

ConVal Regional High School and Region 14 Applied Technology Center



Program of Studies 2023-2024

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Nondiscrimination Notice

ConVal Regional High School and the Region 14 Applied Technology Center (ATC) do not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities.

The purpose of the educational program at ConVal Regional High School is to provide students with a college and career readiness curriculum that encompasses knowledge, skills, and competencies for success. The Career and Technical Education (CTE) programs at the Region 14 ATC provide students with a wide range of skills demanded in the labor market while preparing them for post-secondary degrees in technical fields. Programs include offerings in Automotive Technology, Business, Careers in Education, Computers & Information Technology, Construction Trades, Digital Photo & Video, Engineering, Firefighting & EMT, Graphic Design, and Manufacturing. Admission to CTE programs is open to all students in grades 10-12 but requires an application and, in specific cases, may be subject to prerequisites such as current health insurance coverage, a drivers license, and/or a medical release. Running Start and dual credit options with the New Hampshire Community College system are available for an additional fee.

The following persons have been designated to handle inquiries regarding the non-discrimination policies:

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About ConVal High School

Contoocook Valley Regional High School is part of Contoocook Valley (ConVal) School District, SAU #1, and serves the nine towns of Antrim, Bennington, Dublin, Frankestown, Greenfield, Hancock, Peterborough, Sharon, and Temple.



School Profile

Hours: 7:35—2:20

Enrollment: 685

Building Personnel: 106

Motto: “Here Comes ConVal!”

Mascot: Cougar

Colors: Blue and Gold

Address: 184 Hancock Road, Peterborough, NH 03458

Website: cvhs.convalsd.net

Our Mission

At ConVal High School, we embrace our opportunities to grow and learn, both individually and as an inclusive community. We strive to be respectful and show compassion for others. We work to be creative thinkers and problem solvers. We communicate and collaborate in an effort to take responsibility for our learning. As we build resilience in a safe school environment, we commit to developing skills and tools to become civic-minded citizens.

Beliefs and Core Values

- Fostering a safe environment through positive culture
- Relentless pursuit of learning, thinking, and growing
- Community demonstrates respect for self, peers, facility, and adults
- Students, parents, community, and staff working together

21st Century Learning Expectations

- Resilient Learner
- Effective Communicator
- Collaborative Team Member
- Informed Civic Contributor

Learning Environment

ConVal Regional High School is a comprehensive public high school and is accredited by the New England Association of Schools and Colleges. Classes are offered on a four-by-four block schedule with daily classes for eighty minutes, and one forty-three minute intervention block.

In addition to Advanced Placement, honors and college preparatory classes, students participate in extended learning opportunities, internships, career education classes, career and technical classes, and the arts. All students participate in an intervention block called TASC (Teachers in Academic

Support Centers), which provides daily, forty-three minute guided interventions and/or extensions. Over fifty percent of our student body participates in athletics and/or extracurricular activities.

ConVal High School Programs and Procedures

Graduation Requirements

Subject Areas	ConVal Diploma Credits	Adult Diploma Program Credits
English	4	4
Global Studies	1	1
US/NH Government	0.5	0.5
Economics	0.5	0.5
US History	1	1
Science (1 in Biological Science, 1 in Physical Science)	3	2
Mathematics	4	2
World Languages	0	0
Health	1	0
Physical Education	1	0
Arts Education	0.5	0
Digital Literacy/Information and Computer Technology (ICT)**	0.5	0.5
Elective Offerings	9	8.5
Total Credits	26 credits	20 credits

- Students must be enrolled in a math class every semester until the Algebra I completion requirement is met.
- Starting with the Class of 2024, students must pass the Citizenship Test with a 70% or higher in order to graduate.
- Starting with the Class of 2024, each student must receive a Free Application for Federal Student Aid (FAFSA) in order to graduate.
- Students shall engage in learning concerning competencies in the areas of English/Language Arts and Mathematics for every year they are in high school until graduation, regardless of if English/Language Arts or Mathematics graduation competencies have been achieved.

**The following elective classes meet the Information and Computer Technology requirement:

- Introduction to Technology
- Robotics

Any class in the following Computer & Information Technology CTE program also meets the requirement:

- Electronics & Microcontrollers, Router and Switching Networks, Software Programming and Game Design, and Software Programming Using C++ .

Alternatively, competency in one of the above classes can be demonstrated - see the ATC director for more details.

Grading Procedures

Grading Scale

ConVal High School uses the following grading scale:

A+ 97 - 100	B+ 87 - 89	C+ 77 - 79	D+ 67 - 69	
A 93 - 96	B 83 - 86	C 73 - 76	D 63 - 66	F below 60
A- 90 - 92	B- 80 - 82	C- 70 - 72	D- 60 - 62	

Weighted Grades

ConVal assigns a value of 1.5 to all 010 classes, 1.25 to all 012 classes and 1.00 to all 123 classes for purposes of weighting grades. Weighted GPA is used for the determination of class rank. Transcripts communicate unweighted GPA. Each class in the program of studies is labeled with the class level (010, 012, 123).

010 Courses (Honors, AP, and Dual Enrollment) Value: 1.50	A+ 6.50	B+ 5.00	C+ 3.50	D+ 2.00	
	A 6.00	B 4.50	C 3.00	D 1.50	F 0.00
	A- 5.50	B- 4.00	C- 2.50	D- 1.00	

012 Courses Value: 1.25	A+ 5.41	B+ 4.16	C+ 2.91	D+ 1.66	
	A 5.00	B 3.75	C 2.50	D 1.25	F 0.00
	A- 4.59	B- 3.34	C- 2.09	D- 0.84	

123 Courses Value: 1.00	A+ 4.33	B+ 3.33	C+ 2.33	D+ 1.33	
	A 4.00	B 3.00	C 2.00	D 1.00	F 0.00
	A- 3.67	B- 2.67	C- 1.67	D- 0.67	

New Hampshire Scholars

[New Hampshire Scholars](#) is part of the national State Scholars Initiative and administered by the New Hampshire College and University Council; it seeks to incentivize students to take a rigorous course of study in high school to ensure preparation for college and/or career. There are four pathways to earning the distinction (requirements outlined below), and students that earn the distinction will be recognized in their senior year, have the distinction recorded on their diploma and transcript, and receive a medallion to wear at graduation. Students may also be eligible for college application fee waivers and scholarship opportunities at New Hampshire colleges.

New Hampshire Scholars Options

Subject Areas	NH Scholars Standard	NH Scholars STEM	NH Scholars Arts	NH Scholars Career Pathway
GPA Requirement	N/A	3.2	3.2	N/A
English	4	4	4	4
Global Studies	1	1	1	1
Economics/Government	1	1	1	1
US History	1	1	1	1
Social Studies Elective (Western Heritage, AP World: Modern, World Religions, Psychology, Post World War II, or Social Studies Through Sports)	0.5	0.5	0.5	0.5
Science <i>Credits must come from lab-based classes.</i>	3	4	3	3
Mathematics <i>Requires completion of Algebra I, Algebra II, Geometry, and 1 other</i>	4	4	4	4
World Languages <i>2 of the same language</i>	2	2	2	0
Health	1	1	1	1
Physical Education	1	1	1	1
Arts Education (Visual Arts, Fine Arts, Performing Arts, Music, Graphic Design, Digital Photography and Video Arts)	0.5	0.5	2	0.5
Digital Literacy/Information and Computer Technology (ICT)	0.5	0.5	0.5	0.5
Elective Offerings	6.5	4.5	4	varies
STEM (Technology, Engineering, Computers, Advanced Manufacturing, Science, Math, CTE Program)	n/a	1	n/a	-
Career Experience				see below
Total Credits	26	26	26	26

Career Experience includes each of the following:

- Successful completion of one of the following: an approved NH CTE program, industry-aligned or career-driven extended learning opportunity, all sequence components in formal career pathway program of study, or CCSNH industry certificate sequence; and
- Successful engagement in a work-based learning experience; and
- Successful completion of one of the following: college credits, industry recognized credential, or postsecondary hours.

Students should see their school counselors for specific details.

Project Running Start/Dual Enrollment Classes

Dual enrollment classes are available at ConVal High School through an agreement with the Community College System of New Hampshire (CCSNH). Students may earn college credits for Project Running Start classes. Students sign up online at the beginning of each semester on DualEnroll.com; parent signature is required regardless of the age of the student.

Many of the Project Running Start/Dual Enrollment classes also support students to meet the requirements for the STEM and Arts pathways of the NH Scholars Program. The School Counseling Office will be able to provide additional information upon request.

ConVal High School offers dual enrollment classes in the following subject areas:

Postsecondary Credits Available at ConVal <i>Available at Region 14 Applied Technology Center (ATC)</i>				
ConVal High School/ ATC Class	College Class	Post-Secondary Affiliation	College Credits	Type of Credit
Engineering Design I	ADMT115 - Engineering Print Reading	MCC (Mechatronics Pathway)	3	Running Start
Engineering Design II	ADMT118 - Electrical Fundamentals for Manufacturing	MCC (Mechatronics Pathway)	4	Running Start
Engineering Design III	ADMT110 - Manufacturing Processes	MCC (Mechatronics Pathway)	4	Running Start
Engineering Design IV	ADMT112M - Intro to Engineering Design & Solid Modeling	MCC (Mechatronics Pathway)	4	Running Start
Human Growth & Development	ECE102N - Growth & Development of the Young Child	NCC	3	Running Start
Careers in Education I	ECE101N - Foundations of Early Childhood Education	NCC	3	Running Start
Careers in Education I	ECE103N - Safe, Healthy & Nutrition Programs for ECE	NCC	3	Running Start
Careers in Education II	EDU130N - Foundations of Education	NCC	3	Running Start
Router and Switching Networks (formerly Computer Networking II)	CSCN116N - Networking Basics	NCC	3	Running Start (tentatively)
Software Programming Using C++ (formerly Computer Programming & Software Development II)	CSCI175N - Programming using C++	NCC	3	Running Start (tentatively)

Software Programming & Game Design	CSCI1161N - Intro to Programming	NCC	3	Running Start
Digital Photo & Video I	ARTS111N - Photography & Digital Imaging I	NCC	3	Running Start
Digital Photo II	ARTS112N - Photography & Digital Imaging II	NCC	3	Running Start
Firefighting	FST115 - Principles of Emergency Service	MWCC	3	Articulation Agreement
Firefighting	FST159 - Fire Behavior & Combustion	MWCC	3	Articulation Agreement
Emergency Medical Technician	HHC 111 - Emergency Medical Tech I	MWCC	4	Articulation Agreement
Emergency Medical Technician	HHC 112 - Emergency Medical Tech II	MWCC	4	Articulation Agreement
College Composition	ENGL101N - College Composition	NCC	4	Running Start (tentatively)
AP Calculus	MATH210N - Calculus I MATH211N - Calculus II	NCC	8	Running Start (tentatively)
<p style="text-align: center;">MCC = Manchester Community College NCC = Nashua Community College MWCC = Mount Wachusett Community College</p> <p>**Running Start - Agreements with the NH Community College System. Students take college-level classes in high school that generate a college transcript. **Articulation - Qualifying high school classes fulfill requirements through individual agreements between high school and the specific college with which ConVal has the articulation agreement. No college transcript is generated because the credits are only valid at the partnered institution. CTE students are also eligible for 8 articulated credits at Keene State College if they complete any CTE program.</p>				

Student Placement Procedure

All ConVal students are encouraged to access the highest levels of academic challenge. Per [Policy JG](#), students will be placed in classes that best meet their academic needs and in which they can be expected to master established district instructional and learning objectives, after consultation between the building principal, the student's teacher(s), and the student's parent/guardian. To help ensure success, students should ask their current and previous teachers to recommend the classes that will best fit their individual learning paths.

Note that not all courses listed in the Program of Studies will be placed into the master schedule for a particular year. Which classes get scheduled depends upon a number of factors, including student interest.

Course Selection Process

- Students consult with teachers and school counselors to select classes for the next year.
- Students and/or parents who would like to appeal a particular class placement/recommendation must communicate this in writing with the student's school counselor. A meeting will be held with the parent, student, teacher, and counselor as appropriate. If a decision is made to take a class that a student is not recommended for, the student and parent will be asked to acknowledge that they understand that the decision is not advised.

Scheduling Changes and Add Deadlines

- Student/parent requests for specific teachers cannot be considered unless a student previously failed the same class with the same teacher.
- Students typically cannot add or drop classes after 5 school days from the start of the class. If a student needs to drop a class after the 5-day add/drop period, they will need permission of the teacher and the parent, and approval of the department head and the counseling director. A firm plan needs to be in place (e.g., VLACS class, ELO, etc.) before they can exit their scheduled class.
- Students who drop a class after the 5-day deadline will receive a grade of W.
- Students may move into/out of weighted classes (for example, moving from Honors Algebra II to Algebra II) until the end of the fifth week of the class, upon a written request by the parent and with the support of the teacher as space and scheduling permit. This would not be considered a withdrawal from the class.
- If a student is retaking a class to improve a grade, the new grade will show on the transcript and be figured into the GPA calculation. The old grade will also remain on the transcript; however, the point value will not be figured. Students typically only earn one credit for a repeated class.

Middle School Credit

The District's [Policy IMBD](#) states students in 7th and 8th grade may take advanced courses and apply the credit associated with those courses toward high school graduation, provided the course demonstrates content requirements consistent with related high school courses and the student achieves satisfactory standards of performance.

IMPORTANT NOTE: The Assistant Superintendent and High School Principal need to approve such course work and credit **prior** to the student enrolling in the class in order for such credit to be applied toward high school graduation.

Alternative Credit Options

Extended Learning Opportunities

Students may engage in educational experiences that reach beyond the brick and mortar of the school, the regular school day as well as extend their learning beyond the standard offerings. Students shall not be permitted to take more than two extended learning opportunities simultaneously. Students may include a maximum of 6 credits for extended learning opportunities on their transcript. Extended Learning Opportunities are assessed on a pass/fail basis.

Internships

Students may also wish to experience the world of work first hand by becoming an intern at a local business. While internships can be used in a variety of ways, they work best when they are the capstone or culminating event in a student's high school course of study. For example, a student who is interested in pursuing a career as a dental hygienist should take all the appropriate science and health occupations classes before becoming an intern at a local dental office. This way, the student is able to have the best possible experience as an intern while the local business gains the benefit of working with a student truly interested in the profession. Open to Juniors and Seniors only. Internships are assessed on a pass/fail basis.

Registered Apprenticeships

A Registered Apprenticeship is a way to learn a great career while you work and get paid. There are over 1,000 career opportunities — and not just in the construction trades. Many apprentices are working in traditional building trades like plumbing, electricity, ironwork, and carpentry. Today's apprentices are also learning trades like biotechnology, child development, health care, information technology, environmental services, food services, geospatial technologies, military, maritime, and hundreds of other fields.

Registered apprenticeship connects job seekers looking to learn new skills with employers looking for qualified workers. Apprentices benefit from a combination of hands-on and classroom training, while earning pay. Employers benefit from connecting with workers who have the knowledge, skills, and experience they need. The result is a workforce with industry-driven training and employers with a competitive edge. A Registered Youth Apprenticeship program allows students to begin an apprenticeship program while still in the final years of high school.¹ Students who are interested in a registered apprenticeship should speak with their counselor and also do some research at <https://apprenticeshipnh.com/> to research what career fields have apprenticeships available. In most cases, students must be at least 16 years old to be eligible.

Credit Recovery

Students must meet with their school counselor to review their transcripts and discuss the possibility of credit recovery coursework prior to registering for a class.

- If a student is completing specific coursework to improve a grade, they will work with the content teacher and the school counselor to develop a plan and a timeline for completion. Typically, credit recovery is assessed on a pass/fail basis.
- If a student is retaking an entire class to improve a grade, the new grade will show on the transcript and will be figured into the grade point average calculation. The previous grade will also show; however, the point value will not be figured.

Summer Programming

Students have the opportunity to take credit recovery and first-time credit classes during a five week summer session. Students are invited to register for classes, and there may be a designated fee. *Capacity and offerings may be influenced/restricted by COVID-19 Response.*

- Summer Credit Recovery: When a student fails a class during the regular school year, they may be able to recover the credit for that class by attending Summer Credit Recovery. Upon successful

¹ From <https://www.nhes.nh.gov/elmi/career/apprentice.htm>

This document is a draft, and will be finalized in July 2023

completion, the course name, grade, and credit will be posted to the student transcript with the designation of “Summer Credit Recovery.” These credits are assessed on a pass/fail basis.

- **Summer Academy:** When a student wishes to attend Summer Academy class(es) for enrichment, the course name, grade, and credit will be posted to the student transcript with the designation of “Summer Academy.”

Specialized Programs

ConVal High School (CVHS) believes strongly in the value of each and every student and creates opportunities to meet the needs of all students. We carry with that a strong value of a school dedicated to providing full inclusionary opportunities for our students. In addition, the CVHS Special Education Department ensures that students with educational disabilities are provided a Free Appropriate Public Education (FAPE) as mandated by the IDEA to all students 9-12 who have been determined to have an educational disability. Services are determined in response to the student's unique needs and are based upon the student's Individual Education Plan (IEP). With full inclusion as the foundation of our practice, these services will be provided in the Least Restrictive Environment (LRE) providing access to the general education curriculum. CVHS has developed a wide array of programming supports to meet the unique needs of each student.

Programming Supports and Services

Learning Lab/Skills: Designed and implemented for students who benefit from specialized instruction in reading, math, written expression, and executive functioning skills, in order to improve skills and close student learning gaps in these areas. The skills lab is taught by dedicated special education teachers specializing in skill development in each content area.

Intensive Learning Skills (ILS): Designed and implemented for students who benefit from significant and intensive support in math, reading, writing skills, and functional life skills, and who experience deficits in those skills areas. A significant component of this program is designed to prepare students (and post-grad students) for transitioning to independence and supported independence in the community. The ILS program is served by dedicated special education teachers, related services personnel (occupational therapists, speech/language therapists, physical therapists and Board Certified Behavior Analyst), and paraprofessionals.

Expect Success Program (ESP): Designed and implemented for students who benefit from specialized instruction and significant social-emotional support in order to successfully maneuver the required high school graduation requirements and general classroom curriculum requirements. Students are supported in the general curriculum by program staff who have received specialized training in crisis prevention and intervention (such as Life Space Crisis Intervention and Crisis Prevention Institute) and can assist students with implementing learned skills in emotional regulation, executive functioning and other areas of need.

General Curriculum Supports: General curriculum supports are provided in core content areas: English, Math, Social Studies, and Science. Co-taught classes may be provided in English 9, 10, and 11, Government/Economics, Eastern World Heritage, U.S. History, Pre-Algebra, and Algebra I. In these classes, the regular education teacher and special education teacher collaborate in the planning and the delivery of class content. The special education teacher is instrumental in these classes in providing the targeted instruction beneficial to all students. Para-educator support may also be provided, based on the individual education plan.

Adult Diploma Program

The ConVal Adult Diploma Program (ADP) is a 20 credit diploma offering available for students seeking an alternative to the 26 credit diploma offering at ConVal. Students must apply for admission to the Adult Diploma Program by March 31st of their Senior/Graduating year and be approved by the [Adult Diploma Director](#). Students under the age of 18 must have written permission from their parent/guardian. Once approved, students will work with the Adult Diploma Director and their School Counselor to develop their individual plan.

A ConVal Adult Diploma requires students to obtain a minimum of 20 credits as outlined by the State of New Hampshire. In order to be eligible for an ADP diploma students must complete a required minimum 45 credit hours from a pre-approved ADP offering that must be separate from a ConVal credit-bearing class. Options include (but are not limited to): Work Study, Internship, Independent Study, ELO, Credit Recovery, HiSET Prep class, ConVal night class, or a distance learning class through Brigham Young University, VLACS, or another accredited online institution. This alternative is not recommended for students who plan to apply to four-year colleges after high school.

English Department

The course of study in the English department consists of a set of core required one-credit classes and a variety of full credit and half-credit classes that are electives. All students are required to complete four (4) credits of English for graduation, and there are required classes in English for freshmen, sophomores, and juniors. All students must complete three (3) of their four (4) required English credits through the appropriate level of classes with the remaining credit satisfied with electives of choice with recommendations from the department.

Class	9	10	11	12	Prerequisite
English 9	x				None
English 9 Honors	x				None
English 10		x			English 9/9H
English 10 Honors		x			Completion reading/writing sample
English 11 American Cultural Studies			x		English 10/10H
AP English Language & Composition			x	x	Completion of a reading/writing sample
AP English Literature			x	x	Completion of a reading/writing sample
College Composition			x	x	English 11 or AP Lang & Comp or AP Literature
Young Adult Fiction	x	x	x	x	None
Philosophy			x	x	None
Aesthetics & Ideas <i>Can be taken for English credit and/or for Arts Education Credit</i>		x	x	x	None
Introduction to Communication	x	x	x	x	None
Mass Media Communication	x	x	x	x	None
Creative Writing Workshop	x	x	x	x	None
Human Nature & Storytelling		x	x	x	English 9
Introduction to Theater Arts <i>Can be taken for English credit or for Arts Education Credit</i>	x	x	x	x	None
Theater Arts Workshop <i>Can be taken for English credit or for Arts Education Credit</i>	x	x	x	x	Intro to Theater Arts

English 9

Course Level: 012

Term: Semester, or full-year A/B rotation with Pre-Algebra

Credit: 1

Prerequisite: None

Grade: 9

The freshman program provides a foundation for secondary school English. Students study a range of literary genres and nonfiction, focus on a variety of writing modes, and practice speaking, listening,

and viewing. Introducing students to important concepts they will need throughout their high school careers and beyond, the class follows a program shaped by a series of essential questions and the Common Core State Standards. It is supplemented with three additional texts (*Of Mice and Men*, *Tuesdays with Morrie*, and *Romeo & Juliet*). Students will work toward proficiency in reading by using several comprehension strategies, including summarizing, predicting, and two-column note taking; and in writing by composing informational and expository multi- paragraph essays.

English 9 Honors - extension (*may be scheduled concurrent with English 9*)

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: None

Grade: 9

This class, designed as an extension for students who demonstrate proficiency in reading and writing, supplements the core English program for grade 9 with additional literary works, writing assignments, and projects. This upper-level English class is an extension of the English 9 class; students in both levels are in the same class at the same time. Students choose whether or not to opt in to the Honors level at the end of the first unit of study.

English 10

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: English 9

Grade: 10

The sophomore program extends the areas of emphasis in English 9, with study of a variety of literary genres and nonfiction, and a focus on writing and practice in speaking, listening, and viewing. Continuing to use a program shaped by essential questions and the Common Core State Standards, along with three supplementary texts (*To Kill a Mockingbird*, *Night*, and *Macbeth*), students will master essential skills in reading and writing that will promote their learning in all disciplines. Students will increase their proficiency in writing as citing textual evidence becomes the norm in responding critically to literature. Essays of argument will feature more prominently in the curriculum. As reading for comprehension becomes more challenging and more is required outside of the classroom, students will identify and focus on those reading strategies that work best for them individually.

English 10 Honors

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: English 9/9H and a reading/writing sample

Grade: 10

For students who have demonstrated proficient skills in reading and writing, this class supplements the tenth grade core curriculum with additional reading, writing, and projects. This is designated as an honors class with longer and additional reading assignments, and more complex writing and research assignments. Preparatory assignments or work may be required prior to the start of the semester.

English 11/American Cultural Studies

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: English 10/10H

Grade: 11

This core class for eleventh graders will introduce students to the major ideas and concepts of American culture historically and in the present culture. Students will reflect on the American experience in literature, media, film, and their own writing. Along with a focus on research, speaking and listening, students will continue to build their proficiency in the Common Core State Standards of reading and writing.

Advanced Placement (AP) English Language & CompositionCourse Level: 010Term: Full YearCredits: 2Prerequisite: Completion of a reading/writing sampleGrades: 11, 12

For juniors, and seniors motivated to dedicate two semesters to developing their thinking, reading, and writing skills for life-long and college and career-ready application. This class offers diverse and engaging opportunities to build essential writing and reading skills helpful for all writing purposes -- academic, rhetorical, and literary. Students primarily read and analyze non-fiction; however, they also study fiction, drama, and poetry. Writing assignments focus on the essay form: argument and explanatory essays, in particular, narrative and personal writing, as well. As part of the class, students will also practice and prepare for the Advanced Placement Language and Composition Examination in May.

Advanced Placement (AP) English LiteratureCourse Level: 010Term: SemesterCredit: 1Prerequisite: Completion of a reading/writing sampleGrades: 11, 12

This is a class for juniors and seniors excited about reading literature and developing both their analytical reading skills and argument and explanatory writing skills. Students close-read classic and contemporary fiction, poems, and plays, and develop their understanding of the ways writers use language in literary texts to provide both meaning and pleasure to readers. Through daily reading, writing, and discussion, students consider the writer's use of structure and style, especially as it relates to the theme. Also in relation to theme, students examine the smaller-scale elements of text, such as the use of diction, figurative language, imagery, symbolism, and tone. Units include practice in timed-essay writing and the application of various forms of literary criticism. Writing-to-learn and multiple-draft processes are central to the class. Students will also prepare for the AP Literature Exam in May.

College Composition / ~ Running Start (tentative) ~Course Level: 010Term: SemesterCredit: 1Prerequisite: English 11 or AP English Lang/CompGrades: 11, 12

In this class, students learn to write clearly and effectively for defined audiences through a variety of strategies. Emphasis is on the writing process from pre-writing through drafting, revising and editing. Students gain confidence through learning the basic principles of effective expository composition and the application of these principles in writing essays and documented papers. Students will also read and examine a wide variety of writers and writing styles. This class is a core requirement for all degree programs at Nashua Community College. *Running Start Class: Dual credit option for this class is available for Juniors and Seniors and may fulfill the first level writing class at many colleges.*

Young Adult FictionCourse Level: 012Term: SemesterCredit: 1Prerequisite: NoneGrades: 9-12

Did you love *The Hunger Games* and *Divergent*? Obsessed with *City of Bones*? Did you devour the *Twilight* series, or perhaps the more recent *Daughter of Smoke and Bone*? This class will explore the current phenomena of dystopian, paranormal, and fantasy literature as sure-fire best sellers. Reading, writing, and research will be central to the class as students explore the conventions of these genres, consider themes within and among the texts, and examine what makes them so popular with a wide range of readers.

Philosophy

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 11, 12

Students in this survey class of Western philosophy study the philosophies and writings of such thinkers as Plato, Aristotle, Montaigne, Emerson, Dewey, Huxley, Hesse, Rand, and Nussbaum. In developing a basic understanding of ethics, citizenry, and effective writing and speaking, each student develops philosophies of their own. The emphasis of the class is on self-knowledge and community building through reading, writing, speaking, and listening.

Aesthetics and Ideas

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

Asking the essential question, “how art, stories, faiths and philosophies shape individual and community identities,” this Art and English department collaboration explores everything great about art, language and ideas. Through large group, small group, independent and online explorations, students and teachers will look at what it means to be human, the power of communication and community and how, what, and why humans have made, collected and shared art and stories and faiths and philosophies to both unite and separate themselves from other cultures, societies and traditions. This class is heavy on thinking, making and doing. Be excited, be very, very excited. This class awards .5 credit in Art and .5 in English or can be taken for a full English credit. **Students must inform the instructor of their preference at the start of the class.**

Introduction to Communication

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

This class introduces students to communication in interpersonal, small group, and public speaking settings. Class topics include the foundations of communication (perception, language, nonverbal communication), interpersonal communication, small group communication, public speaking, and interviewing. Students will study communication skills, understand the communication choices they can make, and evaluate the consequences of those choices.

Mass Media Communication

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

This hands-on class will allow students to work on real news stories and features for school as well as class publications. Additionally, they will participate in formal and informal discussions about journalistic ethics, issues, and the role journalism plays in our culture. Students will analyze the changing journalistic landscape and evaluate how emerging mediums affect how news is disseminated and consumed. Further, students will employ a variety of these mediums to report on the stories they investigate.

Creative Writing Workshop

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

This semester class will give students more advanced instruction and practice in creative writing (incl. fiction, poetry, and dramatic writing). Students will write every day, revise each piece, and bring to a

final draft at least one piece every two weeks, resulting in a portfolio that will be assessed for a final grade. Peer workshop revision and editing will be part of the daily writing process.

Human Nature & Storytelling

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: English 9

Grades: 10, 11, 12

The world is made of stories. Even this statement is a story -- it's true! If you are curious about yourself, your friends and family, and your neighbors, if you are interested in strange people, unfamiliar cultures, far-flung real and imaginary worlds and time periods, this is the class for you. Through close reading and viewing, listening and discussing, and note taking and writing, we will look at ourselves and our stories as shared in film, plays, podcasts, poems, and short stories. We will make a few stories of our own, too!

Introduction to Theater Arts

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

Theater Arts is a production-based introductory class in which students learn and practice acting, directing and technical theater skills along with theater history, and script analysis. Students participate in various improvisation and theater games, as well as other community building activities. Learning about the design and building of sets, costumes, make-up, lights and sound, students identify meaning and technique in the visual components of performance. Acting skills are also identified and explained through the monologue process. The "final showcase" of the class allows a student to select one or two areas of expertise to help produce a selection of work to present to an invited audience. *This class may be taken for either English or Visual and Performing Arts Credit. **Students must inform the instructor of their preference** at the start of the class.*

Theater Arts Workshop

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Introduction to Theater Arts

Grades: 9-12

Theater Arts Workshop a production-based class designed for students with an interest in exploring the process of creating and developing their own creative theater work. Students in this class may work on skills in directing, performing, technical design, playwriting, etc. Students will present their work in a culminating Showcase. Attendance at the final showcase is required. Students taking this class must be prepared to commit time outside of class for auditions, rehearsal and performance time if they seek to direct a short play. This class may be taken multiple times. Students must have either previously taken Introduction to Theater Arts or have involvement in a theater program with the approval of the instructor. *This class may be taken for either English or Visual and Performing Arts Credit. **Students must inform the instructor of their preference** at the start of the class. May be repeated for credit.*

Health and Wellness Department

To qualify for high school graduation, students need to complete one (1) credit in Physical Education and one (1) credit in Health. ConVal High School has integrated physical education and health to offer students a two-part Health and Wellness program. By completing Health & Wellness 1 and Health & Wellness 2, students will meet the graduation requirements for physical education and health.

Class	9	10	11	12	Prerequisite
Health & Wellness I	x	x			None
Health & Wellness II			x	x	Health & Wellness I
Personal Fitness		x	x	x	Health & Wellness I
Yoga		x	x	x	Health & Wellness I

Health & Wellness I

Course Level: 123

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9, 10

Health and Wellness 1 is a combined physical education and health class. The focus of the class is to develop the understanding, knowledge and skills needed to maintain an appropriate level of health and fitness, to engage in health enhancing activities and to develop an understanding of how personal fitness and overall wellness provide benefits that lead to a healthy lifestyle. Students will be required to change into athletically appropriate clothing everyday.

Health & Wellness II

Course Level: 123

Term: Semester

Credit: 1

Prerequisite: Health & Wellness I

Grades: 11, 12

Health and Wellness 2 is a combined physical education and health class that builds on the skills and knowledge learned in Health and Wellness 1. The focus of the class is to develop a greater understanding of the lifelong benefits of health and fitness through the skills of self-management and advocacy. In PE the emphasis will be on developing the skills and knowledge needed to enhance physical fitness and on activities that promote a lifelong appreciation of the benefits of physical activity as part of a healthy lifestyle. Students will be expected to change into athletically appropriate clothing for PE. In health the emphasis will be on the skills and knowledge needed to plan and implement lifelong, health enhancing activities and to become health literate adults.

Personal Fitness

Course Level: 123

Term: Semester

Credit: 1

Prerequisite: Health & Wellness I

Grades: 10, 11, 12

This class is designed to give students the opportunity to learn fitness concepts and conditioning techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardiorespiratory endurance activities. Students will learn the basic fundamentals of strength training, aerobic training, and overall fitness training and conditioning. The class will include both lecture and activity sessions. Students will be empowered to make wise choices, meet challenges, and develop positive behaviors in fitness, wellness, and movement activity for a lifetime. Students will be required to complete weekly written assignments and to participate in daily work out

sessions (workout appropriate clothing is required). This is an elective class and may be taken sophomore, junior or senior year.

Yoga

Course Level: 123

Term: Semester

Credit: 1

Prerequisite: Health & Wellness I

Grades: 10, 11, 12

Yoga is an ancient form of exercise that focuses on the unification of body, mind, and breath while practicing a variety of physical postures and movement sequences. Students will learn yoga poses, breathing exercises, relaxation and mindfulness techniques to strengthen, align, and balance the body, focus the mind, and soothe and recharge the nervous system. Discussions and reflective writing will center on body systems, managing stress and feelings, and the impact of one's behavioral choices, as well as education in health, nutrition, and life skills. This is an elective class and may be taken sophomore, junior or senior year.

Mathematics Department

Planning is important in selecting mathematics classes. Personal interest, graduation requirements, and college requirements should be considered in determining which classes are taken and in what order. Three (3) mathematics credits are required for graduation for the class of 2022. Four (4) credits are required for the class of 2023 and beyond and must include Algebra I. Students must be enrolled in a math class every semester until the Algebra I completion requirement is met. A sequence of classes through Algebra II is typically required for college admission; Algebra III and/or Trigonometry are recommended for more competitive schools.

Class	9	10	11	12	Prerequisite
Pre-Algebra	x	x	x		Teacher Recommendation
Algebra I part 1	x	x	x	x	
Algebra I part 2	x	x	x	x	Algebra I part 1
Geometry Concepts		x	x	x	Algebra I
Geometry	x	x	x	x	Algebra I
Geometry Honors	x	x	x	x	Algebra I
Algebra II	x	x	x	x	Algebra I
Algebra II Honors	x	x	x	x	Algebra I
Topics in Algebra	x	x	x	x	Algebra I
Algebra III		x	x	x	Geometry and Algebra II
Trigonometry		x	x	x	Algebra III
Statistics			x	x	Algebra II
Calculus			x	x	Trigonometry
AP Calculus			x	x	PreCalculus Honors or Trigonometry
AP Calculus/Physics			x	x	AP Calculus and Teacher Recommendation

Pre-Algebra

Course Level: 123

Term: Semester, or full-year A/B rotation with English 9

Credit: 1

Prerequisite: Teacher Recommendation

Grades: 9, 10, 11

This class is designed to reinforce the computational skills and basic algebraic and geometric concepts needed to be successful in Algebra I and Geometry. Class content includes: operations with whole numbers, fractions, decimals, percentages, and integers; an introduction to geometric terms, area and perimeter; an introduction to algebraic expressions and equations; and an introduction to probability. Time will be devoted to both practicing skills and applying skills and concepts to real world problems.

Algebra I, Part 1Course Level: 012Term: SemesterCredit: 1Prerequisite: NoneGrades: 9-12

This class is designed to build upon the computational and basic algebraic skills developed in Pre-Algebra. Class content includes: Evaluating and simplifying expressions, solving linear, quadratic and exponential equations as well as inequalities and systems, and graphing linear, quadratic and exponential functions.

Algebra I, Part 2Course Level: 012Term: SemesterCredit: 1Prerequisite: Algebra I, Part 1 must be taken firstGrades: 9-12

This class is a continuation of Part 1.

Geometry ConceptsCourse Level: 123Term: SemesterCredit: 1Prerequisite: Algebra IGrades: 10, 11, 12

This class is designed to allow students to gain experience with basic geometric properties. Students will learn the properties of angles, fundamental geometric shapes, and how to develop skills in measurement (perimeter and area). Topics will also include an exploration of theorems related to right triangles and triangle similarity and congruence.

GeometryCourse Level: 012Term: SemesterCredit: 1Prerequisite: Algebra IGrades: 9-12

Geometry provides students with experiences that deepen the understanding of two dimensional objects and their properties. Cooperative learning groups will be used to develop deductive and inductive reasoning, analyzing conjectures and formulating proofs. Investigative strategies in drawing conclusions are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) polygons, with a special focus on quadrilaterals, triangles, right triangles; (3) circles.

Geometry HonorsCourse Level: 010Term: SemesterCredit: 1Prerequisite: Algebra IGrades: 9-12

Honors Geometry provides students with the same foundations they develop in Geometry. In addition, other topics are introduced and concepts are covered in more depth, at a faster pace. More complex proofs are addressed and more open-ended questions are assigned.

Algebra IICourse Level: 012Term: SemesterCredit: 1Prerequisite: Algebra IGrades: 9-12

Algebra II is a continuation of the Algebra I class. The objective is to complete a study of Algebra II topics, including: the structure of the real number system with an extension into the complex number system and a careful study of mathematical functions (constant, linear, quadratic, radical, polynomial,

logarithmic, and exponential). Students will solve equations for the roots of these functions, as well as graph transformations.

Algebra II Honors

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: Algebra I

Grades: 9-12

Honors Algebra II is a continuation of the Algebra I program for students who have demonstrated exceptional mathematical ability or are willing to challenge themselves. The objective of this class is to complete a study of Algebra II topics. These topics include, but are not limited to: the structure of the real number system with an extension into the complex number system, a careful study of mathematical functions (constant, linear, quadratic, polynomial, rational, logarithmic, and exponential), sequences and series, and permutations, combinations and probability. Emphasis will be placed on solving challenging real world problems in a fast-paced environment.

Topics in Algebra

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Algebra I

Grades: 9-12

This is a survey class, focusing primarily on the algebra skills needed to enter the work-force or community colleges. Students will further develop their abilities in simplifying and evaluating polynomial and rational expressions as well as solving linear equations and inequalities, quadratic equations and systems of linear equations. Emphasis will be placed on applying these skills in solving real-world problems. This class is designed to prepare juniors or seniors to take an entry-level community college math class. The class content is similar to that of an Algebra I class with a few elements from Algebra II. Students may not take this class if they have already earned a credit in Algebra II.

Algebra III

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Algebra II and Geometry

Grades: 10, 11, 12

In this class, students will develop an in-depth knowledge of the nine algebraic functions: linear, absolute value, quadratic, cubic, greatest integer, radical, rational, exponential, and logarithmic. Other topics may include: Conic Sections, Limits, Sequences and Series, and Vectors.

Trigonometry

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Algebra III

Grades: 10, 11, 12

This class will focus on a study of trigonometry, including: analyzing and graphing the six trigonometric functions, solving trigonometric identities, and applying this knowledge to a study of vectors, parametric equations, and polar equations. Students will also incorporate a study of analytic geometry in two and three dimensions. An emphasis will be placed on problem solving and applications.

Statistics

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Algebra II

Grades: 11, 12

Statistics is a college-level, non-calculus based class in introductory statistics. It is an excellent option for any student who has successfully completed Algebra II. This class is designed to present strategies for collecting, organizing, and drawing conclusions from data. Students will learn to interpret and judge the statistical information in the world around them. Computers and calculators will allow students to investigate and explore statistical concepts. Effective communication skills will be developed through regular written analysis of real data.

Calculus

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Trigonometry

Grades: 11, 12

This class is designed for those students who want to gain a basic understanding of differential and integral calculus in one semester. The class will provide students with a solid foundation for the AP Calculus class or college calculus.

Advanced Placement (AP) Calculus / ~ Running Start ~ (tentative)

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: Trigonometry

Grades: 11, 12

Understanding concepts and techniques of calculus is required for study of advanced mathematics, physical sciences, life sciences, economics, business, and other disciplines. AP calculus, for students with demonstrated ability and interest in mathematics, is equivalent to at least a two-semester college-level class in differential and integral calculus. The class content conforms to the College Board AP Program recommendations but is not limited to that. AP Calculus prepares students to take either the AP Calculus AB level or BC level exam. Which exam a student chooses will be determined based upon the student's performance in the class. Successful exam scores may result in advanced placement and/or college credit. *Running Start Class: Dual credit option for this class is available for Juniors and Seniors. Up to 8 college credits can be earned for this class.*

Advanced Placement (AP) Calculus/Physics / ~ Running Start ~ (tentative)

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: AP Calculus

Grades: 11, 12

Calculus was initially developed as a tool to solve problems in many areas, particularly in physics. This class is designed to reinforce that idea. While adhering to both curriculums, the students will be applying their newly found calculus knowledge to physics problems. Upon completing the class students will receive two credits, one math and one science, and have the opportunity to take three AP exams. *Running Start Class: Dual credit option for this class is available for Juniors and Seniors.*

Science Department

The ConVal Science curriculum is aligned to national science standards. The Next Generation Science Standards (NGSS) emphasize teaching students the skills and practices that scientists and engineers use on a daily basis as well as concepts related to the content area. Three credits in Science are required for graduation with at least one physical science credit and one biological/life science credit.

Class	9	10	11	12	Prerequisite
Physical Science ^{*+}	x				None
Earth and Space Science		x	x	x	Physical Science (Biology recommended)
Biology ^{*++}		x			Physical Science
Honors Biology ^{*++}		x			Physical Science
Oceanography [*]		x	x	x	Biology
Environmental Science [*]		x	x	x	Biology
Chemistry [*]		x	x	x	Physical Science and Algebra I
Honors Chemistry [*]		x	x	x	Physical Science and Algebra I
AP Chemistry [*] Typically offered alternate years; scheduled to be offered 2023-24			x	x	Chemistry, Algebra II, Biology
Physics [*]		x	x	x	Physical Science, Algebra I and Geometry
AP Biology [*] Typically offered alternate years; scheduled to be offered 2024-25			x	x	Biology. In addition, Chemistry and Algebra II taken prior or concurrently.
AP Calculus/Physics (<i>cross-listed with math</i>)			x	x	AP Calculus/Teacher Recommendation
Anatomy & Physiology 1 [*]			x	x	Biology
Anatomy & Physiology 2 [*]			x	x	Biology

* Indicates laboratory science class

++ Meets requirements of being a Biological/Living science

+ Meets requirements of being a Physical Science

Physical Science

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grade: 9

Physical Science is ConVal's introductory laboratory science class covering the basics of scientific and engineering practices and STEM principles. Chemistry topics include matter and energy while physics topics include motion, forces and waves. Students will engage in hands-on labs, inquiries and

activities, apply math and graphing to many scientific problems, and will be challenged to understand and analyze natural phenomena.

Earth and Space Science

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Physical Science (Biology Recommended)

Grades: 10, 11, 12

Earth and Space Science is designed to take students on a journey from the beginning of our universe, to the formation of the stars, to the future of life on Earth. Students will explore living and nonliving systems and how they affect our planet. Topics will include the Big Bang Theory, the fate of the sun, stellar evolution, Earth's place in space, the impacts of shifting tectonic plates, the flow of energy and recycling of matter, climate change causes and effects, and humanity's evolving relationship with the Earth. Students will explore Earth and Space Science through individual and group activities, argumentative writing, collaborative efforts to problem-solve, science and engineering practices, and research-based STEM projects.

Biology

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Physical Science

Grade: 10

Biology, the study of life, refines students' understanding of themselves as living organisms. This laboratory science class examines the relationship between cell structure and function, unity and diversity among life forms, and heredity. Students will better understand how living organisms function and interact as well as society's biomedical, ecological, and ethical issues so that they will be able to make informed decisions as citizens.

Honors Biology *(may be scheduled concurrent with Biology)*

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: Physical Science

Grade: 10

Students enrolled in Biology will have the option of extending their learning to the molecular basis of life in preparation for AP Biology. This will involve more reading, writing, and independent work. To be successful, Honors Biology students must demonstrate proficient time management, active reading, and abstract thinking skills. Students choose whether or not to opt in to the Honors level at the end of the first unit of study.

Oceanography

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Biology

Grades: 10, 11, 12

This demanding class stresses the essential principles of Ocean Literacy. These include learning to communicate in a meaningful way about the ocean and making informed and responsible decisions regarding the ocean and its resources. Students will explore the physical, chemical, geological, and biological aspects of the ocean. Some specimen dissection should be expected. *This course follows NGSS (Next Generation Science Standards).*

Environmental Science

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Biology

Grades: 10, 11, 12

This demanding class combines the study of local ecosystems with that of current environmental issues. Field and laboratory investigations will be used to explore biodiversity and local aquatic and

terrestrial habitats and understand the ecosystem processes that maintain these systems. Students will examine our changing global environment and develop an understanding of innovative ways to conserve our natural resources. Frequent trips outdoors, even in cold weather, should be expected. *This course follows NGSS (Next Generation Science Standards).*

Chemistry

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Physical Science and Algebra I

Grades: 10, 11, 12

This laboratory science class prepares students for college entry and emphasizes experimental chemistry techniques and problem-solving skills. Topics include formulas of chemical compounds, writing and balancing chemical equations, chemical reaction types, acids and bases, and calculations involving chemical quantities. The chemistry of Forensic Science, such as fingerprint analysis, ink separation techniques, and soil analysis, will also be investigated. Students must have solid time management skills and the motivation to master the basic mathematical concepts of chemistry.

Honors Chemistry

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: Physical Science and Algebra I

Grades: 10, 11, 12

This laboratory science class is designed to meet the needs of the highly motivated student who demonstrates strong writing, reading, and critical thinking skills, and has a genuine interest in the sciences. Laboratory experiments stress inquiry, mathematical analysis of data, and application to real-world problems. This class prepares students for success in Advanced Placement Chemistry and offers many opportunities for hands-on exploration of many chemistry topics.

Advanced Placement (AP) Chemistry

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: Chemistry, Algebra II, Biology (Honors Recommended)

Grades: 11, 12

This laboratory science class is designed to be the equivalent of the general chemistry class taken during the first year of college. Students will prepare for the AP Chemistry exam, which provides for the possibility of college credit. Laboratory work and demonstrations supplement the lecture portion of the class. This class is offered alternate years with AP Biology. **This class will be offered in the 2023-24 school year;** it is typically offered alternate years with AP Chemistry. *Running Start Class: Dual credit option for this class is available for Juniors and Seniors.*

Physics

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Physical Science, Algebra I, Geometry

Grades: 10, 11, 12

This is a conceptual physics class requiring working skills in Algebra and Geometry. Class content includes the fundamentals of energy, matter, work, force, and motion, including inertia, momentum, and gravitational attraction. Students will explore these properties through numerous hands-on investigations.

Advanced Placement (AP) Biology / ~ Running Start ~

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: Biology. In addition, Chemistry and Algebra II prior or concurrent.

Grades: 11, 12

This lab-based class is designed to be the equivalent of the general biology class taken during the first year of college. The unifying themes of this class are Evolution, Energy and Matter, and Interactions

within Biological Systems. Students explore these topics through several hands-on inquiry investigations, both at the microscopic and macroscopic level. A minimum of 25% of the class is spent engaging in laboratory exercises. Lecture notes, group projects, and assigned readings are used to reinforce student learning. This class prepares students for the AP Biology Exam, which provides opportunity for college credit. *This class is typically offered alternate years and is scheduled to take place in 2024-25.*

Advanced Placement Calculus/Physics / ~ Running Start ~

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: AP Calculus

Grades: 11, 12

Calculus was initially developed as a tool to solve problems in many areas, particularly in physics. This class is designed to reinforce that idea. While adhering to both curriculums, the students will be applying their newly found calculus knowledge to physics problems. Upon completing the class students will receive two credits, one math and one science, and have the opportunity to take three AP exams. *Running Start Class: Dual credit option for this class is available for Juniors and Seniors.*

Anatomy and Physiology I

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Physical Science and Algebra I

Grades: 11, 12

This very demanding class was designed for students who have expressed an interest in pursuing a career in a health-related field. Students in this class explore the systems of the human body through both individual and group projects. Participation in dissections, lectures, laboratory experiences and independent research is required. The successful student demonstrates good time management skills. Content addressed in A&P 1 includes: introduction of anatomy and physiology, organization of the body, medical terminology, histology, integumentary system, skeletal system, muscular system, nervous system, somatic and special senses, cat or rabbit dissection, and health care issues. *Anatomy and Physiology is a two-part class; students may opt for A&P 1 or A&P 2 separately and in any order for one credit each.*

Anatomy and Physiology II

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Biology

Grades: 11, 12

This very demanding class was designed for students who have expressed an interest in pursuing a career in a health-related field. Students in this class explore the systems of the human body through both individual and group projects. Participation in dissections, lectures, laboratory experiences and independent research is required. The successful student demonstrates good time management skills. Content addressed in A&P 2 includes: endocrine system, blood and lymphatic systems, cardiovascular system, respiratory system, digestive system, nutrition and metabolism, urinary system, reproductive system, health occupations, history of medicine, and current healthcare issues. *Anatomy and Physiology is a two-part class; students may opt for A&P 1 or A&P 2 separately and in any order for one credit each.*

Social Studies Department

All students are required to complete three (3) credits in Social Studies for graduation. Credits are earned by completing one credit in Eastern World Heritage; one credit in the required US History program and one credit of the required Government/Economics.

Class	9	10	11	12	Prerequisite
Eastern World Heritage	x				None
Western World Heritage		x	x	x	Eastern World Heritage
AP World: Modern		x	x	x	Eastern World Heritage
American Economics/Government		x	x	x	None
United States History			x	x	Eastern World Heritage or comparable equivalent
AP United States History			x	x	Eastern World Heritage
World Religions			x	x	None
Psychology			x	x	None
Post World War II			x	x	United States History
Social Studies through Sports	x	x	x	x	None

Starting with the class of 2024, students must pass the Citizenship Test with a 70% or higher in order to graduate. This test will be administered to students during social studies class beginning in Grade 10.

Eastern World Heritage

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grade: 9

This class will examine both the historical and geographic trends that have led to the development and sustainability of Eastern civilizations. Beginning with a study of geographic principles students will conduct a brief study of current issues in the Eastern World. Through the rest of the semester students will examine how Eastern civilization developed and interacted with Western civilizations from development of Islam to current globalization. Skills needed for the rest of the high school social studies program will be introduced and practiced.

Western World Heritage

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Eastern World Heritage

Grades: 10, 11, 12

This class will examine both the historical and geographic trends that have led to the development and sustainability of Western civilizations. Beginning with a study of the cultural hearths of Europe, Africa and Meso-America, students will conduct a brief survey of how Western civilization developed and

interacted with Eastern civilization from the first globalization to the present. Skills needed for the rest of the high school social studies program will be introduced and practiced.

Advanced Placement (AP) World: Modern

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: Eastern World Heritage

Grades: 10, 11, 12

The purpose of the class is to develop a greater understanding of the evolution of global processes and contacts. The class highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The class builds on an understanding of cultural, institutional and technological precedents that, along with geography, set the human stage. Periodization forms an organizing principle for analyzing change. This class examines the great cultural civilizations of the Middle East, Europe, Africa, Asia, and Latin America.

American Government and Economics

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

This required class supports students in becoming active participants in the American Political and economic systems. Students learn the role of government and politics at the local, state and federal level, and explore the impact of the rule of law and our guiding principles. From an economic perspective, students will study the impact that scarcity has on individual, business, and federal government decisions, and will also delve into the micro and macro forces that influence financial, labor and global markets. This will be accomplished through an issues-based curriculum integrating both disciplines.

United States History

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Eastern World Heritage or comparable equivalent

Grades: 11, 12

This class will address selected topics and themes in American History beginning with the Civil War and ending with the events associated with September 11th, 2001. This class is intended for students who are seeking an understanding of the events and forces that have shaped modern American life.

Advanced Placement (AP) United States History

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: None

Grades: 11, 12

This class is for serious history students and will cover selected topics and events in American History beginning with the discovery of the New World and culminating with an analysis of the events of the 2000s. This class will prepare students for the AP Examination in US History.

World Religions

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 11, 12

This class will explore the religions of Judaism, Christianity and Islam and eastern religions such as Hinduism, Buddhism and Taoism. Students will explore, compare and evaluate the foundations, beliefs, practices and traditions of each religion. Students will evaluate why humans believe and analyze the empiricist criticisms of religious belief.

PsychologyCourse Level: 012Term: SemesterCredit: 1Prerequisite: NoneGrades: 11, 12

This class is for students seeking an understanding of human behavior, emotions and mental processes. Topics include the biological basis of behavior, human growth and development, personality development, learning and intelligence and mental health.

Post-World War IICourse Level: 012Term: SemesterCredit: 1Prerequisite: United States HistoryGrades: 11, 12

This class will be an in-depth analysis of US History, from 1945-present. Areas of political and social inquiry will include The Cold War, The Arms Race, The Civil Rights Movement, The Vietnam War, the Reagan/Bush era, the First Gulf War, and the Clinton Administration, 9/11, and terrorism.

Social Studies Through SportsCourse Level: 012Term: SemesterCredit: 1Prerequisite: NoneGrades: 9-12

This class is designed for students to explore the seven disciplines of social studies (history, geography, economics, political science, psychology, sociology, & anthropology) using sports as the common theme. At the completion of the class students will: 1) Develop a deeper understanding of basic political, economic, and historical concepts. 2.) Generate connections between sports, cultures, and societies worldwide in a meaningful way.

Visual and Performing Arts Department

All students are required to complete one half (.5) credit in Arts Education for graduation. The Visual and Performing Arts Department at CVHS is committed to fostering uniquely individual creative thought in a physically safe environment that encourages intellectual risk-taking. It is our fundamental belief that students should have a strong, skill-based foundation that provides opportunities to create, analyze and reflect on the role, value and impact the arts have on our society.

Class	9	10	11	12	Prerequisite
2D Studio Art	x	x	x	x	None
3D Studio Art	x	x	x	x	None
Ceramics	x	x	x	x	None
Aesthetics & Ideas <i>Can be taken for English credit and/or for Arts Education Credit</i>		x	x	x	None
Introduction to Theater Arts	x	x	x	x	None
Theater Arts Workshop		x	x	x	Intro to Theater Arts
Concert Band Includes options for Jazz Band and Marching Band Includes an Honors option	x	x	x	x	Jazz Band is by audition
Concert Choir Includes options for Chamber Choir and Select Choir Includes an Honors option	x	x	x	x	Select Choir is by audition
Intro to Guitar	x	x	x	x	None
Music in Media	x	x	x	x	None
History of Rock and Roll	x	x	x	x	None
Creative Keyboarding	x	x	x	x	None

Note: most classes in this department can be repeated for credit

2D Studio Art

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

The primary focus of this class will be exploring art and design concepts through two dimensional artworks such as drawing, painting, printmaking, and collage. The specific media and concepts will be based on the number of times the student has taken the class, their abilities and work ethic. This is a multi-level class where students may be taking for the first, second, third time. While primarily a studio class, there will be regular reflective writing assignments, sketchbook homework, and technology expectations (Google Classroom, Digital Portfolio, Presentations).

3D Studio Art

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

The primary focus of this class will be exploring art and design concepts through three dimensional materials such as cardboard, paper, wire, found objects and plaster. The specific projects, media and concepts will be based on the number of times students have taken the class, their abilities and work ethic. This is a multi-level class where students may be attending for the first, second, or third time. While primarily a studio class, there will be regular reflective writing assignments, sketchbook homework, and technology expectations (Google Classroom, Digital Portfolio, Presentations).

Ceramics

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

The primary focus of this class will be exploring art and design concepts, issues of function and craft through clay. The specific projects and concepts will be based on the number of times students have taken the class, their abilities and work ethic. This is a multi-level class where students may be attending for the first, second, or third time. While primarily a studio class, there will be regular reflective writing assignments, sketchbook homework, and technology expectations (Google Classroom, Digital Portfolio, Presentations).

Aesthetics & Ideas

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

Asking the essential question, “how art, stories, faiths and philosophies shape individual and community identities,” this Art and English department collaboration explores everything great about art, language and ideas. Through large group, small group, independent and online explorations, students and co-teachers from each department will look at what it means to be human, the power of communication and community and how, what, and why humans have made, collected and shared art and stories and faiths and philosophies to both unite and separate themselves from other cultures, societies and traditions. This class is heavy on thinking, making and doing. Be excited, be very, very excited. *This class awards .5 credit in Art and .5 in English or can be taken for a full English credit. Students must inform the instructor of their preference at the start of the class.*

Introduction to Theater Arts

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

Theater Arts is a production-based introductory class in which students learn and practice acting, directing and technical theater skills along with theater history, and script analysis. Students participate in various improvisation and theater games, as well as other community building activities. Learning about the design and building of sets, costumes, make-up, lights and sound, students identify meaning and technique in the visual components of performance. Acting skills are also identified and explained through the monologue process. The “final showcase” of the class allows a student to select one of two areas of expertise to help produce a selection of work to present to an invited audience. *This class may be taken for either English or Visual and Performing Arts Credit. **Students must inform the instructor of their preference** at the start of the class.*

Theater Arts Workshop

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Intro to Theater Arts

Grades: 10, 11, 12

Theater Arts Workshop a production-based class designed for students with an interest in exploring the process of creating and developing their own creative theater work. Students in this class may work on skills in directing, performing, technical design, playwriting, etc. Students will present their work in a culminating Showcase. Attendance at the final showcase is required. Students taking this class must be prepared to commit time outside of class for auditions, rehearsal and performance time if they seek to direct a short play. This class may be taken multiple times. Students must have either previously taken Theater Arts or have involvement in a theater program with the approval of the instructor. *This class may be taken for either English or Visual and Performing Arts Credit. **Students must inform the instructor of their preference** at the start of the class.*

Concert Band

Course Level: 012 / 010

Term: 1 credit per Spring Semester, 1 credit per B days (all year)
2 credit per Full Year (every day)

Credit: varies

Prerequisite: None

Grades: 9-12

Concert Band is offered to students in grades 9-12 who enjoy playing a woodwind, brass, string bass or percussion instrument. Band has the option to meet daily or every other day. Repertoire includes all genres of music from marches to the pops and romantic to modern. Students in Concert Band will have performances which include but are not limited to concerts, field trips, and parades.

Concert Band is broken into multiple sections that all meet during the same block. Though, due to scheduling, different days mean different Band rehearsals. Students who enroll in B days will rehearse in Concert Band. Students who enroll in the Spring Semester course will rehearse in Concert Band and Symphonic Band. Students who enroll in the Year Long section will rehearse in Concert Band, Symphonic Band, and Flex Band. Symphonic Band is a little smaller than Concert Band and is made up of mostly upperclassmen. Flex Band is a flexible instrumentation ensemble.

The following courses are offered as co-curricular activities and will adjust course credit for Concert Band to the **010 Honors level**.

Jazz Band is offered **by audition** to dedicated students in grades 9-12 who play a traditional Jazz Band instrument. This class rehearses outside the regular school schedule and students receive credit at the 010 level. Jazz Band covers a variety of styles, including swing, funk, rock and Latin. Students in Jazz Band will have several performances. Students in Jazz Band also participate in Concert Band or Concert Choir.

Marching Band is offered to dedicated students in grades 9-12 who play a wind instrument, drumline, or colorguard. This class rehearses outside the school day and students receive credit at the 010 level. Marching Band covers a variety of marching skills and covers Pep Band and Pop Music playing. Students in Marching Band will have several performances which include but are not limited to concerts, parades, pep band, and band shows. Students in Marching Band also participate in Concert Band or Concert Choir.

Concert Choir

Course Level: 012/010

Term: 1 credit per Spring Semester, 1 credit per A days (all year)
2 credit per Full Year (every day)

Credit: varies

Prerequisite: None

Grades: 9-12

Concert Choir is offered to students in grades 9-12 at varying levels of proficiency with no experience necessary. Each student has the opportunity to have choir daily or every other day. For students who have choir daily (especially suggested for those that are training for careers in the vocal arts) these students have the unique opportunity to participate in Concert Choir and also a second choir, **Chamber Choir**. The Chamber Choir is smaller by design and typically made up of students in grades 10-12 who are also in Concert Choir. Chamber Choir focuses on more advanced ensemble skills, literature and techniques. The repertoire for both choirs comes from inclusive and differentiated genres of music from all periods, cultures, origins and languages. These choirs focus on developing each student's unique voice through inclusive techniques, healthy self-care strategies and music theory. Students in either or both of these choirs have performances which include but are not limited to concerts, festivals, community performances and field trips. Both choirs have opportunities for student choice, leadership and social events, including collaboration with the band students. Students who are in Concert Choir can also enroll in Concert Band. The **Concert Choir** course is broken into three sections that all meet during the same block. Due to scheduling, different days mean different Choir rehearsals. Students who enroll in A days will be a part of Concert Choir. Students who enroll in the Spring Semester course will be in both Concert and Chamber Choirs. Students who enroll in the Full Year section have the opportunity to be a part of both choirs.

The following courses are offered as co-curricular activities and will adjust course credit for Concert Choir to the **010 Honors level**.

Select Choir is ConVal High School's premier vocal ensemble of **auditioned students** in grades 9-12. Select Choir meets after school for an hour and a half each week and performs the highest level of choral music out of our choral ensembles. As part of this ensemble, students are required to participate in after-school performances and additional collaborative projects. Participation in Select Choir raises the level of choir credit to the 010. Auditions are open to all students. Prior experience is suggested but is not required to audition.

History of Rock and Roll

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

Examine the birth of rock n roll music and track its evolution from the 50s through to modern day music making. This process will highlight specific artists, identify historical contexts, consider social influences, and identify musical connections between present and past. Students will learn concepts by listening and watching famous Rock and Roll musicians.

Creative Keyboarding (with AP Music Theory test option)Course Level: 012/010Term: SemesterCredit: 1Prerequisite: NoneGrades: 9-12

Would you like to learn how to create music? This course is for all students, even those with no prior music experience. It provides each student with individualized instruction that begins with their current skills and builds upon those skills throughout the course. Each student exercises choice in designing their goals, pacing, and objectives collaboratively with their teacher. Students new to keyboarding will learn how to read and create music through playing the keyboard, music theory, and (when they are ready) composing their own music. Students with prior or advanced knowledge learn keyboard technique, music reading, expression, more in-depth music theory, and composition that is individualized to meet their current skills and future goals and careers. Each class is designed to provide each student with individual and independent keyboard exploration and practice, student paced music theory, and one-on-one or small group instruction with their teacher as needed.

Introduction to GuitarCourse Level: 012Term: SemesterCredit: 1Prerequisite: NoneGrades: 9-12

Open to all students grades 9-12 who are interested in learning guitar. Students will practice picking melodies, strumming chords, and contrasting guitar styles. Notation will include traditional, tab, and shorthand. Lesson plans will include basic Music Theory. Students will have the opportunity to practice and rehearse as a group.

Music in MediaCourse Level: 012Term: SemesterCredit: 1Prerequisite: NoneGrades: 9-12

This class follows the development of music and sound in all formats of media- video game platforms, film, television, streaming and social channels. From the silent movie era, the development of radio and television, first gaming systems and social media channels to the great films, television, gaming, and social media composers of today. Students will explore the role and expression of music across all types of media, learn about the elements of music in media and composers, as well as develop a criteria for describing and assessing music in media. Students will take on the role of composer and create original music for selected scenes and characters from various films, television series, video games and social media platforms.

World Language Department

World languages provide opportunities for students to become global citizens. Communication, collaboration, and culture are all crucial in educating 21st century learners. Students will develop skills in presentational, interpretive, and interpersonal modes, by reading, writing, speaking, viewing, and listening in the target language.

Class	9	10	11	12	Prerequisite
German I	x	x	x	x	None
German II	x	x	x	x	C grade average in German I
German III		x	x	x	C grade average in German II
German IV		x	x	x	C grade average in German III
AP German			x	x	C grade average in German IV
Spanish I	x	x	x	x	None
Spanish II	x	x	x	x	C grade average in Spanish I
Spanish III		x	x	x	C grade average in Spanish II
Spanish IV		x	x	x	C grade average in Spanish III
AP Spanish			x	x	C grade average in Spanish IV

German I

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

Students can interpret, communicate and present basic information in familiar and everyday contexts by recognizing and using practiced or memorized words, phrases, and simple sentences in spoken or written texts.

German II

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: C grade average in German I

Grades: 9-12

Students will further develop communicative skills related to everyday and familiar topics. Students continue to expand their understanding of German-speaking countries by identifying and comparing cultural aspects. The emphasis is on vocabulary development and grammatical structures to develop the students' skills in listening, speaking, reading and writing.

German III

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: C grade average in German II

Grades: 10, 11, 12

This class is designed to introduce more complex grammatical structures and thematic vocabulary to further develop the four language skills of speaking, listening, reading and writing. Students will deepen their knowledge of German-speaking cultures and their own by comparing and contrasting products, practices, and perspectives with the goal of fostering effective and appropriate interactions with people from other cultural backgrounds.

German IVCourse Level: 012Term: SemesterCredit: 1Prerequisite: C grade average in German IIIGrades: 10, 11, 12

This class offers students the opportunity to refine their communication skills in speaking, listening, reading and writing, while improving self-expression and flexibility in the target language. Students will demonstrate increased control of more sophisticated grammatical concepts and additional thematic vocabulary. Students will continue to study the culture and customs of German-speaking people through comparing and contrasting products, practices, and perspectives. Students will develop a knowledge and appreciation of German history, literature, art, and music.

AP GermanCourse Level: 012Term: SemesterCredit: 1Prerequisite: C grade average in German IVGrades: 11, 12

This class offers students the opportunity to refine their communication skills in speaking, listening, reading and writing, while improving self-expression and flexibility in the target language. Students will demonstrate increased control of more sophisticated grammatical concepts and additional thematic vocabulary. Students will continue to study the culture and customs of German-speaking people through comparing and contrasting products, practices, and perspectives. Students will develop a knowledge and appreciation of German history, literature, art, and music.

Spanish ICourse Level: 012Term: SemesterCredit: 1Prerequisite: NoneGrades: 9-12

Students can interpret, communicate and present basic information in familiar and everyday contexts by recognizing and using practiced or memorized words, phrases, and simple sentences in spoken or written texts.

Spanish IICourse Level: 012Term: SemesterCredit: 1Prerequisite: C grade average in Spanish IGrades: 9-12

Students will further develop communicative skills related to everyday and familiar topics. Students continue to expand their understanding of Spanish-speaking countries by identifying and comparing cultural aspects. The emphasis is on vocabulary development and grammatical structures to develop the students' skills in listening, speaking, reading and writing.

Spanish IIICourse Level: 012Term: SemesterCredit: 1Prerequisite: C grade average in Spanish IIGrades: 10, 11, 12

This class is designed to introduce more complex grammatical structures and thematic vocabulary to further develop the four language skills of speaking, listening, reading and writing. Students will deepen their knowledge of Spanish-speaking cultures and their own by comparing and contrasting products, practices, and perspectives with the goal of fostering effective and appropriate interactions with people from other cultural backgrounds.

Spanish IVCourse Level: 012Term: SemesterCredit: 1Prerequisite: C grade average in Spanish IIIGrades: 10, 11, 12

This class offers students the opportunity to refine their communication skills in speaking, listening, reading and writing, while improving self-expression and flexibility in the target language. Students will demonstrate increased control of more sophisticated grammatical concepts and additional thematic vocabulary. Students will continue to study the culture and customs of Spanish-speaking people through comparing and contrasting products, practices, and perspectives. Students will develop a knowledge and appreciation of Hispanic history, literature, art, and music.

AP SpanishCourse Level: 012Term: SemesterCredit: 1Prerequisite: C grade average in Spanish IVGrades: 11, 12

This class follows the guidelines of the College Board® AP Spanish Language and Culture class and provides opportunities for students to demonstrate their proficiency in speaking, listening, reading and writing. When communicating, students in the AP Spanish Language and Culture class demonstrate an understanding of the culture(s), incorporate interdisciplinary topics (connections), make comparisons between the native language and the target language and between cultures (comparisons), and use the target language in real life settings (communities).



Region 14 Applied Technology Center

Career and Technical Education programs offer students the opportunity to explore different career pathways, to earn industry certifications that make them career ready, and to be better prepared for life after high school. CTE programs are project-based, hands-on learning that allow students to use industry-standard technology in exciting ways. Students interact with professionals in the field and problem solve their way to new solutions. Students enrolling in a CTE program class must fill out the application located at the end of the Program of Studies.

All CTE programs are competencies based. While each program has content specific competencies, all CTE programs state-wide share the following competencies:

Upon completion of their selected pathway program, all NH CTE students will:

- Use correct terminology, vocabulary and appropriate language to communicate effectively in the workplace
- Select and safely use appropriate tools, supplies, and equipment for a specific task or set of tasks.
- Employ effective time and project management strategies to complete work efficiently and proficiently.
- Apply math concepts, including measurement, operations, and higher mathematics to relevant applications and specific tasks.
- Demonstrate awareness strategies to safely work in a variety of workspaces and locations.
- Explore careers within the cluster to include developing individual career documents.

Class	9	10	11	12	Prerequisite
Career and Technical Education Programs					
Automotive Service Technology I		x	x	X	Application and interview required along with successful completion of Algebra I
Automotive Service Technology II			x	x	Automotive Service Technology I
Business & Personal Law		x	x	x	None
Business Management		x	x	x	None
Entrepreneurship		x	x	x	None
Principles of Marketing		x	x	x	None
Personal Finance		x	x	x	None

Related Elective	Introduction to Business				
Careers in Education I		x	x	x	Recommended: Human Growth & Development
Careers in Education II			x	x	Careers in Education I
Related Elective	Human Growth & Development				
Electronics & Microcontrollers (formerly Computer Networking I)		x	x	x	None
Router and Switching Networks (formerly Computer Networking II)		x	x	x	None
Software Programming and Game Design		x	x	x	None
Software Programming Using C++ (formerly Computer Programming & Software Development II)		x	x	x	None
Related Electives	Introduction to Technology and Robotics				
Fundamentals of Construction Trades		x	x	x	None
Construction Trades: Carpentry/Masonry		x	x	x	Fundamentals of Construction Trades
Construction Trades: Electrical/Plumbing		x	x	x	Fundamentals of Construction Trades
Digital Photography & Video Arts I		x	x	x	None
Digital Photography II		x	x	x	Digital Photography & Video Arts I
Video Arts II		x	x	x	Digital Photography & Video Arts I
Engineering Design I		x	x	x	C or better in Algebra I
Engineering Design II		x	x	x	Engineering Design I
Engineering Design III			x	x	Engineering Design II
Engineering Design IV			x	x	Engineering Design III and a C or better in Geometry and Algebra II
Related Electives	Introduction to Technology and Robotics				
Introduction to Firefighting		x	x	x	Medical Release
Emergency Medical Technician		x	x	x	Medical Release
Graphic Design I		x	x	x	None
Graphic Design II		x	x	x	Graphic Design I
Graphic Design III			x	x	Graphic Design II
Related Electives	Introduction to Design				
Manufacturing I		x	x	x	None
Manufacturing II		x	x	x	Manufacturing I

Manufacturing III			x	x	Manufacturing II
Related Elective	Woodworking				
Electives					
Human Growth and Development		x	x	x	None
Introduction to Business	x	x	x	x	None
Introduction to Design	x	x	x	x	None
Introduction to Technology	x	x	x	x	None
Licensed Nursing Assistant			x	x	LNA Health Careers Assessment and be 16 years old
Robotics	x	x	x	x	None
Woodworking	x	x	x	x	None

*Students need to be 18 within two years of completing the EMT classes in order to take the certification test.

Automotive Service Technology

Career Information: Graduates of the automotive technology program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- * Mechanic
- * Research & Development
- * Vehicle Salesperson
- * Auto Service Writer
- * PowerSports Technician
- * Vehicle Inspector
- * Automotive Parts Specialist

Automotive Service Technology I

Course Level: 012

Term: Full Year, 2 Blocks (class held at Mascenic)

Credits: 2

Prerequisite: [Application](#) and interview required along with successful completion of Algebra I

Grades: 10, 11, 12

In the first year of this two-year program, students will have the opportunity to learn skills needed to perform maintenance and light repair of the modern automobile. Students will develop their skills by working on customer and donated vehicles in a state-of-the-art facility featuring five bays, a parts room, lifts, computers for diagnostics, as well as a classroom computer lab for further study and research. An industry standard competency-based curriculum, certified by the Automotive Service Excellence Education Foundation (ASE) will be followed to provide first year students with the training to succeed in steering and suspension, electronics, brakes, state inspections and engine performance. Students need good reading, math, computer, mechanical and analytical skills to study technical manuals and solve automotive problems. This program is held at Mascenic Regional High School.

Automotive Service Technology II

Course Level: 010

Term: Full Year, 2 Blocks (class held at Mascenic)

Credits: 4

Prerequisite: Successful completion of Automotive I

Grades: 10, 11, 12

In year two, students work on more complex repairs and tasks including training in engine repair, drivetrain, air bag systems and charging/starting systems. An industry standard competency-based curriculum certified by the Automotive Service Excellence Education Foundation (ASE) will continue to

be followed providing Automotive II students with skill and development and practice in the essential service technician competencies expected in the automotive service industry. Students need good reading, math, computer, mechanical and analytical skills to study technical manuals and solve automotive problems. The program is held at Mascenic Regional High School.

Business/Commerce, General

Career Information: Graduates of the business program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- | | |
|---------------------------------|-----------------------------|
| * Chief Executive Officer (CEO) | * Accountant and/or Auditor |
| * Business Manager | * Credit Counselor |
| * Tax Preparer | * Insurance Underwriter |
| * Entrepreneur | |

Business and Personal Law

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

Students in this class will learn rights and responsibilities in everyday business and personal transactions. Subjects included are ethics and law, criminal law, problems in society, torts, the court system, trial procedures, contracts, consumer protection, employment contracts, and renting a place to live. The students will create and participate in a mock trial.

Entrepreneurship

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

This class is intended for any student interested in starting their own business. Students will be introduced to the fundamental processes of creating a new business. Students will assess the nature of entrepreneurship and each individual's opportunity to become an entrepreneur. Students will then develop a business plan, including a feasibility study, market analysis, business forms, site selection and layout, and examine issues pertinent to business management, including marketing, purchasing/inventory, production/distribution, operations/staffing, financing, and human resources. The students will participate in an industry trade show.

Business Management

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

Students will learn what it takes to manage a business in today's world. This class will focus on an introduction to management; ethics and social responsibility; businesses, workers, and the law; international business; decision-making skills; communication skills; motivation and leadership; managing conflict and stress; and managing change, culture, and diversity. Students in this class are responsible for inventory, sales, financial records, and promotion of the school store. This class is highly recommended for all students entering the field of business after high school.

Principles of Marketing

Course Level: 012

Term: Semester

Credits: 2

Prerequisite: None

Grades: 10, 11, 12

This class emphasizes basic marketing skills including product/service management, pricing, promotion, distribution, market research, and the interpersonal skills necessary to work successfully in the real world. Students will have the opportunity to develop leadership skills, career goals, and occupational skills through a real life opportunity working with Cougar apparel. Students in this class are responsible for inventory, sales, financial records, and promotion of the school store. This class is highly recommended for any student interested in studying marketing at the college level.

Personal Finance

Course Level: 012

Term: Semester

Credits: 2

Prerequisite: None

Grades: 10, 11, 12

This class will provide students with knowledge that is necessary for them to make decisions that affect their daily lives at present or in the very near future. Topics will include decision-making in terms of purchasing, developing a budget, understanding how to compare different types of loans, understanding the responsibility of how to use credit cards without incurring deep debt, managing an apartment or other living arrangements, maintaining a healthy lifestyle on a limited budget, and an introduction to making wise investment decisions.

Careers in Education

Career Information: Graduates of the careers in education program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- * School Counselor
- * Early Childhood Teacher
- * Occupational/Physical/Speech Therapist
- * School Resource Officer
- * PreK-12 or Postsecondary Educator or Administration
- * Career Counselor
- * Curriculum Specialist

Careers in Education I / ~ Running Start ~

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: None; Human Growth and Development is recommended.

Grades: 10, 11, 12

Students will divide their time between the high school classroom and practicum teaching in an early childhood center. This class will give students an overview of the history of early childhood education, including history, philosophy, and current issues that support learning. Students will learn how to plan safe, healthy, and nutritional early childhood environments. Topics include lesson planning, reflection, NH Early Learning Standards, National Association for the Education of Young Children (NAEYC) resources, developmentally appropriate expectations, creating and evaluating play in learning environments, small and whole group instruction, assessment tools, and observation. An overview of all developmental stages will be covered. The impact of the multiple and diverse influences of family, culture, and society on the child and the early childhood professional will be explored. Students will also have the opportunity to be a member of our career and technical student organization, Educators Rising. *Running Start Class: Dual credit option for this class is available.*

Careers in Education II / ~ Running Start ~

Course Level: 010

Term: Full Year

Credits: 2

Prerequisite: Careers in Education I

Grades: 10, 11, 12

Students will divide their time between the high school classroom and practicum teaching in an elementary and/or middle school classroom. This class will introduce students to classroom

structures that support research-based approaches for effective teaching. Tiered Support Systems and Universal Design for Learning (UDL) will be discussed as a general educational initiative that can serve the needs of all students. The roles of the family and school as partners will be developed as a critical technique to serve the needs of students. Philosophical, historical, legal, and social/cultural aspects of education in the United States and New Hampshire will be explored. Students will formulate a beginning philosophy of education. Students will participate in a service learning experience. Students will also have the opportunity to be a member of our career and technical student organization, Educators Rising. *Running Start Class: Dual credit option for this class is available.*

Computer & Information Technology

Career Information: Graduates of the computer & information technology program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- * Computer Systems Analyst
- * User Support Specialist
- * Web Developer
- * Software Developer
- * Network Architect
- * Game/Application Designer

Routing and Switching Networks* / ~ Running Start ~

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

* formerly Computer Networking II

Students will be introduced to the skills required to setup and maintain a home or small business network including such topics as connecting to the network; connecting through an Internet Service Provider; network addressing, including subnetting; implementing wireless technologies; network security; and network troubleshooting. Students will also experience network cable construction and testing using cable testers and tracers. Students will construct simple networks in a simulated environment as well as a real environment. Network troubleshooting issues will also be covered. Students continue the process of analyzing problems/bugs embedded in their network by following problem-solving techniques. *Running Start Class: Dual credit option for this class is available.*

Software Programming Using C++* / ~ Running Start ~

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

* formerly Computer Computer Programming & Software Development II

This course continues the idea of using programming and its constructs to solve problems. The student's understanding of variables, arrays, "if, if else, loops," and functions will be reinforced, while introducing the student to object-oriented languages such as C++ or Java. Additionally, the student will be introduced to pointers and structures and selected preprocessor directives as well as bit manipulations. *Running Start Class: Dual credit option for this class is available.*

Software Programming & Game Design/ ~ Running Start ~

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

This course allows students to explore all aspects of the exciting world of game design. Students have access to professional industry software and devices. Throughout the course, students will be creating games on the Unity Game Engines, individually and in teams. Students will engage in hands-on

learning of the foundational elements of programming, digital content creation programs, and team game production and build games while diving deeper into a chosen pathway (game programmer, character animator, level designer, 3D world builder, 2D artist, etc.). The competencies learned here are in high demand in multiple industries, such as entertainment, engineering, manufacturing, research and development, and education. *Running Start Class: Dual credit option for this class is available.*

Electronics and Microcontrollers

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

Students will build circuits and experiment with various electronic device components including resistors, capacitors, inductors, and diodes. AC and DC circuits, power supplies, and related electrical theories will be covered. Using the Parallax Microcontroller curriculum, students will learn to read electrical schematics and wire the circuits. Students will then be able to develop the software to control the microcontroller in order to manipulate the circuits.

Construction Trades, General

Career Information: Graduates of the construction trades program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

* Brick Mason

* HVAC Technician

* Electrician

* Home Inspector

* Plumber

* Carpenter

Fundamentals of Construction Trades

Course Level: 012

Term: Semester (90 minute class at Conant)

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

This hands-on course will serve as the foundation of the Construction Trades Certification Program. Learners will gain expertise in using hand tools and shop machines; applying math, science and literacy skills; and practicing industry professional techniques. Learners will implement OSHA safety measures as they gain and apply technical knowledge and professional skills in the building, inspecting, and maintaining of structures. *This program is held at Conant High School.*

Construction Trades: Carpentry/Masonry

Course Level: 012

Term: Semester (90 minute class at Conant)

Credit: 1

Prerequisite: Completion of Fundamentals of Construction Trades

Grades: 10, 11, 12

In the carpentry portion of the class, learners will increase their carpentry knowledge and skills as they work with various types of hardwoods, softwoods, fasteners, anchors, and adhesive. Lessons will focus on how to interpret structural and architectural drawing and specification and how to adhere to building codes. Instruction and hands-on practice will focus on laying out and framing flooring, walls, ceilings, roofs, stairs, and building envelopes. In the masonry portion of the class, instruction will focus on masonry materials, methods, tools, equipment, and installation techniques. Learners will mix mortar by hand, lay masonry units, and install concrete masonry units and reinforcements. For the entire class, learners will be required to wear proper PPE and follow all safety practices and procedures.

Construction Trades: Electrical/Plumbing**Course Level:** 012**Term:** Semester (90 minute class at Conant)**Credit:** 1**Prerequisite:** Completion of Fundamentals of Construction Trades**Grades:** 10, 11, 12

The electrical and plumbing module will provide learners with an introduction to these essential trades. Instruction will focus on occupational safety, tools, materials, techniques, problem-solving strategies for on the job situations, and coordination with other trades in the construction industry.

Film/Video and Photographic Arts, Other

Career Information: Graduates of the digital photo & video program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- | | |
|---------------------------------|--------------------------|
| * Wedding/Portrait Photographer | * Advertising Consultant |
| * Videographer | * Drone Photographer |
| * Film/Photograph Editor | * Creative Director |

Digital Photography & Video Arts I**Course Level:** 010**Term:** Semester**Credit:** 1**Prerequisite:** None**Grades:** 10, 11, 12

During this class, students will investigate the basic technical and artistic aspects of both photography and video art. They will work individually and in collaboration with their peers to develop public speaking skills, learn about famous photographers and critique work. Students will analyze lighting techniques for still photography and formulate scripts and storyboards for films. They will create a blog and website while taking part in both local and national competitions for both photography and film. Through this class, students will learn to shoot manually and be introduced to professional Adobe editing software including Lightroom and Premiere. This class is designed to be hands-on and project-based. All equipment is provided for the student, including a camera, tripod, and laptop. The ATC laptop will have Adobe Software installed that includes Lightroom, Photoshop, Premiere, and Illustrator. *Running Start Class: Dual credit option for this class is available.*

Digital Photography II**Course Level:** 010**Term:** Semester**Credit:** 1**Prerequisite:** Digital Photography & Video Arts I**Grades:** 10, 11, 12

For this class, students will utilize what they have learned in Digital Photography & Video Arts I to comprehensively investigate the field of photography. Students will be responsible for generating and critiquing images each week, as well as learning about photography techniques such as photojournalism, commercial photography, fine art photography, and food photography. Students will participate in a photography-based service learning project. In addition to planning photo shoots and learning to direct models, students will connect their own work with that of professionals in the photography field through a research-based presentation project. This class will give students a clear understanding of the professional field of photography. All equipment is provided for the student, including a camera, tripod, and laptop. The ATC laptop will have Adobe Software installed that includes Lightroom, Photoshop, Premiere, and Illustrator. *Running Start Class: Dual credit option for this class is available.*

Digital Video Arts II

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Digital Photography & Video Arts I

Grades: 10, 11, 12

For this class, students will apply concepts learned in Digital Photography & Video Arts I to comprehensively investigate the field of Video Arts. Students will analyze films, explore aesthetic trends in cinema, write screenplays, understand the nature and process of film production, and work collaboratively with their peers to produce a variety of short films. Ultimately, each student in Video Arts II will be responsible for creating a film to submit to the New Hampshire High School Short Film Festival, a state-wide film competition for students. The purpose of this class is to provide a project-based visual arts program which will provide students the technical instruction, artistic background, and practical experience necessary for aspiring filmmakers. All equipment is provided for the student, including a camera, tripod, and laptop. The ATC laptop will have Adobe Software installed that includes Lightroom, Photoshop, Premiere, and Illustrator.

Pre-Engineering

Career Information: Graduates of the pre-engineering program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- | | |
|-------------------------|----------------------------|
| * Architect | * Environmental Technology |
| * Surveyor/Cartographer | * Research & Development |
| * Civil Technology | * Chemical Engineer |
| * Mechanical Technology | * Technician |

Engineering Design I / ~ Running Start ~

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: C or better in Algebra I

Grades: 10, 11, 12

Engineering I is the first of four classes to complete the engineering program. This class provides the basic concepts and practices of blueprint reading and technical drawing. Topics covered are: aeronautical, architectural, mechanical, electrical and civil engineering. Applications include SolidWorks, 3D printing, CNC machines, electrical trainers, rockets and other materials needed for simulations and models. Running Start Class: Dual credit option for this class is available.

Engineering Design II / ~ Running Start ~

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: Engineering I

Grades: 10, 11, 12

This class is the second of four classes that can be taken in the engineering discipline. Students focus on the design, development and production of useful products. The use of computer software from Engineering Design I will be re-emphasized as well as CNC, 3D printing, Arduino electronic circuits, laser engraving technology and Festo Mechatronics trainer. Student's work may entail the following; collaboration with local businesses, presentations beyond the classroom, and submitting work for local or national competitions. Engineering content includes aerodynamics, architectural, mechanical, electrical, and civil engineering. Skills and knowledge learned will provide the basic essentials for studies in mechatronics. Class completers will have the knowledge of design basics, be able to implement solutions for problems in an engineering environment, and have experience in engineering teams. Electronic fundamentals and circuit design are emphasized in this class. *Running Start Class: Dual credit option for this class is available.*

Course Level: 010

Engineering Design III / ~ Running Start ~

Term: Semester

Credit: 1

Prerequisite: Engineering Design II

Grades: 10, 11, 12

This class is the third of four classes in the program and is focused on the application of process to an outcome; Computer Integrated Manufacturing will be used throughout as will be applications in 3D printing; CNC machine setup; laser cutting and engraving for the purpose of prototyping; and machine set up. Students will be provided the opportunity to enter the American Institute of Architecture Competition a New Hampshire state design contest. Projects are chosen based on individual preferences that show skill and competency attainment. Projects are aligned with real-world problems and are produced to examine feasibility. When possible, clients will be integrated into the classroom and will work with students. This class builds on the concepts learned in Engineering Design and Manufacturing I & II. Students will be preparing for a SolidWorks Associate level exam during this class. Heavy emphasis is placed on engineering teams. Students will prepare an interactive web page representing the area of engineering competency based on projects, which will be maintained and updated to represent a visual catalog of competency and skill attainment for the use of college credit or employment opportunities. *Running Start Class: Dual credit option for this class is available.*

Engineering Design IV / ~ Running Start ~

Course Level: 010

Term: Semester

Credit: 1

Prerequisites: C or better in Geometry and Algebra II **and** Engineering Design III

Grades: 10, 11, 12

This problem-based learning class covers the knowledge and skills needed to explore the engineering design process. Individual projects, team projects, and laboratory exercises will be used to continually hone students' interpersonal skills, creative abilities, and understanding of the design process. Everyday products will be examined from historical, societal, design, safety, and manufacturing perspectives. Topics include ideation, sketching, design constraints, solid modeling, decision making, statistical quality control, manufacturing methods, and engineering analysis. Students will develop an appreciation for good design as well as the ability to communicate design ideas via 3D modeling and written and oral reports. There are lectures, demonstrations, and a series of lab exercises designed to reinforce what students have learned. An opportunity for students to take the Solidworks exam (CSWA) is built in as well as student participation in the AIANH architectural contest. This class uses the latest version of the Solidworks design software, as well as leading architectural software. *Running Start Class: Dual credit option for this class is available.*

Fire Science/Fire Fighting

Career Information: Graduates of the fire science program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- * Firefighter
- * Fire Inspector
- * Emergency Medical Technician
- * Forest Fire Prevention
- * Fire Investigator

Introduction to Firefighting / ~ Articulation Agreement ~

Course Level: 010

Term: Semester (This class is offered in semester 1 only.)

Credits: 2

Prerequisite: Interview with program instructor and medical release required

Grades: 10, 11, 12

IMPORTANT NOTE: Participation in this class requires the student to be engaged in coursework beyond the traditional school day. Students enrolled in this class should plan to take the late bus or

arrange other transportation home. Additionally, participation requires that students have the stamina and physical ability to work in difficult conditions for several consecutive 30-minute durations while wearing up to 75 pounds of protective gear. Per the NHFA Fire Training Bureau, if class enrollment drops below 6 students, the class must be canceled.

The Firefighter I certificate program being offered at the Region 14 ATC is the same program offered at The New Hampshire Fire and EMS Academy (NHFA). The program at the Region 14 ATC will be following all the rules and regulations set forth by NHFA, as well as allow students to meet their credit equivalence for more traditional courses. Completion of the program will give students high school credit and their Level I Firefighting Certification, valid in all 37 Pro-Board states in the US as well as several other countries. If a student passes the entire program before the age of 18, a certificate of completion will be issued by NHFA, which is simply exchanged for their Firefighter I certificate when age 18 is reached. The program will cover 24 modules, each requiring a passing quiz grade. Each module, although entry level, will test students in every aspect of the firefighting field (claustrophobia, heights, disorientation, and exertion). The program will give each student the point of view from firefighters. Every instructor is a state certified fire instructor and brings years of experience to the education process. This is a blended class with online work as well as in class work and runs from 1:00p.m.- 4:00 p.m. at ConVal High School and other off-campus locations. Mount Wachusett Class: Dual credit option for this class is available.

Emergency Medical Technician (EMT) / ~ Articulation Agreement ~

Course Level: 010

Term: Semester (This class is offered in semester 2 only.)

Credits: 2

Prerequisite: Interview with program instructor

Grades: 10, 11, 12

IMPORTANT NOTE: Participation in this class requires the student to be engaged in coursework beyond the traditional school day. Ride-a-long time is required on an actual working ambulance service. Students enrolled in this class should plan to take the late bus or arrange other transportation home. A student Medical Release is required by the New Hampshire Department of Safety, Division of Fire Standards and Training and Emergency Medical Services. Students should be prepared to wear Personal Protective Equipment (PPE) for extended periods of time.

Emergency Medical Services (EMS) offers an exciting and challenging healthcare career for individuals interested in providing emergency care in the prehospital setting. EMT licensure qualifies the student for an entry-level position as an emergency care provider with municipal and private ambulance services as well as some hospital emergency departments. The growing recognition of the EMT as a professional member of the health-care team will expand career opportunities for graduates. EMTs are the cornerstone of EMS in the United States. The curriculum includes airway management, oxygen therapy, patient assessment, medical emergencies, traumatic injuries, special patient populations, and EMS operations. Students must be age 18 by the end of the program to be eligible to take the final examination. This class runs from 1:00p.m.- 4:00 p.m. at ConVal High School and other off-campus locations. Mount Wachusett Class: Dual credit option for this class is available.

Graphic Design

Career Information: Graduates of the graphic design program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- * Advertising and Marketing
- * Production Artist
- * Art Director
- * User Experience or Interface Designer
- * Creative Director
- * Multimedia Artist

Graphic Design I

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None; Introduction to Design is recommended.

Grades: 9-12

Students will learn Adobe Photoshop, Illustrator and InDesign. Projects include website design, logos, phone apps, and more. Students will progress from basic drawing techniques to completed designs. Presentations of final projects take the place of a final exam. Meets the graduation requirement in Arts Education.

Graphic Design II

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Graphic Design I

Grades: 10, 11, 12

Students will expand on what they learned in Graphic Design 1 to create more comprehensive designs. Projects include magazine design, posters, websites and a bit of animation. Community-based projects allow the students to work in real world situations. A student-developed portfolio is used as an end of class assessment in place of a final exam. This class meets the graduation requirement in Arts Education.

Graphic Design III

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: Graphic Design II

Grades: 9-12

This class serves as the capstone experience for the graphic design program. Students will focus on the completion of a graphic design portfolio, which will be showcased from a student-designed website. Students will also be involved with community-based projects and take time to explore special areas of interest within the graphic design industry. A student-developed portfolio is used as an end of class assessment in place of a final exam. Meets the graduation requirement in Arts Education.

Manufacturing Technology/Technician

Career Information: Graduates of the manufacturing technology program may enter into multiple high-wage, high-skill, high-demand career paths, such as:

- * CNC Machine Operator
- * Manufacturing Engineer
- * Production Line Operations
- * Quality Control Technician
- * Assembly Team Leader
- * Machining
- * Welding

Manufacturing I

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

This hands-on, project-based class is designed for students who are interested in exploring the many opportunities knowledge of basic manufacturing principles will make available to them. While students will primarily be practicing manufacturing techniques through using wood as a medium, they will also have the opportunity to 3D print using a variety of plastics. In addition, students will be given the option of taking the OSHA 10 exam; students who earn this industry certification will find it helpful in getting both part- and full-time employment.

Manufacturing II

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Manufacturing Systems I or Advanced Manufacturing Systems I

Grades: 10, 11, 12

Students in this class will continue to explore the manufacturing principles they learned in Manufacturing Through Wood I while also learning how to use a variety of milling and calculated numeric control (CNC) machines. Focus will be placed on lean manufacturing, which emphasizes streamlining processes and reducing waste. Students will work with local industry leads in coming up with solutions to real-world problems.

Manufacturing III or Internship / ~ Running Start ~

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: Manufacturing II

Grades: 10, 11, 12

Students in the third class of this sequence can choose between an internship or welding instruction. Students will further enhance their skills through a work-based learning internship with a local manufacturer. Under supervision of the Region 14 ATC teacher, students may combine classroom learning with work experience. Students may extend the internship for additional credit. Students who elect the welding option will study at Phaze Welding Technology Center to learn the basics of stick, tig, and mig welding with the opportunity to test and earn welding certification. *Running Start Class: Dual credit option for this class is available.*

ATC Electives

Introduction To Design

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

Students will be introduced to the elements and principles of effective design. In this course students will learn how to create a variety of designs including, font use, text formatting, vector graphics, raster images, and multimedia; and how to appropriately size images for printing and the screen. Meets the graduation requirement in Arts Education and/or Information & Communication Technology.

Introduction To Technology

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

Students will explore engineering concepts through [VEX Robotics](#) and platforms sponsored by VEX. Skills will be reinforced through hands-on applications as well as computer-based practice. Emphasis will be placed on soft skill attainment and practice; applications in software and computer management systems; and use of the Google Suite. Areas of content will include units offered in the

engineering, software development and programming, and computer networking programs as well as robotics.

Introduction To Business

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

Introduction to Business will introduce students to the world of business and help prepare them for their roles as consumers, workers, and citizens. This class serves as a background for other business classes students can take in high school, prepares students for future employment, and helps students effectively perform their responsibilities as citizens. Students will participate in a simulation where they own/operate their own business and handle all the management tasks for the business.

Robotics

Course Level: 012

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

This class will introduce students to the basics of designing, building and testing their own robot to accomplish specific challenges. Students will learn about and implement various types of sensors during this process. Students will also develop specific software to control each robot they construct. This class will provide students with the experience of integrating hardware and software to accomplish specific tasks.

Licensed Nursing Assistant (LNA)

Course Level: 012

Term: Quarter (This class will be offered quarters 1 & 4 only for SY22-23.)

Credit: 1

Prerequisite: LNA Health Careers screening assessment; see the ATC director for admission information. Students must be 16 years of age or older.

Grades: 11, 12

Students learn about caring for patients of all ages, how to check vital signs, maintaining a clean and safe working environment, correctly using medical terminology and demonstrating good health care skills. The LNA program involves both classroom instruction and practical application in local clinical settings. Students will have the opportunity to take the state-licensing exam that if passed qualifies the individual for employment as a Licensed Nursing Assistant.

This 9-week training program is taught by personnel from LNA Health Careers and includes off-campus clinical experience. The first six weeks of the **class runs from 1:00p.m.-5:00 p.m.** at ConVal High School. During the last three weeks of the class, students will be engaged in clinical experiences at off-site locations. Students are required to provide their own transportation to and from class and to and from the clinical sites. **During the clinical rotations, students must plan on working from 3:00p.m.-8:30p.m.** There is a 60-hour clinical requirement to satisfactorily complete the LNA class. The LNA certificate is awarded after completion of the NH State Certification Exam. Students enrolled in this course are required to be vaccinated and complete a criminal background check.

Woodworking

Course Level: 123

Term: Semester

Credit: 1

Prerequisite: None

Grades: 9-12

In this beginning woodworking class, students will be introduced to the proper and safe use of hand tools, as well as portable and stationary power equipment. Safety, material processing, project layout, design and fabrication will be emphasized. Individual projects will be produced and finished after required projects are completed. This class serves as an excellent introduction to the Construction Trades or Manufacturing programs.

Human Growth and Development / ~ Running Start ~

Course Level: 010

Term: Semester

Credit: 1

Prerequisite: None

Grades: 10, 11, 12

This class provides a study of human growth and development from prenatal development through adolescence. The characteristics, patterns, and theories of development in the areas of physical/motor, emotional, social, language, and cognitive development are covered. The complex and diverse influences of culture, environment, and individual needs are considered as the young child is studied in relationship to family, school, and community. This class is appropriate for anyone who is considering any occupation dealing with children and adolescents but is particularly recommended for students considering Careers in Education I and Careers in Education II. *Running Start Class: Dual credit option for this class is available.*

Internship

Course Level: 123

Term: Semester

Credit/Term: .5/quarter or 1/semester

Prerequisite: Student must be a junior or senior

Grades: 11, 12

Students may also wish to experience the world of work first-hand by becoming an intern at a local business. While internships can be used in a variety of ways, they work best when they are the capstone or culminating event in a student's high school course of study. For example, a student who is interested in pursuing a career as a dental hygienist should take all the appropriate science and health occupations classes before becoming an intern at a local dental office. This way, the student is able to have the best possible experience as an intern while the local business gains the benefit of working with a student truly interested in the profession. Internship is assessed on a Pass/Fail basis.



Region 14 Applied Technology Center
184 Hancock Road
Peterborough, NH 03458
603-924-3869 x3010

SY 2023-2024 Student Application

Applications are due by March 17, 2023 to Jennifer Kiley, CTE Director, jkiley@conval.edu

Region 14 Applied Technology Center programs are open to students in grades 10-12. This application is intended for students who are enrolling in the first course in a program sequence. No student will be enrolled in a CTE program class as a first time CTE student without completing this application.

Legal Student Name (Last, First, MI): _____

Preferred Student Name: _____

Street Address: _____

Town / ZIP: _____

Student Cell Phone Number: _____

Date of Birth: _____ Legal Gender: _____

Student Email: _____ Year of Graduation: _____

Parent/Guardian Name (Last, First): _____

Parent/Guardian Phone Number: _____ Parent/Guardian Email: _____

Race/Ethnic Origin # _____

1-African American 2-Asian American 3-Black 4-Hispanic 5-White 6-Hawaiian/Pacific Islander

Have you ever taken a CTE program course before? YES / NO If yes, which course?

Which CTE program are you interested in enrolling in? Please mark your first and second choice, if applicable.

- | | |
|--|--|
| <input type="checkbox"/> Automotive Technician (at Mascenic; a separate application is required.) | <input type="checkbox"/> Engineering |
| <input type="checkbox"/> Business | <input type="checkbox"/> Firefighting/EMT |
| <input type="checkbox"/> Careers in Education | <input type="checkbox"/> Graphic Design |
| <input type="checkbox"/> Construction Trades (at Conant) | <input type="checkbox"/> Computer & Information Technology |
| <input type="checkbox"/> Digital Photo & Video | <input type="checkbox"/> Manufacturing |

Mandatory: Please attach a separate sheet briefly explaining what your career plans are, how your chosen program will help with your career plans, and why you would be a good candidate for this program.

Agreements

- Safety
 - My student will have the opportunity to use various tools and equipment during his/her/their program. Appropriate instruction in the operation of these tools and equipment is given, and close supervision is maintained at all times. Although every precaution is taken to prevent accidents, I understand that a certain risk is involved due to the nature of the experience, the age of the student, and the learning environment. Individual teachers may have their own safety contracts specific to their program.
- Commitment
 - I understand that when I, as a student, enroll in a CTE program, I am making a commitment. It is my responsibility to read the program and course description in the Program of Studies and ask any questions I have during my interview with the program instructor and the CTE Director. If I determine in the first 5 class meetings that the program is not a good fit, I should speak to the program instructor about dropping the class prior to speaking with my school counselor. Many of our programs have waitlists, so if you decide a program is not for you, please let someone else have the option.

Student Signature: _____

Date: _____

Parent/Guardian Signature: _____

Date: _____