placement**

**10 Credits (full year)**

**Grade 12**

Through this course, the student will work on his/her ability to read, write, understand, and speak French through a variety of themes. These themes will include global challenges, science and technology, contemporary life, personal and public identities, families and communities, and beauty and aesthetics. The student will work with a variety of authentic audio and written texts to participate in interpersonal, interpretive, and presentational communication in line with the AP exam for French Language and Culture. Please note, however, that students are not required to take this exam to enroll in this course.

*Prerequisite: Academic grade of 89 or above in French V or placement test.*

**Latin**

**Latin I (5202)**

**Unleveled**

**10 Credits (full year)**

**Grades 9-12**

This beginning course in Latin introduces basic grammar, syntax, vocabulary, pronunciation, and English word derivation. Translation selections cover Roman history, mythology, and everyday life in ancient times.

**Latin II (5222)****Unleveled****10 Credits (full year)****Grades 10-12**

This course continues the study of grammar (including the subjunctive), syntax, vocabulary, Roman culture, Roman history, mythology, and ancient authors. Works of Julius Caesar, Horace, Virgil, Seneca, Cicero, and Terence will be studied.

Prerequisite: Latin I.

**Latin III/IV/V - Independent Study****Unleveled****10 Credits (full year)****Grades 11-12**

Students interested in pursuing Latin beyond Level II may request to take Latin III, IV, or V as an Independent Study. This course would be in addition to the other six courses on a student's schedule. Grading would be on a pass/fail basis, and students would need to sign an attendance contract committing to attendance during required meeting times, which would be in the morning before school. Please note that this opportunity is not guaranteed, and it depends on scheduling and other issues.

Prerequisite: Latin II.

**Spanish****Spanish I: Beginning Spanish (5302)****Unleveled****10 Credits (full year)****Grades 9-12**

Spanish I is an introductory course to the Spanish language and the culture of Spanish speaking countries. Developing speaking skills and aural comprehension is the focus of the first year course. Students will be able to understand and speak about themselves, their families, their school interests, and their daily life. They will be able to ask and answer questions in Spanish.

**Spanish I Advanced (5312)****Unleveled****10 Credits (full year)****Grades 9-12**

The purpose of Spanish I Advanced is to reinforce the skills and knowledge of Spanish I or the Middle School Spanish program. The topics studied will center around everyday activities and situations. Reading and listening selections will reinforce the cultural aspect of the course. By the end of the course, the students should be able to ask and answer questions, give a short narrative of his/her activities written or spoken, and read or listen to passages and understand the main ideas.

Prerequisite: Spanish I or placement test.

**Spanish II: Intermediate Spanish (5322)**

**Unleveled**

**10 Credits (full year)**

**Grades 9-12**

This course is designed for students who have completed a 7th and 8th grade Spanish program or Spanish I, and have a firm background in the fundamentals of beginning Spanish. The course seeks to build on listening and speaking skills, along with developing reading and writing proficiency. By the end of this course, students will be expected to use Spanish 95% of the time in class and perform the following activities within the context of the topics studied: describe events in the past, present and future; ask and answer questions; talk and write about everyday situations; and participate in unrehearsed role-plays based on familiar situations.

Prerequisite: *Spanish I, Spanish I Advanced, or placement test.*

**Spanish III: Introduction to Reading and Composition (5332)**

**Unleveled**

**10 Credits (full year)**

**Grades 9-12**

Spanish III is an intermediate course that builds on beginning language skills, preparing students for advanced language study. While students will continue to increase their working vocabulary through thematic topics, they will also learn strategies to approach texts written in the language. Additionally, students will begin to express themselves more formally in writing and orally. The overall goal of this course is to strengthen listening, reading, writing, and speaking skills in preparation for further language study.

Prerequisite: *Spanish II or placement test.*

**Spanish IV: Conversation (5351)**

**Honors**

**10 Credits (full year)**

**Grades 10-12**

Spanish IV Conversation is an Honors-level language course that allows students to strengthen functional language skills at a higher level. Topics include the Hispanic presence in the United States, housing, helping out in our community, the environment, and plans for after graduation. Though developing speaking skills is the focus of this course, students will also be strengthening the other language skills: listening, reading, and writing.

Prerequisite: *Spanish III or placement test.*

**Spanish IV: Pre-AP (5341)**

**Honors**

**10 Credits (full year)**

**Grades 10-12**

Spanish IV Pre-AP is an Honors-level language course that introduces students to the AP language standards. The course is designed around thematic units that incorporate AP-style reading, writing, speaking, and listening activities. Vocabulary study includes terminology needed to discuss the topics of school and technology, art, family, immigrant workers, housing, and environmental studies. This course incorporates a wide variety of informational and fiction texts and response writing.

Prerequisite: Academic grade of 89 or above in Spanish III or placement test.

**Spanish V: Daily Life in Hispanic Culture (5361)**

**Honors**

**10 Credits (full year)**

**Grades 11-12**

This course emphasizes a conversational approach to the Spanish language and Hispanic culture. Students will build their practical communicative skills, situational vocabulary, and cultural knowledge of daily life in Spain and Latin America. Current events in the Hispanic world will also be considered throughout the duration of the course.

Prerequisite: Spanish IV or placement test.

**Spanish V: Latin American Topics (5360)**

**Advanced Placement**

**10 Credits (full year)**

**Grades 11-12**

This advanced course is designed for those students who want to further their language proficiency. Using Latin America as a background, students will work on their ability to read, write, comprehend, and speak Spanish through a variety of themes. These themes will include global challenges, science and technology, contemporary life, personal and public identities, families and communities, and beauty and aesthetics. The students will work with a variety of authentic audio and written texts to participate in interpersonal, interpretive, and presentational communication in line with the AP Spanish Language and Culture exam. Please note, however, that students are not required to take this exam to enroll in this course.

Prerequisite: 89 or above in Spanish IV Pre-AP or placement test.

**Spanish VI: Contemporary Spanish Language and Culture (5370)**

***Advanced Placement***

***10 Credits (full year)***

***Grade 12***

This course is designed to further develop students' abilities in reading, writing, listening comprehension, and speaking through a variety of themes. These themes will include global challenges, science and technology, contemporary life, personal and public identities, families and communities, and beauty and aesthetics. Students will be reading the Spanish play *Las bicicletas son para el verano* by Fernando Fernán Gómez as a springboard to those themes. Classwork will include a variety of authentic audio and written texts to develop and refine students' interpersonal, interpretive, and presentational communication skills in line with the AP Spanish Language and Culture exam. Please note, however, that students are not required to take this exam to enroll in this course.

*Prerequisite:* 89 or above in Spanish V Latin American Topics or placement test.

***Please note that this course is not being offered in the 2019-2020 school year.***

### AVAILABLE COURSES 2019-2020

ENGLISH		SCIENCE	
301101	H Freshman English	303101	H Physics
301102	CP Freshman English	303102	CP Physics
301201	H Sophomore English	303109	CP Physical Science
301202	CP Sophomore English	303200	AP Biology
301300	AP Junior English	303201	H Biology
301301	H Junior English	303202	CP Biology
301302	CP Junior English	303204	CP Biological Sciences
301400	AP Senior English	303301	H Chemistry
301423	CP Senior English Film/Media	303302	CP Chemistry
301425	H Senior English Film/Media	303306	CP Chemical Science
301503	CP Senior English Composition	303503	AP Physics 2
301504	CP Senior English Literature	303652	Vex Robotics
301505	H Senior English Literature	303670	AP Environmental Science
<b>MATH</b>		303671	H Marine Earth Space Science
302019	CP Pre-Algebra	303672	CP Marine Earth Space Science
302125	CP Algebra I	303675	H Environmental Science & Economics
302131	H Geometry		
302135	CP Geometry, Statistics & Trigonometry	<b>ALTERNATIVE PATHWAYS</b>	
302145	H Algebra II	7751	Portland Arts & Technology
302146	CP Algebra II	9902	Independent Study
302160	AP Statistics	9906	College Study
302161	H Functions, Statistics & Trigonometry	9910	Online or Distance Education
302166	DE Quantitative Reasoning	9921	Work Study
302170	AP Calculus AB	9979	Student Driven Learning
302171	H PreCalculus		Freshman & Junior Academy
302172	CP PreCalculus		Foreign Exchange Trips
302180	AP Calculus BC		Peer Tutoring
			Attend Other Credit Awarding Schools



SOCIAL STUDIES		WORLD LANGUAGES	
304101	H World History I	305102	French I
304102	CP World History I	305112	French I Advanced
304201	H World History II	305122	French II
304202	CP World History II	305132	French III
304300	AP US History	305141	H French IV
304301	H US History	305160	AP French V
304302	CP US History	305161	H French V
304400	AP Government	305170	AP French VI
304401	H Government	305202	Latin I
304402	CP Government	305302	Spanish I
304602	Holocaust Studies	305312	Spanish I Advanced
304612	Maine Maritime History	305322	Spanish II
304624	Contemporary World Issues	305332	Spanish III
304630	AP Microeconomics	305341	H Spanish IV Literature
304633	AP Macroeconomics	305351	H Spanish IV Conversation
304635	Economics and Investing	305360	AP Spanish V
304641	Art History		
304653	Philosophy and Thought	<b>COMPUTER TECHNOLOGY</b>	
304654	Sociology	307118	AP Computer Science A
		307119	Intro Computer Prog
		307139	Word Processing
<b>HEALTH/PHYSICAL EDUCATION</b>		307159	Personal Finance
306109	PE I	307189	Image Mgmt
306119	Health	307199	Video Production
306209	PE II	307200	Advanced Video Production
306609	Health Forum	307209	Digital Design
306619	Psychology	307219	Website Design
306629	PE Adventure	307228	Yearbook Leadership

INDUSTRIAL TECHNOLOGY		VISUAL ARTS	
307009	Tech I	308001	Art Fundamentals
307019	Tech II	308002	Ceramics
307029	Tech III	308003	Advanced Ceramics
307059	Architectural Drafting	308005	Photography
307069	Architectural Design	308006	Advanced Photography
307079	Boat Building	308011	Sculpture
307089	Woods I	308012	Painting/Drawing
307099	Advanced Woods	308020	Advanced Art Studio
MUSIC		THEATRE	
308204	Concert Choir	308101	Technical Theatre
308205	Treble Choir	308102	Theatre Basics
308302	Symphonic Band	308104	Theatre Workshop
308303	Wind Symphony	308105	Technical Theatre II
308304	Jazz Improvisation	308106	Public Speaking/Presentation
308311	Music Theory I		
308321	Guitar		

## **PATHS PROGRAM DESCRIPTIONS**

### **Automotive Collision Technology**

The Inter-Industry Conference on Auto Collision Repair (I-CAR) curriculum is focused largely on hands-on learning. The curriculum equips students with role-relevant knowledge and extensive practical experience. Students are able to graduate with industry-recognized Platinum™Pro Level designation and the skills needed to enter the workforce as collision repair professionals.

### **Carpentry**

The Carpentry program has been designed to instruct students in all types of house construction and remodeling. Students are involved in foundation layout work, house framing, and exterior and interior finish carpentry work. Students work with a variety of building and finishing materials and become familiar with modern methods and styles of commercial and residential construction.

### **Commercial Art**

The goal and purpose of the Commercial Art program is to help students learn how to make and market their art to generate income. Building a strong portfolio and setting up art exhibits to show and sell work is ongoing. Students learn how to effectively create layout and design for posters, logos, illustrations, and tee shirts by hand and computer.

### **Culinary Concepts**

The Culinary Concepts program is designed as a two-year intensive that prepares the student for immediate entry into the exciting world of culinary professionals. Portland, Maine is one the richest cities in the country for dining out. World-class chefs and restaurants are plentiful and they are always looking for quality employees. This program gets students ready to apply for those jobs with confidence.

### **Dance**

The Dance program is a modern dance-based program for high school students interested in pursuing a professional experience in the performing arts. Students take daily technique classes in modern dance and ballet technique as well as hip-hop, choreography, dance composition, and improvisation. Students are exposed to a wide range of professional guest artists featuring many styles of dance through one day workshops and special projects.

### **Early Childhood Occupations**

This course is designed for students who are preparing for careers in teaching and caring for young children, birth through age eight. The course provides a foundation in child development, family systems, childcare management, and teaching at the early elementary level. Students plan and manage a campus child development lab program and intern in community-based programs and area elementary schools. The course has been designed with multiple entry and exit points so that students may enroll for one to four semesters, choosing work that matches their needs and future teaching plans.

### **Food Service**

This program prepares students for entry-level employment in the food service industry. This exciting program offers real life experiences and learning through the operation of a student run café. Students receive a varied hands-on education in food preparation, equipment usage, sanitation, personal hygiene, customer relations, teamwork, attitude, initiative, and independence.

### **Health Science Occupations**

This program provides students with the opportunity to explore three different tracks: nursing, dental, or veterinary. The first year introduces the students to careers in health sciences. Students study anatomy, physiology, nutrition, and diet therapy, and complete a medical research project through field trips, demonstrations, and classroom instruction. The second year prepares the student in basic health science skills, body mechanics, aseptic techniques, and medical terminology.

### **Landscapes and Gardens**

This exciting program provides students the opportunity to work in PATHS' largest classroom – 40 acres. Students get to experience retail and wholesale marketing techniques through the management of a 3,000 sq. ft. greenhouse. Students work in our display beds, gardens, and the extensive grounds of our campus. Students learn about practical greenhouse, landscape, and garden techniques in a supported environment.

### **Manufacturing Technology**

Manufacturing Technology prepares juniors and seniors for skilled jobs in growing fields where many jobs are currently unfilled because of the lack of trained personnel. Students learn skills that enable them to visualize and sketch a product, create a virtual model using a 3D CAD (Computer Aided Design) program, produce a prototype on a 3D printer, and manufacture the precision finished product in a variety of materials, including aluminum and steel.

### **Marine Systems**

Marine Systems is a two-year program offering many opportunities for students to find their interests in one or more skill sets in the field. A willingness to learn, good attendance, and a positive attitude are necessary for success. The primary focus of this program serves as an entry level to many post-secondary education and employment opportunities for marine repair facilities, boat yards, boat builders ,and yacht services.

### **Masonry**

Fireplaces, barbecue pits, steps, planters, and columns for lighting applications are only a few of the projects students undertake in this exciting program. Design and layout of projects using brick, block, dry stone (wall construction), decorative pre-cast concrete, and repair of existing masonry structures are all part of the skills students acquire.

### **Music**

In this two-year program, students learn how to interpret and perform many contemporary musical styles from rock to R&B, pop to jazz and funk. There are three aspects of the program: performing, music theory, and recording studio. Students perform four times a year, with one evening rock show off campus.

### **New Media**

Our world is moving faster every day and media production for the Web or TV is a powerful force within it. From Adobe Photoshop and Flash to Panasonic and Sony, the New Media program introduces students to the basics that all new media producers need. Students are prepared for career or college with an individualized curriculum designed by our staff. Every student will master the basics of graphic design, project design and management, shooting and editing video, and Adobe PhotoShop.

### **Plumbing and Heating**

Plumbing and Heating is a two-year program providing instruction in all phases of repair, maintenance, and installation of plumbing and heating equipment. One year of the program is spent in the plumbing lab learning to work with all types of pipes, joints, traps, fixtures, tanks, and pumps. In the other year, students study three types of oil heating systems: warm air, steam, and hot water. Students are involved in the practice of installation, maintenance, and adjustment of equipment, as well as the wiring of electrical components of oil burners, including troubleshooting, testing, and adjusting.

### **Welding Technology/Blacksmithing Basics**

During this course, many performance tests are administered with a focus on welding with 6010 – 6011 – 6013 – 7018 – 7024 electrodes in the Shielded Metal Arc (SMAW) welding process culminating in the D1.1 structural steel limited plate test. Metal Inert Gas Welding (MIG) and Flux Cored Arc Welding (FCAW) are taught with certification offered in both first and second year curriculums. Pipe fitting and pipe welding on Schedule 40 6" pipe in the 2G – 5G – 6G positions are practiced in the second year.

### **Woodworking**

Woodworking is a supported program where students learn about tool safety, tools, joinery, turning, fasteners, abrasives, finishes, and computerized CNC routing. Students make individual, group, and class projects from a variety of woods. Students are exposed to community service, artistic techniques, manufacturing, and custom craftsmanship through field trips and shop projects. Students can move onto one, two, or four-year post-secondary opportunities along with many career options.

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