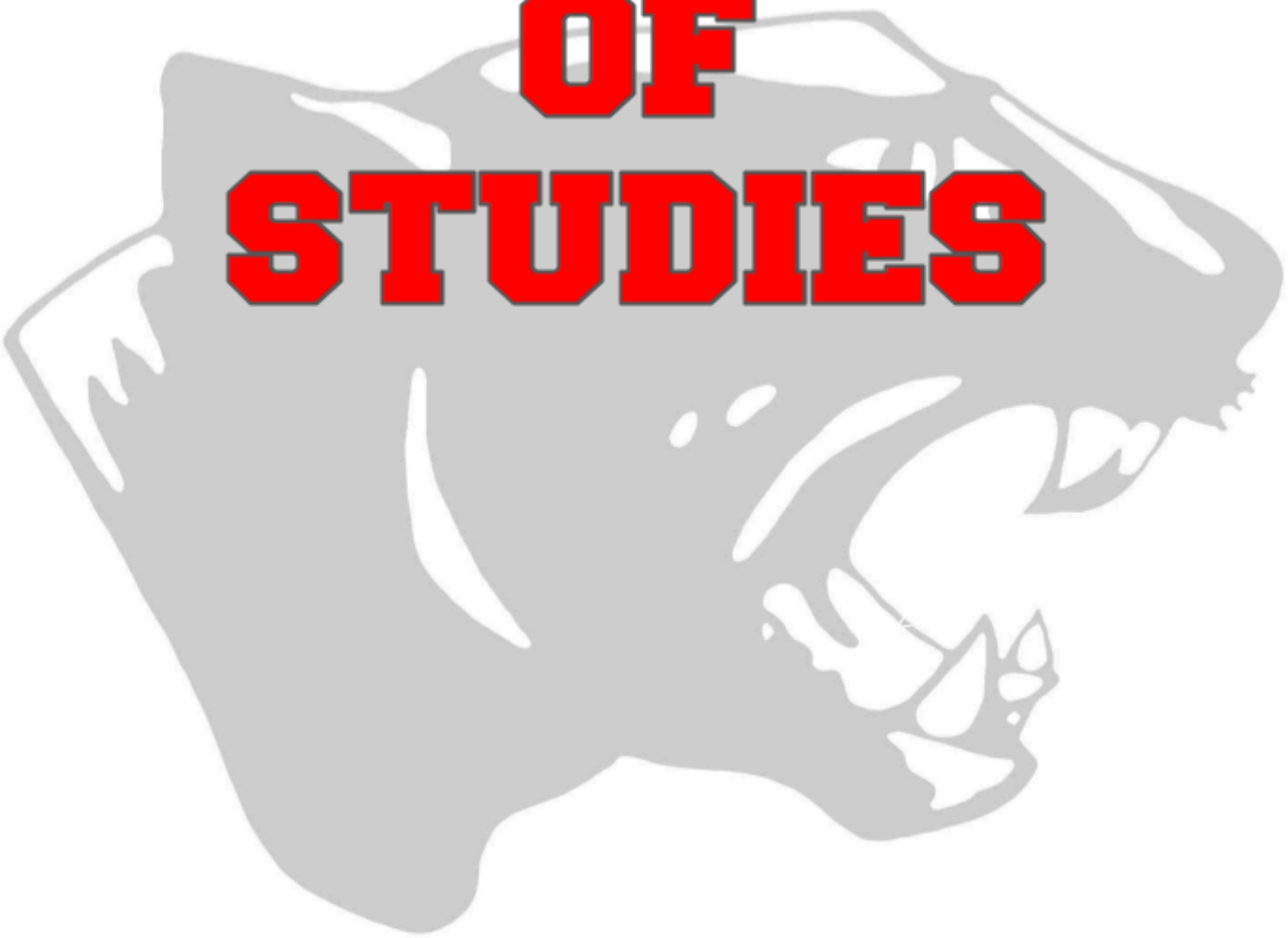
PROGRAM OF STUDIES



2025-2026

PITTSFIELD MIDDLE HIGH SCHOOL

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LETTER FROM ASSISTANT PRINCIPAL

February 2025

Dear Pittsfield Middle High School Students and Families,

This Program of Studies contains information to provide students and parents with knowledge pertaining to school courses, programs, and graduation requirements. This catalog is intended to answer questions that may arise regarding these areas and to provide necessary material to make informed decisions in relation to courses, programs, and opportunities. It is important to carefully read and comprehend course sequence and requirements for graduation. Students are encouraged to collaborate with Advisors, Counselors, or Administrators with questions or concerns regarding course selection. We encourage families to inform educational personnel of special situations or circumstances in order to obtain assistance to ensure student success.

Considerations during the planning process:

- What are the requirements for graduation? Look over the 4 year plan.
- What do I want to do after high school, and what post high school program do I need to get there?
- How will the courses I choose this year affect courses I may want to take in the future?

Most colleges require students whose high school transcript includes four years of English and mathematics, at least three credits of science and social studies, and at least two credits of the same world language. Additionally, they look for well-rounded students who are involved in various co-curricular and extracurricular activities. It is important to distinguish the difference between selecting courses that fulfill only the minimum requirements for a PMHS diploma as opposed to taking advantage of courses that can help you to further your post-secondary education and life goals.

Course competencies are included below each course description in order to inform students and families about the course expectations. The course competencies are critical for students to understand in order to acquire the knowledge and skills that are expected based upon state standards. Students must demonstrate mastery in all competencies to receive credit for each course.

Please also review classes that offer dual enrollment for both high school and college credit. Additional dual enrollment classes are available through *Early College* online courses and *Early College on a College Campus* offered through the Community College System of New Hampshire (CCSNH). This program includes the Virtual Learning Academy Charter School (VLACS), as well as updated information on new opportunities for students at Concord Regional Technical Center (CRTC).

On behalf of the Guidance Department, we encourage you to utilize every opportunity that PMHS has to offer. It is our mission to help you succeed by preparing you for life after high school. Best wishes for a successful and productive 2025-26 school year!

Sincerely, Melissa Brown, Assistant Principal and Director of Guidance

TABLE OF CONTENTS

Letter From the Assistant Principal……1

Table of Contents……2

Pittsfield School District Mission and Vision……3

Graduation Requirements and Diploma Types……4

Suggested Course Sequence……6

Post-Secondary Education……9

Testing……10

Academic Programs……10

Academic Information……12

Course Information……15

Parent Questions and Concerns……18

COURSE DESCRIPTIONS:

Advisory……19

Business/Information & Communication Technologies……19

English……22

Fine Arts Instruction

- **Art……25**
- **Music……29**

Health and Wellness Education

- **Health……30**
- **Family and Consumer Sciences……30**
- **Physical Education……31**

Library Media……33

Mathematics……34

Science……39

Social Studies……46

World Language ……50

Other Courses……50

Driver Education……50

Statement of Non-Discrimination ……51

Concord Regional Technical Center Course Descriptions……52

Pittsfield School District

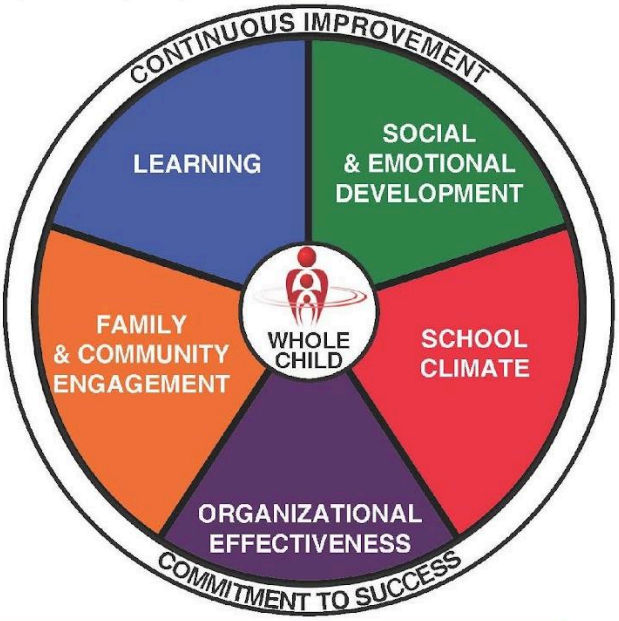
VISION:

We are a public school district that graduates engaged learners in preparation for confident and competent citizenship.

MISSION:

We seek to help our learners become actively engaged in their learning through practices that:

- Demonstrate acceptance and respect of individual differences (respect)
- Support all learners (equity)
- Prioritize active, hands-on, real-world transferable learning experiences (authenticity)
- Provide options for goal achievement (personalization)
- Partner with families and community (collaboration)
- Recognize the necessity of continuous improvement (high standards)
- Maximize available resources (prudence)
- Celebrate success (recognition)



LEARNING	As actively engaged owners of their learning, our students are fully supported in their development of knowledge, skills, and talents necessary for post-secondary success in families, communities, and workplaces.
SOCIAL & EMOTIONAL DEVELOPMENT	Our students are provided with readily accessible supports for social and emotional development that enhance their current school experiences and prepare them for future success.
SCHOOL CLIMATE	All members of our school community feel safe, respected, and valued within a positive, friendly learning environment.
ORGANIZATIONAL EFFECTIVENESS	Systems are well-defined, highly efficient, and maximized by the school community in support of rigorous student learning.
FAMILY & COMMUNITY ENGAGEMENT	The district is committed to creating and sustaining school and district cultures that welcome, invite, and promote family and community partnerships to the benefit of student learning.

GRADUATION REQUIREMENTS & DIPLOMA TYPES

DIPLOMA TYPES: Pittsfield Middle High School offers two diploma types. The PMHS diploma requires 21.25 credits, including community service. The district diploma requires 20 credits and reflects the courses mandated by the State of New Hampshire Department of Education. The major differences between the PMHS diploma and the district diploma are that the district diploma does not require a third year of science or community service hours.

PMHS Graduation Requirements

Credits	Curriculum Area	Prescribed Courses
4	English/Language Arts	English 9, 10, 11, and 12*
3	Mathematics***	Algebra, Statistics, and 1.5 Additional Math Credits*
3	Science	Biology, Physical Science, and 1 Additional Science Credit
3	Social Studies	World History, Economics, US History, American Government
1	Physical Education	Physical Education, Lifetime Fitness Activities, IPEP
0.5	Fine Arts	Band, Chorus, Principles of Art & Design
0.5	Health	Health
0.5	Financial Literacy	Personal Finance
0.5	Information & Communication Technology (ICT)**	Desktop Publishing, Digital Art, Yearbook
5	Electives	Credits from any of the offered courses
0.25	Community Service Hours	40 hours required
21.25	**TOTAL CREDITS REQUIRED FOR GRADUATION**	

*****See specified Math-Related Courses (noted MRC). Students are required by NH state law to be enrolled in a Mathematics or Math-Related course each year they are in high school. Certain CRTC courses are approved Math-Related Courses (MRC). Students are also required to pass the Civics exam.**

*Early College (dual enrollment) courses are available for English, Math, and Social Studies.

**Graphic Design and Computer Engineering offered at the Concord Regional Technical Center are accepted ICT courses.

State Diploma Requirements

Credits	Curriculum Area	Prescribed Courses
4	English/Language Arts	English 9, 10, 11*, and 12*
3	Mathematics***	Algebra, Statistics, and 1.5 Additional Math Credits*
2	Science	Biology, Intro to Physics, and Intro to Chemistry & Waves
2.5	Social Studies**	World History, Economics, US History, American Government
1	Physical Education	Physical Education, Lifetime Fitness Activities, IPEP
0.5	Fine Arts	Band, Chorus, Principles of Art & Design
0.5	Health	Health
0.5	Financial Literacy	Personal Finance
0.5	Information & Communication Technology (ICT)**	Desktop Publishing, Digital Art, Yearbook
5.5	Electives	Credits from any of the offered courses
20	**TOTAL CREDITS REQUIRED FOR GRADUATION**	

*****See specified Math-Related Courses (noted MRC). Students are required by NH state law to be enrolled in a Mathematics or Math-Related course each year they are in high school. Certain CRTC courses are approved Math-Related Courses (MRC).**

**** .5 credit of World History, .5 credit Economics, 1 credit of US History, .5 credit of American Government, and passing the Civics exam for State Diploma.**

*Early College (dual enrollment) courses are available for English, Math, and Social Studies.

**Graphic Design and Computer Engineering offered at the Concord Regional Technical Center are accepted ICT courses.

SUGGESTED COURSE SEQUENCE: STANDARD

GRADE 9		GRADE 10	
Credits	Courses	Credits	Courses
1	English 9	1	English 10
1	Math Foundations, Algebra I, Geometry, Algebra II	1	Algebra I, Geometry, Algebra II
1	Biology	1	Physical Science
1	World History	0.5	Economics
0.5	Physical Education	0.5	Physical Education
0.5	Health	0.5	Fine Arts
0.5	Information & Communication Technologies (ICT)	0.5	Open Elective
GRADE 11		**GRADE 12**	
Credits	Courses	Credits	Courses
1	English 11	1	English 12
1	Algebra II, Intro to Statistics, College Algebra or Math-Related Course	1	Practical Math, Algebra II, Intro to Data Analysis , College Algebra, or Math-Related Course
1	Chemistry OR (2) .5 credit science electives	0.5	American Government
1	US History	2	Open Elective
0.5	Personal Finance	0.25	Community Service Hours
1.5	Open Elective		

NOTE: This is a suggested guideline; scheduling conflicts may not allow for all students to follow the exact program.

SUGGESTED COURSE SEQUENCE: COLLEGE PREP & NH SCHOLARS

GRADE 9		GRADE 10	
Credit	Courses	Credit	Courses
1	English 9	1	English 10
1	Algebra I, Geometry, Algebra II	1	Geometry, Algebra II
1	Biology	1	Intro to Physics, Intro to Chemistry & Waves
1	World History	0.5	Economics
0.5	Physical Education	0.5	Physical Education
0.5	Health	1	World Language II*
1	World Language*	0.5	Fine Arts
		0.5	Information & Communication Technologies (ICT)
GRADE 11		**GRADE 12**	
Credits	Courses	Credits	Courses
1	English 11	1	English 12, Composition(EC), Intro to Literature(EC)
1	Algebra II, College Algebra (EC), Intro to Statistics(EC)	1	Algebra II, Intro to Data Analysis, College Algebra (EC), Intro to Statistics(EC)
1	Chemistry	1	Physics
1	US History	0.5	American Government
1	World Language III*	0.5	Psychology (EC)
1	Open Elective	1.5	Open Elective
0.5	Personal Finance	0.25	Community Service

*Students have the option to take a World Language through Virtual Learning Charter School if desired.
This guideline indicates the general course requirements for most four-year colleges. Whereas college requirements vary, it is imperative to review each school for specific course requirements, minimum GPA and SAT scores.

For specific NH Scholars requirements, review the NH Scholars program planner

NOTE: This is a suggested guideline; scheduling conflicts may not allow for all students to follow the exact program.

SUGGESTED COURSE SEQUENCE: CONCORD REGIONAL TECHNICAL CENTER

GRADE 9		GRADE 10	
Credits	Courses	Credits	Courses
1	English 9	1	English 10
1	Math Foundations, Algebra I, Geometry, Algebra II	1	Algebra I, Geometry, Algebra II
1	Biology	1	Intro to Physics, Intro to Chemistry & Waves
1	World History	0.5	Economics
0.5	Physical Education	0.5	Physical Education
0.5	Health	0.5	Fine Arts
0.5	Information & Communication Technologies (ICT)	0.5	Open Elective
GRADE 11		**GRADE 12**	
Credits	Courses	Credits	Courses
1	English 11	1	English 12
1	Algebra II, Pre-Calculus, Intro to Statistics(EC)	1	Algebra II, Practical Math, Pre Calculus, Intro to Statistics(EC), College Algebra(EC), Intro to Data Analysis or Math-Related Course
1	Chemistry OR (2) .5 credit science electives	1	Physics
1	US History	0.5	American Government
2	Concord Regional Technical Center Program	2	Concord Regional Technical Center Program
0.5	Personal Finance	0.25	Community Service

NOTE: This is a suggested guideline; Scheduling conflicts may not allow for all students to follow the exact program.

POST-SECONDARY EDUCATION

During the school year, admission counselors from select institutions visit Pittsfield Middle High School, as do recruiters from the military services. The dates of these visits are announced in advance, and interested juniors and seniors are encouraged to meet with these representatives.
Students are highly encouraged to visit their websites when researching their post-secondary institutions. Students should also plan visits to post-secondary schools during their junior year, or before November of their senior year. Additional information is also available at www.graniteedvance.org, www.petersons.com, www.princetonreview.com and www.collegeboard.com. In addition, all students will create a College Board account which has endless resources for developing plans for the next phase of their lives beyond high school. Below are general requirements that students should keep in mind when planning their high school course of study.

General requirements for *community colleges* are:

ENGLISH: 4 years
MATHEMATICS: 3 years
SCIENCE: 3 years
SOCIAL STUDIES: 3 years *(NOTE: NH Scholars requires 3.5 years of social studies)*

Examples: NHTI, Manchester Community College, Nashua Community College, Lakes Region Community College, Great Bay Community College, White Mountain Community College

General requirements for most *four year* colleges/universities are:

ENGLISH: 4 years
MATHEMATICS (college prep): 3 years
SCIENCE (two must be lab sciences): 3 years
SOCIAL STUDIES: 3 years *(NOTE: NH Scholars requires 3.5 years of social studies)*
WORLD LANGUAGE: 2 years

Examples: UNH, Plymouth State University, Keene State College, New England College

General requirements for *highly selective* colleges/universities are:

ENGLISH: 4 years
MATHEMATICS (college prep): 4 years
SCIENCE (three must be lab science): 4 years
SOCIAL STUDIES: 3 years *(NOTE: NH Scholars requires 3.5 years of social studies)*
WORLD LANGUAGE (one language): 3-4
years

Examples: Columbia University, Dartmouth College, Brown University, Yale University, Princeton University

Many colleges and universities are "test optional", which means that you have the choice as to whether or not to submit your SAT scores. Speak with the Guidance Department if you have questions about whether or not you should submit your scores.

The following Pittsfield Middle High School academic and course policies are subject to change. Please review the PMHS Student and Family Handbook for current policy adaptations.

TESTING

Pittsfield Middle High School annually hosts College Board testing for students in grades 11 and 12 in October free of charge. Students in grade 11 standing will take the College Board SAT free of charge in April for the NH state assessment. It is recommended that college bound students take the SAT in May/June of their junior year, and again, at PMHS, in October of their senior year. Testing timelines are listed below.

TEST	YEAR	TIMELINE
PSAT/NMSQT (College Board)	Grade 11	October (at PMHS)
SAT (College Board) - State Assessment	Grade 11	March/April (at PMHS)
SAT (College Board)*	Grade 11	May/June
SAT (College Board)	Grade 12	October (at PMHS)
ASVAB (Armed Service Vocational Aptitude Battery)	Grade 12	November/December
Specific dates, locations, and fees will be announced. **Please contact the Guidance Department for College Board fee waiver information.*		

ACADEMIC PROGRAMS

CONCORD REGIONAL TECHNICAL CENTER (CRTC)

OVERVIEW: Students have the opportunity to attend the Concord Regional Technical Center (CRTC) at Concord High School as a sophomore, junior and/or senior. Applications to the CRTC will be distributed by the Guidance Department in January, and will be due in February for admission for the following year.

PROGRAMS: The CRTC provides students with thirteen two-year program opportunities including Automotive Technology, Business, Education and Behavioral Science, Emergency Services, Computer Engineering, Construction Trades, Cosmetology, Criminal Justice, Culinary & Pastry Arts,Graphic Design & Creative Media, Health Science, and Theater Technology & Design. CRTC course descriptions are included in this program of studies. Most of the programs at the CRTC have dual enrollment opportunities where students can earn both high school and college credit. Please visit **https://thecrtc.org** for more information.

POLICIES: The CRTC institutes a strict attendance policy (showing up to work every day), dress expectations (workplace safety), and an emphasis upon proper conduct at all times (team work). The CRTC allows five absences per semester, after which the student will lose credits in the course and must meet with the CRTC Director to appeal. Bus service is provided to and from the CRTC from Pittsfield Middle High School. Students who miss the bus to CRTC are to report to the main office at PMHS immediately. Students are not allowed to drive to the Concord Regional Technical Center without written approval by Concord High School and Pittsfield Middle High School.

NATIONAL HONOR SOCIETY

The National Honor Society (NHS) Advisor and Faculty Council selects students to the National Honor Society. The NHS Faculty Council consists of five faculty members from Pittsfield Middle High School appointed by the NHS Advisor. The NHS Advisor is a non-voting member; therefore, the NHS Faculty Council will make the final determination of NHS selection. Selection is based on scholarship, leadership, service, and character.

ELIGIBILITY:

1. To meet the academic requirements, a student must have a minimum cumulative GPA (grade point average) of 3.0 on a 4.0 scale. The student's cumulative GPA will be calculated three weeks after the last day of the previous marking period (i.e. end of the previous school year). Additionally, a student who has an INC in any previous course, at the time of review, is not eligible. To retain membership in the National Honor Society, members must maintain a minimum cumulative GPA of 3.0 on a 4.0 scale.
2. Candidates must have been in attendance at PMHS for the entirety of the semester prior to the end of the previous marking period.

For notices of appeals in cases of non-selection of candidates, and the disciplining or dismissal of members, please contact the NHS Advisor for the official National Honor Society rules and regulations. *Members who resign or are dismissed are never again eligible for membership or its benefits.*

SELECTION PROCESS: Students who are eligible for membership will be notified by the NHS Advisor. Once notified, students will have one calendar week to complete and submit the NHS application requirements. Only those students who return the completed application will be considered for selection. The selection decision will be determined by the NHS Faculty Council during the 2nd quarter.

NEW HAMPSHIRE SCHOLARS

OVERVIEW: The State Scholars Initiative was established in 2006. It is a federally funded national program with over twenty-five actively participating states. In 2007, the New Hampshire Scholars Initiative began with just six schools. Currently, there are over 70 participating schools across the state. The NH Scholars Initiative works with local business leaders to design a defined, rigorous academic course of study that will adequately prepare them for post-secondary education as well as today's competitive job market.

PATHWAYS: Students are eligible to earn one or more of the five New Hampshire Scholars Pathways: Core Course of Study, STEM, ARTS, STEAM, and Career. The STEM, ARTS, and STEAM pathways require a minimum grade point average (GPA) as well as classes focused on each specific path.

Core Course of Study	STEM Emphasis	ARTS Emphasis
▪ 4 Credits of English	▪ 4 Credits of English	▪ 4 Credits of English
▪ 4 Credits of Math	▪ 4 Credits of Math	▪ 4 Credits of Math
▪ 3 Credits of Lab-Science	▪ 4 Credits of Science (3 Labs)	▪ 3 Credits of Lab-Science
▪ 3.5 Credits of Social Studies	▪ 3.5 Credits of Social Studies	▪ 3.5 Credits of Social Studies
▪ 2 Credits of Foreign Language	▪ 2 Credits Foreign Language	▪ 2 Credits of Foreign Language
	▪ 1 Credit (or more) STEM-related	▪ 2 Credits (or more) ARTS-related
	▪ Minimum 3.2 GPA (4.0 scale)	▪ Minimum 3.2 GPA (4.0 scale)

In addition to the Original Scholars curriculum, *Career Pathway* Scholars will:

- Successfully complete one of the following: Approved NH CTE Program, Industry- Aligned or Career-Driven Extended Learning Opportunity, All Sequence Components in Formal Career Pathway Program of Study, CCSNH Industry Certificate Sequence
- Successfully engage in a Work Based Learning Experience
- Successfully earn one of the following: College Credits, Industry Valued Recognized Certificate, or Postsecondary Hours

In addition to the Core Course of Study curriculum, the STEAM Pathway combines the STEM and ARTS pathways. It requires 2 years of STEM and two years of ARTS coursework.

**NOTE: NH Scholars is a high school program. Course requirements must be earned during high school (9-12). Students are encouraged to take high school level courses during middle school to allow the opportunity to take higher level courses later in high school. Credit earned in middle school for high school level courses satisfy PMHS graduation requirements, however, the expectation of a NH Scholar is to meet the requirements during their high school career.*

PROCEDURE: Students choosing to participate in the NH Scholars Program will need to meet with the Guidance Department. Students completing the program are eligible for college application fee waivers from select institutions, notary of completion on their official transcript, and are honored with a certificate and a pin at graduation. Information about the NH Scholars program is available at www.nhscholars.org.

ACADEMIC INFORMATION

ALTERNATIVE LEARNING PLANS: In an effort to reduce the number of students who do not complete the requirements necessary to graduate high school and earn a diploma, the Board established a program for alternative learning plans allowing students to obtain a high school diploma or its equivalent. Alternative learning plans may include, but are not limited to, alternative schedules, home- based learning, online courses/distance education, early graduation, late graduation, HiSET preparation or opportunities approved by the Assistant Principal in conjunction with Board policies. Alternative Learning Plan components will be determined through a team consisting of the Assistant Principal, student, parent/guardian, Advisor and other appropriate people based on the individual student need.

CLASS STANDING: Students are required to accumulate a specific number of credits and successfully complete their grade level English course (1 credit) in order to advance to the next grade. Class standing requirements are as follows:

Sophomore = 5.25 credits and English 9
Junior = 10.5 credits and English 10
Senior = 15.75 credits and English 11

COMMUNITY SERVICE REQUIREMENT: Community service is work performed without monetary compensation intended to help the community in some way, be it through beautification, support, or participation at community events. Community service is voluntary work performed to help people or a person. It is meant to connect us to the community where we live, work or to the global community. Because we are all citizens, it is our responsibility to learn about and help others. It is a way to pay it forward. Community service is also a way to pay back the town, state, and country.

REQUIREMENTS:

- To receive a Pittsfield Middle High School diploma, high school students are required to complete 40 hours of community service.
- Students who transfer to PMHS during their high school year will have their hours prorated. Students may complete this requirement individually or by working in groups. Students may earn community service hours while enrolled in grades 6-12. Students are expected to follow the PMHS Norms while working in the community.
- All community service must be pre-approved by the Advisor. The Assistant Principal has final say in all community service concerns.
- To receive credit for the hours, students must submit the original copy of the completed Community Service Verification Form to the Guidance Department within 90 days of the date of the service.

COMPETENCY BASED ASSESSMENT: The competency-based assessment and evaluation system at Pittsfield Middle High School is founded upon common expectations for high levels of student learning. At Pittsfield Middle High School, each course has a set of established core competencies that describes what students are expected to know and be able to do as a result of completing the course's learning requirements. The purpose is to provide structure and expectations to ensure common and systematic competency-based assessment practices are used in all courses by all teachers at the middle high school. These practices will be related directly to state learning goals, and competencies will be used to assign credit and report on student progress

GRADUATION: High School graduation is the highlight of a successful educational experience at PMHS. It is a formal occasion for the graduates and all attendees. Graduation consists of Senior Awards Night and Commencement. All graduation requirements and financial obligations must be met prior to participation in graduation rehearsals or exercises. Attendance at all graduation rehearsals is mandatory. We urge parent/guardian support and cooperation in making graduation a happy and meaningful event in the life of their child.

EARLY GRADUATION: The Pittsfield School Board approved a policy for early graduation. The Assistant Principal shall approve requests which are determined to meet all state and local graduation requirements and indicate that early graduation is related to career and/or educational plans of the student. Students under the age of 18 must have the approval of a parent/guardian. Please see the Guidance Department for more information.

FINAL GRADE SCORE REPORTING:

1. A competency score of 2.5 is considered to be meeting expectations.
2. When a student meets expectations for all course competencies, credit will be awarded.
3. Competency scores will be averaged to determine the final course score.
4. Final course scores will be translated to a letter score according to the table below.
5. Student transcripts (high school courses only) will reflect the letter grade.

Final Course Score	Letter Grade
3.66-4.0	A
3.5-3.65	A-
3.44-3.49	B+
3.22-3.43	B
3.0-3.21	B-
2.83-2.99	C+
2.5-2.82	C
0-2.49	F (No Credit)
Not Competent Yet	NCY (No Credit)
Competency Recovery	INC (No Credit)
Pass	P (Credit)
Fail	F (No Credit)
Audit	J (No Credit)
Attendance Fail	AF (Credit)

GRADE POINT AVERAGE AND CLASS RANK: Grade point average (GPA) is determined from final course grades, and is only calculated for high school level courses. Advisory, learning studios, community service, and courses with a final mark of "Pass" or "Fail" are not included in the GPA calculation. Final marks from included courses are given the appropriate non-weighted numerical value, and then multiplied by the potential credit of the course to determine grade points earned. The grade points are totaled and divided by the total number of potential credits to determine the student's grade point average. The GPA is calculated each year, and a cumulative GPA is maintained.

Class rank is determined by the student's cumulative GPA. After each semester, class members are ranked from highest to lowest. Class rank helps to determine the class Valedictorian and Salutatorian at the time of graduation.

Upon enrollment at Pittsfield Middle High School, grades for students transferring from other school districts are converted to the un-weighted GPA calculation method. Transfer students must be enrolled for their entire senior year in order to be considered for Valedictorian and Salutatorian and other academic awards. Please note that colleges and universities use their own formulas to recalculate grade point averages for admissions and scholarship consideration.

HIGH SCHOOL CREDIT: Students in grades 7 and 8 have opportunities to earn high school credit that will count towards Pittsfield Middle High School graduation requirements. Any middle school student

who wishes to enroll in a high school course must have prior approval by the Guidance Department and course instructor. Middle school students who wish to enroll in a high school VLACS course must have prior approval by the Guidance Department. Failure to obtain approval may result in earned high school credit ineligible towards graduation requirements. Approved credit earned from high school courses will be calculated in the student's high school GPA and displayed on their official transcript. NOTE: High school credit earned in middle school fulfills graduation requirements, but does not fulfill the requirements for the NH Scholars program.

HONOR ROLL: High School Honor Roll will be determined at the end of the school year. Students with a grade of INC are not eligible for Honor Roll.

High School Eligibility Requirements:

- **Honors with Distinction**: Minimum GPA of 4.0 (A)
- **High Honors**: Minimum GPA of 3.7 (A-)
- **Honors**: Minimum GPA of 3.0 (B)

TRANSFER STUDENTS: High school students who transfer to PMHS are required to provide an official transcript from their previous high school at the time of registration. The previous school, course names, and grades will be maintained on the PMHS transcript. Upon review of the transcript, the Guidance Department reserves the right to determine the best way to fulfill PMHS graduation requirements. GPA will be determined by all previous letter grades. In the instance of numerical grades, the letter grade equivalent of the prior school will be used. Although PMHS does not accept grades of C- or below, all previous letter grades of this nature will be translated into GPA according to the designated numerical equivalent. If a student transfers from a school with a different credit system, the Guidance Department will determine the number of appropriate credits for each course.

COURSE INFORMATION

CLASS ATTENDANCE: Daily attendance at school and in class is extremely important. Students are responsible for work missed during a period of absence as well as making arrangements to complete the work promptly. Please refer to the late work policy in the student and family handbook.

COURSE AUDIT: Students may request to "audit" a course. Auditing involves attending and completing course work without receiving credit or a final grade at the close of the course. Students may not audit courses that fulfill graduation requirements. Successfully audited courses will result in a "J" as a final mark on their high school transcript which will not affect their grade point average. Once a student has been enrolled in an audited course, they can no longer earn credit for the course. Students must request to audit a course no later than the midpoint of the course. The midpoints are as follows:

- Midpoint of fall semester course: End of first quarter
- Midpoint of spring semester course: End of third quarter

The student must complete a schedule change request form, obtained from the Guidance Department. The request for auditing a course must be approved by the Guidance Department, teacher of the course, advisor, case manager (if applicable), and parent/guardian (if the student is under the age of 18).

Students may also receive a final grade of "J" for enrichment courses. Such courses include specific learning studios or job shadow extended learning opportunities. Enrichment courses provide the student with the subject knowledge and/or experience, but they are not responsible for the submission of assignments or mastery of competencies.

COURSE CANCELLATION: The courses listed in this Program of Studies may be rescinded for a variety of reasons, therefore, students should register for as many courses as possible. Students are asked to select alternative courses in the instance a course becomes unavailable. If selected courses are

annulled, these alternatives will be scheduled.

COURSE PRIORITY: In certain courses there may be a limited number of sections available. Registration priority will generally be given to students who require the course for graduation with subsequent priority given to class standing in the following order: seniors, juniors, sophomores, and freshmen.

COURSE SELECTION AND APPROVAL: Courses are scheduled on a semester long basis. When you consider a course, please note how it is scheduled and the impact that it may have on other courses you may want to take. A student may register for any course provided he/she meets the prerequisites. Students, parents, advisors, counselors, and teachers should communicate fully prior to course selection. Parents will be asked to approve the student's course selection before the close of the school year. It is expected that courses selected during the spring shall become the student's educational program the following fall.

COURSE WITHDRAWAL: It is essential that students devote sufficient time to planning their schedules so that withdrawals are avoided. Students are responsible for all the requirements of any course in which they are registered unless the student officially withdraws through the Guidance Department. Each request for withdrawal will be considered on its own merit and according to the educational needs of the student.

- For the initial ten days of class, students may withdraw without a final mark for the course on their high school transcript or affecting their grade point average.
- Between the tenth day and midpoint of the class, the student must complete a Schedule Change Request form, obtained from the Guidance Department. The midpoints are as follows:
    - Midpoint of fall semester course: End of first quarter
    - Midpoint of spring semester course: End of third quarter

The schedule change request must be approved by the Guidance Department, as well as the teacher of the dropped/added course(s), advisor, case manager (if applicable), and parent/guardian if the student is under the age of 18. If approved, this will result in a final mark of "WP" (withdrawn passing) or "WF" (withdrawn failing) on their high school transcript and no earned credit. Final marks of "WP" and "WF" do not affect the student's grade point average.

- Withdrawals after the midpoint of the class will result in a failing grade for the course which will negatively affect their grade point average. The student will receive no credit for the course.

Please refer to the "Online Learning Opportunities" section for information on online course withdrawal.

DUAL CREDIT/ENROLLMENT: The Community College System of New Hampshire (CCSNH) offers two dual enrollment opportunities for high school students, Early College (EC), formerly called "Running Start" and Early College Online, formerly called "E-Start." These programs give students the opportunity to earn college credits while in high school. Early College is a program where students take the course taught by a teacher at Pittsfield Middle High School. Pittsfield Middle High School currently offers five Early College courses, English 12 Composition, Introduction to Statistics, Introduction to Literature, College Algebra, and Psychology. Composition, Introduction to Literature and College Algebra offer four college credits through NHTI and one high school credit. Introduction to Literature and Psychology offer 3 college credits and .5 high school credit. To receive credit, students must successfully complete the course, and pay the reduced tuition cost. Financial assistance for qualified students, as well as payment plan options, are available for Early College courses. Please see the Guidance Department for more information.

Virtual Learning Academy Charter School(www.VLACS.org)offers Early College Online, through the Community College System of New Hampshire. This program allows high school students to earn high school and college credit through online learning. Students must sign up for VLACS dual enrollment

courses in advance and pay the reduced tuition fees. Please refer to the end of this program for a complete list of the VLACS dual enrollment courses.

Students may also earn high school credit by taking a college course that is not part of a dual enrollment program. Additional information regarding alternative credit options is available in Pittsfield School District policy IMBC.

GUIDED/INSTRUCTIONAL STUDY: Guided Study is monitored by a teacher, and is available to students who have an Individualized Education Program (IEP) or Section 504 Plan who may need more focused assistance to help with their course work. Students will also learn organizational skills and research tools. Senior release will not be allowed during Guided Study.
Students who enroll in an Instructional Study will be expected to utilize that period for academic purposes. Instructional Study is supervised by staff members.

ONLINE LEARNING OPPORTUNITIES: Pittsfield Middle High School encourages students to take full advantage of online learning as a means of enhancing and supporting their education. These educational courses will fulfill curriculum requirements. PMHS offers the following online opportunities:

- Virtual Learning Academy Charter School (VLACS): www.VLACS.org
- APEX Learning: apexlearningvs.com

POLICIES: The Board encourages students to take full advantage of online learning as a means of enhancing and supporting their education. It also includes opportunities for additional educational options. These educational courses will fulfill curriculum requirements. Students must have online courses / distance education courses approved by the Guidance Department ahead of time to receive credit. To graduate with a Pittsfield Middle High School diploma, online courses / distance education may include a maximum of five credits towards the 21.25 credits required for graduation. Courses not available at PMHS or that conflict with a student's schedule are considered non inclusive. Extenuating circumstances will require approval by the Guidance Department. The written approval of the Guidance Department is required before a Pittsfield School District student enrolls in online courses / distance education. In order to receive credit for an online course, students are encouraged to take exams administered at Pittsfield Middle High School, proctored by a member of the faculty. Please refer to the PMHS Student/Family Handbook for the comprehensive online policy.

Virtual Learning Academy Charter School (refer to www.VLACS.org for a comprehensive list of VLACS courses)

- Parents/guardians must participate in a phone conversation with the online teacher before beginning a VLACS course. During the first 28 calendar days of being activated into a VLACS course, a student may drop the course without penalty.
- For each online course there is a minimum number of assignments that must be completed each week. Failure to submit the minimum number of assignments on a weekly basis may result in the delay of the course where the student must contact the teacher or removal from the course. Students dropped from the course may result in a failing grade on the student's academic transcript.
- If the course is dropped after completing 50% of the class requirements and failing to take the final exam, Virtual Learning Academy Charter School will issue an "F" for the final grade.
  NOTE: Failing grades reported by VLACS will be recorded in the student's PMHS academic record and will appear on their PMHS transcript.

PARENT QUESTIONS & CONCERNS

ACADEMIC: Parents are strongly encouraged to communicate directly with their child's advisor (see following page) and teachers regarding academic progress in specific subjects. Access to faculty email accounts is available through Alma. Alma usernames and passwords are provided at the beginning of each school year and at new student registrations. Parents should contact the Guidance Department with questions about their Alma account. Students with Individual Education Plans (IEP) or 504 Plans have assigned case managers to monitor implementation of individual student plans, and are a valuable resource for parents. Specific questions regarding academic status, earned credits, and graduation progress should be forwarded to the Guidance Department.

COLLEGE PLANNING: A variety of informational programs regarding college planning and financial aid are offered at PMHS in conjunction with Granite Edvance, formerly called New Hampshire Higher Education Assistance Foundation (NHHEAF) Center for College Planning. Their website (https://graniteedvance.org/) provides a wealth of resources for students and parents. The Guidance Department holds numerous events covering the college application process, financial aid, and scholarships during the course of the student's junior and senior years. Families are welcome to contact the Guidance Department with questions or concerns.

GRADUATION PROGRESS: Students will meet with the Guidance Department to monitor their graduation progress. If a student is in danger of not meeting graduation requirements, parents will be asked to attend a meeting with the Assistant Principal, Guidance Support Specialist, Advisor and/or Case Manager to develop an academic intervention plan.

COURSE DESCRIPTIONS

ADVISORY

The Advisory program, the foundation of PMHS, brings together a diverse group of students with a caring adult. Advisors support the social, emotional, and academic growth of each advisee by building and sustaining relationships with the advisees and the community. Advisors nurture, advocate for, and guide each advisee through his or her unique school experience. The program is aligned to school-wide competencies which are evaluated through ongoing assessments by both students and Advisors.

Advisory is scheduled for high school students. Senior and Junior release will not be allowed during this period.

Advisory 9 **Grade 9**	**(HS0009)**	**Credit: .25** **Graduation Requirement: Elective**
Advisory 10 **Grade 10**	**(HS0010)**	**Credit: .25** **Graduation Requirement: Elective**
Advisory 11 **Grade 11**	**(HS0011)**	**Credit: .25** **Graduation Requirement: Elective**
Advisory 12 **Grade 12**	**(HS0012)**	**Credit: .25** **Graduation Requirement: Elective**

Competencies:
C1: College and Career- Students will understand that developing and activating an informed plan about college and or career is a key component of post-graduate success.
C2: Be an Effective Learner- Students will understand that the continuous acquisition of skills, their choices for behavior, and development of their character contribute to being an effective learner and are necessary for success in school, work, and everyday settings.
C3: Community- Students will demonstrate the ability to be engaged and responsible members of their community.
C4: Student Led Conferences- Students will demonstrate the ability to articulate academic, personal, and social growth, as well as post-graduate goals, at Student-Led Conference.

BUSINESS AND INFORMATION & COMMUNICATION TECHNOLOGIES

Business courses satisfy the elective credit requirement and are a math-related course (MRC). Personal Finance meets the Financial Literacy requirement.

BUSINESS

(0304) Personal Finance (MRC)
(0306) Accounting I (MRC)
(0311) Business Math (MRC)

Personal Finance (MRC) **(0304)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Financial Literacy**

This class teaches the importance of personal finance and how an understanding of control over one's personal financial matters helps them in the preparation for the different stages in life. Subjects covered are financial responsibility, money management, income and careers, credit and debt, investing and saving, and risk management.

Competencies:
C1: Apply reliable information and systematic decision making to personal financial decisions.
C2: Apply strategies to monitor income and expenses, plan for spending and save for future goals.
C3: Use a career plan to develop personal income potential.
C4: Develop strategies to control and manage credit and debt.
C5: Implement a diversified investment strategy that is compatible with personal financial goals.
C6: Apply appropriate and cost effective risk management strategies.

Accounting I (MRC) **(0306)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Elective**

Accounting is a systematic method of keeping, planning, analyzing and interpreting financial records of a business. This course will allow the student to build on basic math skills while learning overall accounting concepts, principles, procedures, and terminology. It is designed to help students learn how accounting relates to different careers and fields of study. Accounting will provide students with an understanding of the accounting principles and cycle. Spreadsheets will be used throughout this course.

Competencies:
C1: Students will understand accounting regulations.
C2: Students will be able to demonstrate how to analyze, classify, record, and summarize financial data.
C3: Students will be able to demonstrate and apply cash control and banking procedures.
C4: Students will understand the characteristics of a merchandising, service, and non-profit business.
C5: Students will be able to demonstrate and understand payroll procedures.
C6: Students will be able to understand the necessary employability skills in order to achieve success in today's workplace.
C7: Students will understand the fundamentals concepts of entrepreneurship and how it influences the economy.

Business Math (MRC) **(0311)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Elective**

This course offers mathematics with the framework of the business world and should be useful to all students. Among the topics are: payroll, banking, taxes, insurance, charge accounts, housing costs, investments, discounts, marketing, warehousing, distribution, and inventory. Extensive work with spreadsheets will be used.
Competencies:
C1: Personal Finance- Students will learn the skills needed to apply the correct calculations to help them plan for personal finance matters as an adult.

C2: Consumer Math- Students will demonstrate an understanding that consumer math consists of using math skills and applying them to real life purchasing decisions.
C3: Business and Financial Management- Students will demonstrate that an understanding of business and financial math is necessary to understand certain key concepts in order to be successful financially on a business level.

A half credit in Information & Communication Technologies is required for graduation. Students who anticipate applying to the Information Technology program at Concord Regional Technical Center their junior year are strongly encouraged to enroll in ICT courses their freshman and sophomore year at Pittsfield Middle High School. The other course at PMHS that satisfies the ICT graduation requirement is Digital Photography (Fine Arts).

INFORMATION & COMMUNICATION TECHNOLOGIES

(0315) Computer Applications for Business (ICT)
(0316) Yearbook Production Segment 1 & 2 (ICT)

Computer Applications for Business (ICT) (0315) Credit: .5
Graduation Requirement: ICT

This course teaches the business applications and programs that companies use to perform tasks and manage different aspects of their operations. These applications help businesses work more efficiently, make better decisions, and better serve their customers. The following applications will be taught: Microsoft Word and Google Documents, Microsoft Powerpoint and Google Slides, Microsoft Publisher and Google Draw, Microsoft Excel and Google Sheets. The course will consist of 20 projects that incorporate work calendars, print advertisements, marketing presentations, entrepreneurship proposals, profit and loss reports, and inventory reports.

Competencies:
C1: Students will demonstrate design, development, publishing, presenting, and promoting products using technology resources that communicate concepts to audiences inside and outside the classroom.
C2: Students will demonstrate the ability to evaluate their use of technology tools in their projects and reflect on what helped them manage, promote, and integrate the information to communicate its concept.

Yearbook Segment 1 (0316S1) Credit: .5
Yearbook Segment 2 (0316S2) Credit: .5
Graduation Requirement: ICT

A half-credit option is available for students whose schedule does not allow a full-year enrollment.

PREREQUISITE: Teacher approval is required to sign up for this course. Students must pass segment 1 of the course before moving on to segment 2.

In this class, we will plan, design, create, sell, finance, and distribute the yearbook. This class includes the layout and design of pages, photography, fundraising, selling of community ads, and basic administrative skills. The finished product will be student-generated guided by an advisor. Though your advisor will guide you to strive for a quality end-product, it is up to you to follow through and do what's necessary to create the best yearbook possible by the spring deadline while accurately

depicting student life at PMHS.

Competencies:
C1: Students will demonstrate the design and production of the PMHS yearbook by meeting deadlines through the year using the school's contracted yearbook publisher on-line software.
C2: Students will demonstrate the elements of digital photography and videography.
C3: Students will demonstrate fundraising strategies required to raise money to pay for the production of the yearbook.
C4: Students will demonstrate the administrative processes applicable to the creation and sale of the yearbook.

ENGLISH

Students are required to earn four credits of English for graduation. They must earn credit in English 9, English 10, English 11 and English 12. NOTE: Selected English courses are divided into half-year segments.

(0502FP) English 9: Power of Literature S1	(0502SP) English 9: Power in Literature S2
(0502FL) English 10: World Literature S1	(0502SL) English 10: World Literature S2
(0561S1) English 11: American Literature S1	(0561S2) English 11: American Literature S2
(0567) English 12: Composition (EC)*	(0562SM) English 12: Literature in Media S2
(0562FJ) English 12: A Journey of Self Discovery S1	(0568) English 12: Intro to Literature S2 (EC)*
(1702) English 10: Individualized (Skills)*	(1701) English 9: Individualized (Skills)*
(1704) English 12: Individualized (Skills)*	(1703) English 11: Individualized (Skills)*

*EC = Early College, formerly called "Running Start", a course with an option for dual credit (high school & college) through NHTI.
*Skills Course: These need to be approved by the Director of Student Services or Case Manager.

English 9 Power In Literature S1 **(0502FP)** **Credit: .5**
English 9 Power in Literature S2 **(0502SP)** **Credit: .5**
Grade 9 **Graduation Requirement: English**

PREREQUISITE: None
This course investigates the Power in Literature by taking apart some literary genres–short stories, nonfiction, and web reading to figure out what makes them work. Students will be introduced to multicultural texts as we explore the power that lies within them. This will require reading, vocabulary study, regular composition writing, synthesis of various texts, and an in-depth focus on the analysis of literature with a particular target of building a foundation for high school English. There will be an emphasis on effective communication, presentation skills, and the use of technology.

English 10 World Literature S1 **(0502FL)** **Credit: .5**
English 10 World Literature S2 **(0502SL)** **Credit: .5**
Grade 10 **Graduation Requirements: English 10**

PREREQUISITE: Successful completion of English 9
This course explores literature from around the globe. With a wide variety of texts, students are given opportunities to explore and respond to multiple genres from various global, historical, and social contexts. As we examine world literature from medieval times to modern day, we will consider the context that shaped these novels, epic poems, graphic texts, and plays. This will require extensive reading, vocabulary study, regular composition writing, synthesis of various texts, and an in-depth focus on the analysis of literature with a particular target of creating independence in reading and writing skills. There will be an increased emphasis on effective communication, presentation skills, and the use of technology.

English 11 American Literature S1 **(0561S1)** **Credit: .5**
English 11 American Literature S2 **(0561S2)** **Credit: .5**
Grade 11 **Graduation Requirement: English 11**

PREREQUISITE: Successful completion of all preceding English courses or with instructor approval. It is recommended that this class be taken in conjunction with US History.
This course explores American literature and culture starting with the early colonists and ending with modern literature, examining how literature and philosophy have contributed to American popular culture. With an emphasis on communication skills, the aim of this course is to help students understand the development of American culture and to view literature and history as the expression of concepts and values that have formed the national character. As we examine American literature, we will consider the factors that defined these novels, poems, short stories, essays, etc. With an emphasis on effective communication skills, this will require students to read extensively, practice their skills in verbal and written expression, research, think critically, analyze material, and integrate technology.

English 12 Composition S1 (EC) **(0567)** **Credit: 1**
Grade 12 **Graduation Requirement: English 12**

PREREQUISITE: Successful completion of all preceding English courses AND with instructor approval. **This is a dual-credit option class through NHTI's Early College Program. Students will be required to pay $150.00 for a 4 credit college course.** Students may also take this course for high school credit only. Most colleges require a freshman-level composition class. This class should transfer(for most colleges) as the required freshman composition class. The class will focus on essays and fiction/nonfiction readings around the theme of: Who am I? What is my purpose? The class will focus heavily on reading, writing, revision, grammar, discussion, and presentation. Students who complete this course in the first semester will not be required to take an English class in the second semester as it will satisfy the PMHS English 12 requirement. **Summer reading is required. This is a college level class.**

English 12 Introduction to Literature S2 (EC) **(0568)** **Credit: .5**
Grade 12 **Graduation Requirement: English 12**

PREREQUISITE: Successful completion of preceding English courses AND with instructor approval. **This is a dual-credit option class through NHTI's Early College Program. Students will be required to pay $150.00 for a 3 credit college course.** This course may be differentiated for students seeking high school credit only. Introduction to Literature is an introductory survey exposing students to representative works from the major genre forms: fiction, poetry, and drama. The course is focused

on reading, analysis, and discussion. **Those seeking dual credit will be required to also complete the assigned writing components.** With an emphasis on effective communication skills, this will require students to read extensively, practice their skills in verbal and written expression, research, think critically, analyze material, and integrate technology. This course is geared towards students who love to read.

English 12 A Journey of Self Discovery S1 (0562FJ) Credit: .5
Grade 12 Graduation Requirement: English 12

PREREQUISITE: Successful completion of all preceding English courses or with instructor approval. **All seniors should enroll in this course or Composition during the first semester.** This course focuses on post-graduation skills and how to apply to college. We will explore how to tell one's personal story for use as a college essay. Students will practice interview skills and understand business etiquette, and develop a professional resume. Students will also engage in a Make Your Mark project, which allows them to reflect on their academic career thus far and look towards the future. With an emphasis on effective communication skills, this will require students to practice their skills in verbal and written expression, research, think critically, analyze material, and integrate technology.

English 12 Literature in Media S2 (0562SM) Credit: .5
Grade 12 Graduation Requirement: English 12

PREREQUISITE: Successful completion of all preceding English courses or with instructor approval. This course explores literature from bestsellers to comics to Shakespeare and everything in between. The goals of this course are to heighten senses when it comes to reading, identify patterns in literature, make connections between different types of literature, explore the art of novel to film adaptations, and see how Shakespeare is portrayed in the media. With an emphasis on effective communication skills, this will require students to read extensively, practice their skills in verbal and written expression, research, think critically, analyze material, and integrate technology.

Competencies:
C1: Literary Text- Students will demonstrate the ability to comprehend, critique, and analyze a variety of increasingly complex literary texts.
C2: Informational Text- Students will demonstrate the ability to comprehend, critique, and analyze a variety of increasingly complex informational texts.
C3: Writing: Students will demonstrate the ability to write effectively for a variety of purposes and audiences. (Informative/Explanatory, Narrative, Argumentative)
C4: Grammar- Students will demonstrate the ability to skillfully interpret and apply the conventions of the English language to communicate clearly and effectively.
C5: Speaking and Listening- Students will demonstrate the ability to listen and view critically, and to speak purposefully and effectively.
C6: Research and MLA Format- Students will engage in research/inquiry to investigate topics and to analyze, integrate, and present information.

Skills Course: These need to be approved by the Director of Student Services or Case Manager

English 9 Individualized (1701) Credit: 1
Grade 9 Graduation Requirement: English 9

English 10 Individualized **(1702)** **Credit: 1**
Grade 10 **Graduation Requirement: English 10**

English 11 Individualized **(1703)** **Credit: 1**
Grade 11 **Graduation Requirement: English 11**

English 12 Individualized **(1704)** **Credit: 1**
Grade 12 **Graduation Requirement: English 12**

PREREQUISITE: Successful completion of preceding English course and recommendation by the Special Education Department. The Pittsfield Middle High School Individual English program is designed specifically for students with moderate to severe disabilities. This program focuses on the development of fundamental reading and writing skills that will be needed upon leaving Pittsfield Middle High School. Functional reading and writing skills will be incorporated along with applying these skills to everyday living situations. The individual English class will utilize the community, school, and kitchen setting.

FINE ARTS INSTRUCTION

A half credit in Fine Arts is required for graduation. Music and art courses are available as part of this requirement. Digital Photography fulfills the NH state graduation requirement of 0.5 credit for information and communication technologies (ICT).

ART

(0201) Principles of Art and Design
(0202) Ceramics
(0251) Digital Photography
(0220) Studio Art I
(0204) Drawing and Painting
(0209) Ceramics II
(0252) Digital Photography II
(0221) Studio Art II

Principles of Art and Design **(0201)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts**

Principles of Art and Design is a laboratory course which teaches basic art skills and introduces the student to art history and art appreciation. Students will learn to express their own ideas through art work, will use vocabulary appropriate to the art form, and will create a variety of projects that demonstrate what they have learned. Organization of work area and time, the care and use of a variety of materials, and self-motivation will be stressed. Areas studied will include drawing, painting, perspective, printmaking, ceramic technique and an introduction to basic computer use and computer graphics.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3:Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts.

C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

Ceramics **(0202)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts**

PREREQUISITE: Successful completion of Principles of Art and Design of instructor approval. Ceramics is a laboratory course that teaches basic ceramic skills and vocabulary. Hand methods of construction as well as wheel throwing will be taught. The history of ceramic construction will be taught in conjunction with each project assigned. Students will learn to use and care for a variety of tools and materials. They will learn to fire and glaze their ceramic projects. They will create a variety of projects that will demonstrate what they have learned in class. Problem solving and creative thinking are emphasized in this course. Students will also be instructed in the use of the computer in the art room to get and print notes on various topics covered in class. This may be a review for some, but will teach computer skills to others as part of the art program. Students will make a pinch construction, slab construction, coil construction, and create ceramic sculptures as they work on the wheel.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3: Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts
C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

Ceramics II **(0209)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts**

PREREQUISITE: Successful completion of Ceramics I with a minimum numerical grade of 3.0. Skills developed in Ceramics I will be expanded upon to enable students to create original ceramic projects. Students will learn more advanced techniques and plan their own projects.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3: Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts.
C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

Drawing and Painting **(0204)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts**

PREREQUISITE: Successful completion of Principles of Art and Design or instructor approval. This course further develops the skills of drawing and painting and the knowledge of art history. Students will learn to use and care for a variety of materials and will identify the materials, processes, and tools used in the production of various products. Vocabulary related to art forms, self-motivation, and self-direction in class work will be stressed. Areas covered include pencil, oil pastels, pen and ink, watercolor, and acrylics.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3: Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts.
C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

Studio Art **(0220)** **Credit: .5**
Grade 10-12 **Graduation Requirement: Fine Art, Elective**

PREREQUISITE: Successful completion of Principles of Art and Design and one other art elective or with instructor approval. Studio Art is a laboratory course which teaches **advanced** art skills. **Self-motivation and self-direction are crucial.** Students will pursue an independent, in depth exploration of their artistic vision. The product of this exploration will be a portfolio of several works that fulfills their goals. Students are encouraged to develop personal expression and themes. Students will be expected to design and complete projects on their own with independent research and help from the instructor. The teacher will assign art projects if they feel it is necessary. Care and maintenance of art materials and the studio area are part of the course requirements. Computer graphics are also required. Students will use acrylic paints, watercolors, pen and ink as well as making crafts, ceramic work, and sculptures.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3: Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts.
C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

Studio Art II **(0221)** **Credit: .5**

Grade 10-12 **Graduation Requirement: Fine Arts, Elective**

PREREQUISITE: Successful completion of Studio Art with a minimum numerical grade of 3.0. This course is an advanced continuation of Studio Art. Students will be expected to design and complete projects on their own with independent research. Care and maintenance of art materials and the studio area are part of the course requirements. Computer graphics are also required. Students will use acrylic paints, watercolors, pen and ink as well as making crafts, ceramic work, and sculptures.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3: Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts.
C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

Digital Photography **(0251)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts, ICT**

PREREQUISITE: Successful completion of Principles of Art and Design or instructor approval. This course is designed as an introduction to design and imaging through the use of digital photography and imaging software. Students will create various art projects while learning and applying the elements and principles of art and design. Students will engage in problem solving art projects to create original art utilizing the computer to paint, draw, design, and manipulate. Students will work at computer workstations combining digital photographs and traditional art mediums with the application of flatbed scanners and colored ink jet printers. Various career opportunities in digital photography will be introduced. Ownership of a digital camera is recommended but is not required. Students will have the opportunity to exhibit their work in the community through arts shows and our digital art gallery.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3: Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts.
C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

Digital Photography II **(0252)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts, ICT**

PREREQUISITE: Successful completion of Digital Photography I with a minimum numerical grade of 3.0. Skills developed in Digital Photography I will be expanded upon to enable students to create original imagery in a variety of styles. Students will learn more advanced techniques in photo editing to develop a personal digital portfolio.

Competencies:
C1: Creating- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to create and develop artistic ideas and artworks.
C2: Presenting- Students will apply the skills and language of a specific visual arts discipline and demonstrate the ability to produce and present artworks that convey meaning and communicate ideas.
C3: Responding/Reflecting- Students will apply the skills in language of a specific visual arts discipline and will demonstrate the ability to analyze, evaluate, and respond in the visual arts.
C4: Connecting- Students will apply the skills and language of a specific visual arts discipline and will demonstrate the ability to relate artistic ideas and works with personal meaning and external context to connect in the visual arts.

MUSIC

(1201) Band
(1202) Chorus

Band **(1201)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts, Elective**

PREREQUISITE: At least one full year of experience with a concert band instrument. This course will serve to increase musical skills such as music reading, instrumental technique, musical sensitivity, and performance practices. A wide range of musical styles will be examined and performed. Individual practice is required, as well as class rehearsals. There will be one required public concert per semester. Other concerts may also be scheduled.

Competencies:
C1: Notation- Students will demonstrate the ability to understand the function of standard notation.
C2: Performing- Students will realize artistic ideas and work through interpretation and presentation.
C3: Responding- Students will understand and evaluate how the arts convey meaning.
C4: Connecting- Students will relate artistic ideas and work with personal meaning and external context.

Chorus **(1202)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Fine Arts, Elective**

This course will serve to increase musical skills such as music reading, vocal technique, singing in parts, and performance practices. A wide range of musical styles will be examined and performed. Individual practice will be required, as well as classroom rehearsals. There will be one required public concert per semester. Other concerts also may be scheduled.
Competencies:

C1: Notation- Students will demonstrate the ability to understand the function of standard notation.
C2: Performing- Students will realize artistic ideas and work through interpretation and presentation.
C3: Responding- Students will understand and evaluate how the arts convey meaning.
C4: Connecting- Students will relate artistic ideas and work with personal meaning and external context.

HEALTH AND WELLNESS EDUCATION

HEALTH

One half credit of Health is required for graduation.

(0802) Health

Health **(0820)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Health**

Emphasis is placed on promoting wellness and positive behavior by encouraging students to evaluate their choices and take responsibility for their own well-being. This course focuses on self-awareness and provides opportunities for students to evaluate their present health situation and take measures to maintain and/or improve their health, prevent disease, and reduce risky health behaviors. Topics include self-esteem, stress management, mental health, drugs including alcohol, tobacco and illegal drugs, identification and prevention of infectious and lifestyle diseases, and reproductive health choices.

Competencies:
C1: Students will understand that a variety of factors will affect their health and wellness.
C2: Students will understand that the use of medicines and other drugs will influence the quality of one's life.
C3: Students will understand that mental and emotional health is influenced by numerous factors.
C4: Students will understand that diseases are classified by various factors.
C5: Students will understand that reproductive health and sexuality is a dynamic, ongoing process.

FAMILY AND CONSUMER SCIENCE

(0901) Creative Sewing
(0905) Child Development for Parenting
(0907) Food and Nutrition

Creative Sewing **(0901)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Elective**

In this lab course, students will learn the basics of clothing, sizing, pattern layout, and various stitching techniques. A minimum of two completed projects will be required of each student. Students will be required to provide patterns and fabric. Students will investigate career opportunities and issues in the textile industry.

Competencies:
C1: Students will investigate pathways within the textile and apparel industries.
C2: Students will demonstrate fashion, apparel and textile design skills.

C3: Students will demonstrate skills needed to produce, alter, or repair fashion, apparel, and textile products.

Food and Nutrition **(0907)** **Credit: .5**
Grade 10-12 **Graduation Requirement: Elective**

PREREQUISITE: Successful completion of high school Health. Food and Nutrition provides an in-depth study of nutritional science, safe and sanitary food preparation, and skills needed by students to manage their individual and family nutritional needs throughout their lifespan. A large part of the course is laboratory experience. Students will be required to complete food demonstrations during the course. This course also introduces students to other aspects of culinary arts such as history, culture, and environmental issues. Students may not take this course if they are enrolled in the Culinary Arts I or II at Concord Regional Technical Center.

Competencies:
C1: Students will understand that multiple factors influence nutrition and wellness practices.
C2: Students will demonstrate the knowledge and skills needed to meet the nutritional needs of individuals and families.
C3: Students will demonstrate the knowledge and skills needed to promote food safety and sanitation practices.
C4: Students will understand that science and technology influence the development, production, and consumption of foods and related issues.
C5: Students will demonstrate the knowledge and skills to acquire, handle and use food to meet nutrition standards for individuals and families.

PHYSICAL EDUCATION

One credit of Physical Education is required for graduation

(0801) Physical Education
(0802) Physical Education II
(0804) Lifetime Fitness Activities
(0805) Individual Physical Education Program (IPEP)

Physical Education **(0801)** **Credit: .5**
Grade 9-12 **Graduation Requirement: Physical Education**

Pittsfield Middle High School believes that preparing students for the 21st century cannot be accomplished without a strong and sustained emphasis on all students' health and wellness. Today's world has exploded with physical, mental, and social influences that affect not only learning in school, but also the lifelong health of the citizens that schools are preparing for graduation. Physical Education prepares students to function optimally as students, global citizens, and workers who demonstrate personal responsibility for one's health and fitness through an active, healthy lifestyle that fosters a lifelong commitment to wellness.

Competencies:
C1: Students will demonstrate motor skills and movement patterns, and be able to use these skills and patterns in a variety of physical activities.
C2: Students will demonstrate understanding of rules, strategies, and tactics, and be able to apply these concepts in a variety of games and activities.

C3: Students will engage in a physically active lifestyle that helps achieve, maintain a health enhancing level of fitness, and understand why they are important.
C4: Students will demonstrate how physical activity provides opportunities for enjoyment, challenge, self-expression and social interaction, and exhibit responsible personal and social behavior that respects self and others.

Physical Education II (0802) Credit: .5
Grade 9-12 Graduation Requirement: Physical Education

PREREQUISITE: Successful completion of Physical Education. This course is the continuation of Physical Education. It is specifically designed for students who have successfully completed Physical Education.

Competencies:
C1: Students will engage in a physically active lifestyle that helps achieve, maintain a health enhancing level of fitness, and understand why they are important.
C2: Students will analyze the fitness outcomes in a variety of activities and be able to apply this information to critique the benefits of participation to their overall health and fitness.
C3: Students will investigate the elements of physical fitness and use the information to design appropriate fitness plans.

Lifetime Fitness Activities (0804) Credit: .5
Grade 9-12 Graduation Requirement: Physical Education

PREREQUISITE: Completion of 2 semesters of Physical Education or instructor approval. Students will participate in activities designed for improving lifetime fitness skills, such as golf, tennis, walking, jogging, cross training, bowling, and other aerobic activities. Students will be required to organize, instruct and evaluate fitness activities.

Competencies:
C1: Students will engage in a physically active lifestyle that helps achieve and maintain a health enhancing level of personal fitness.
C2: Students will design and participate in a fitness program that is tailored to their needs and abilities.
C3. Students will demonstrate how physical activity provides an opportunity to challenge themselves and for positive social interaction.

Individual Physical Education Program(IPEP) (0805) Credit: .5
Grade 9-12 Graduation Requirement: Physical Education

PREREQUISITE: Successful completion of 0.5 credit of PMHS Physical Education with a B or better and instructor approval. Students will fulfill the objectives listed below as they represent the physical education graduation requirements. 1. Successfully completed one semester of standard physical education class. 2. Be actively involved in an approved athletic program for a full season. **STUDENTS ENROLLED IN THIS PROGRAM WILL AGREE TO DO THE FOLLOWING:** 1. Keep a daily notebook of practice events, what they learned and how it will help them to be a better athlete, and game summaries of their performance. 2. Meet with the high school physical education teacher on a weekly basis before or after school or during a study hall that coincides with the physical education

teacher's availability. 3. Do an end of season reflection on how participating in the sport has helped them master the course competencies.

Competencies:
C1: The student athlete will be able to demonstrate the skills, knowledge of the strategies, and fitness needed to compete in the chosen sport.
C2: The student athlete will demonstrate the characteristics of teamwork: Responsibility to self, team and school, dedication, fair play, and self-control.
C3: The student athlete will demonstrate good sportsmanship by showing civility towards others, showing respect, fairness, citizenship, and caring.

LIBRARY AND MEDIA

(0569) Technical Writing
(0570) Applied Research

Technical Writing **(0569)** **Credit: .5**
Grade 9-11 **Graduation Requirement: Elective**

This intermediate research course for grade 9 through grade 11 expands on the foundations of academic writing presented in grade 6 Learning Commons, and aims to cement understanding of formatting and citation expectations for formal and informal essays in high school. The course more deeply analyzes sources for bias and perspective. Students will be introduced to and expected to use: MLA citation formatting, Dewey Decimal Classification. Citation generators such as Scribbr and ZoteroBib, Databases such as EBSCOhost, National Geographic, Smithsonian Open Access, and JSTOR.

Competencies:
C1: Evaluating Sources and Using Evidence- The student gathers relevant information from multiple print and digital sources, assesses the credibility and accuracy of each source, and integrates the information while giving appropriate credit where due.
C2: Writing Nonfiction- The student writes informative and explanatory texts to examine and convey complex ideas and concepts clearly and accurately, developing the student's unique voice as an author.
C3: Communicating Conclusions- The student reads and comprehends nonfiction texts proficiently, and shares research findings.
C4: Grammar & Formatting- The student uses consistent, conventional grammar, spelling, and punctuation, and follows appropriate citation and formatting guidelines (MLA).

Applied Research **(0570)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Elective**

This advanced research course is geared towards college/university bound students. It will allow each student to independently choose one topic to investigate for the duration of the course. A mix of desk and field research are encouraged. Guidance on research will be provided by the instructor. Students will be introduced to and expected to use: APA and Chicago citation formatting for writing at the postsecondary level in the social and hard sciences. Qualitative and quantitative methodologies and methods to help conduct their own studies. Databases, including but not limited to JSTOR, ResearchGate, and the Directory of Open Access Journals. Reference managers such as Zotero and Mendeley.

Competencies:
C1: Evaluating Sources and Using Evidence- The student gathers relevant information from multiple print and digital sources, assesses the credibility and accuracy of each source, and integrates the information while giving appropriate credit where due.
C2: Writing Nonfiction- The student writes informative and explanatory texts to examine and convey complex ideas and concepts clearly and accurately, developing the student's unique voice as an author.
C3: Communicating Conclusions- The student reads and comprehends nonfiction texts proficiently, and shares research findings.
C4: Grammar & Formatting- The student uses consistent, conventional grammar, spelling, and punctuation, and follows appropriate citation and formatting guidelines at the college readiness level.

MATHEMATICS

Students graduating must earn three credits of mathematics as well as be enrolled in a mathematics or math-related course each year they are in high school. Courses notated with "MRC" in this program satisfy the math-related requirement. The sequence of courses chosen will depend on the individual student's mastery. NOTE: Selected mathematics courses are divided into half-year segments.

- **Computation work (method) must be shown.**
- **Calculators will be integrated in an appropriate manner by the instructor.**
- **Graphing calculators will be required for most math courses.**

(1101S1) Math Foundations S1
(1112S1) Algebra I S1
(1131S1) Geometry S1
(1132S1) Algebra II S2
(1136S1) Intro to Statistics S1 (EC)*
(1123S1) College Algebra S1 (EC)*
(1135S1) Practical Math S1: Intro to Data Analysis
(1107) Individual Math (Skills)*

(1101S2) Math Foundations S2
(1112S2) Algebra I S2
(1131S20 Geometry S2
(1132S2) Algebra II S2
(1136S2) Intro to Statistics S2 (EC)*
(1123S2) College Algebra S2 (EC)*
(1135S2) Practical Math S2

*EC= "Early College," formerly called "Running Start", a course with an option for dual credit (high school & college) through NHTI.
*Skills Course: These need to be approved by the Director of Student Services or Case Manager.

Math Foundations S1 **(1101S1)** **Credit: .5**
Math Foundations S2 **(1101S2)** **Credit: .5**
Grade 9 **Graduation Requirement: Mathematics**

PREREQUISITE: Recommendation of grade 8 math teacher. This course follows the completion of grade 8 math, and prepares students for Algebra I. Students will develop skills with positive and negative numbers, graphing, variable expressions, and linear equations. Our standards require mathematical practices to be used in all content topics, this course will assess these practices based on: self-checks, communication, perseverance, use of appropriate tools, precision, and the ability to construct viable arguments. Students who demonstrate mastery of the course competencies earn 1 high school math credit toward the 3 math credit graduation requirement. (NOTE: This course does not satisfy the Algebra requirement)
Competencies:

C1: Students will demonstrate the ability to develop and evaluate algebraic expressions and equations representing "real world" quantities and patterns.
C2: Math Practices- Students will demonstrate the ability to employ mathematical practices as they work.

Algebra I S1	**(1112S1)**	**Credit: .5**
Algebra I S2	**(1112S2)**	**Credit: .5**
Grade 9-12 (Grade 7 & 8 with approval)		**Graduation Requirement: Algebra**

PREREQUISITE: Recommendation by current math teacher. Successful completion of Semester 1 for Semester 2. This course meets the NH state requirement for 1 credit in algebraic concepts (Algebra 1). Students will increase their understanding of algebraic concepts through the study of four general mathematical topics during this course: Linear Functions, Systems of Equations, Linear Inequalities, and Polynomials (including exponent properties). Our standards require mathematical practices to be used in all content topics.

Competencies:
C1: Number Sense- Students will demonstrate the ability to apply numeric operations and algebraic thinking.
C2: Functions(Visual)- I can create tables and graphical representations of functions and relations to analyze and make predictions about real-world scenarios.
C3: Functions(Algebraic)- I can create and use algebraic representations of functions and relations to analyze and make predictions about real-world scenarios.
C4: Systems of Equations- Students will demonstrate the ability to model real world scenarios using systems of linear equations.
C5: Inequalities- Students will understand that inequalities represent a data set for problems that contain more than one solution. For example: price range, boundaries, and distances.
C6: Polynomials- Students will understand that monomials and polynomials are the foundation for higher level mathematics used in technology, science, architecture, space exploration, and engineering.

Geometry S1	**(1131S1)**	**Credit: .5**
Geometry S2	**(1131S2)**	**Credit: .5**
Grade 9-12		**Graduation Requirement: Mathematics**

PREREQUISITE: Successful completion of Algebra 1 for segment 1. Successful completion of Geometry Segment 1 for Segment 2. This course follows the completion of Algebra I. This course will include inductive and deductive reasoning, and analytic and synthetic methods of proof. General topics presented will include triangles, lines and angles, parallel and perpendicular lines, polygons, proportion, areas of polygons, measurement and construction, similar polygons, and regular polygons. Along the Cartesian coordinate system, algebraic topics have been integrated. Our standards require mathematical practices to be used in all content topics, this course will assess these practices based on: self-checks, communication, perseverance, use of appropriate tools, precision, and the ability to construct viable arguments. Graphing calculators will be integrated. Students who demonstrate mastery of the course competencies earn 1 high school math credit toward the 3 math credit graduation requirement.

Competencies:
C1: Math Practices- Students will demonstrate the ability to employ mathematical practices as they work.

C2: Reasoning and Proofs- Students will understand that the basics of Geometry is created by building a system of definitions, postulates and theorems in order to describe, represent, and communicate various geometric relationships, patterns, and scenarios.
C3: Congruence and Similarity in Geometric Figures- Students will understand that it is necessary to identify, interpret, and apply the appropriate tools and techniques to determine properties and measurements of geometric figures to model and solve problems.
C4: Polygons: Students will understand that the basic properties, classifications and relationships contained within polygons, circles, and solids can be applied to model and solve problems involving various geometric scenarios.

Algebra II S1 **(1132S1)** **Credit: .5**
Algebra II S2 **(1132S2)** **Credit: .5**
Grade 10-12 (Grade 9 with approval) **Graduation Requirement: Mathematics**

PREREQUISITE: Successful completion of Algebra I. This course follows the successful completion of Geometry. Topics studied will include rational and polynomial equations, systems of equations and inequalities, linear programming, irrational/complex numbers, polynomials, quadratic functions, radical expressions and equations, conic sections, and probability, and statistics. Students are expected to have mastered Algebra I skills, and should be prepared to set aside time for regular homework assignments. Graphing calculators will be integrated. NOTE: Students wishing to take Geometry and Algebra II concurrently should consult their current instructor and obtain administrative approval. This option is intended only for students with a grade of 3.1 or higher in Algebra 1 planning to continue with higher level math courses.

Competencies:
C1: Polynomial Rational Expressions/Equations- Students will understand that polynomial rational expressions and equations can be used to model situations & solve problems involving time & work.
C2: Radical Expressions/Equations- Students will understand that Radical expressions and equations can be used to model situations & solve problems involving economics, landscape design, & production/manufacturing, and projectiles.
C3: Quadratics & Parabolas-Students will understand that quadratic graphs can be used to model situations, make predictions, & show relationships involving economics.
C4: Linear Programming- Students will understand that linear programming can be used to model situations, make predictions, & show relationships involving economics, production/manufacturing, and engineering.
C5: Circles- Students will understand that non-function equations such as circles can be used to depict phenomena such as an earthquake epicenter.
C6: Exponential Functions- Students will understand that exponential functions can be used to model financial, growth, and decay phenomena.
C7: Probability & Stats- Students will understand that Statistics & the Laws of Probability can be used to predict outcomes of random events.

Introduction to Statistics S1 (EC) **(1136S1)** **Credit: .5**
Introduction to Statistics S2 (EC) **(1136S2)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Mathematics**

PREREQUISITE: Successful completion of Algebra I and Geometry.**There is an option for students to take this course as a dual credit class through NHTI's Early College program thus earning high school and college credit.** This course follows the successful completion of Geometry. Topics include Descriptive & Inferential Statistics, data collection & sampling techniques, frequency distributions & graphs, discrete

& normal distributions, confidence intervals, hypothesis testing, testing the difference between 2 means, 2 variances & 2 proportions, correlation & regression, counting techniques & probability, and sampling & simulations. Students are expected to have mastered Algebra I skills, and should be prepared to set aside time for regular homework assignments. Graphing calculators will be integrated. NOTE: Students wishing to take Statistics concurrently with another math course should consult their current instructor and obtain administrative approval. This option is intended only for students with a grade of 3.1 or higher in Algebra I planning to continue with higher level math courses.

Competencies:
C1: Students will understand how graphic displays can be used to summarize vast quantities of data.
C2: Students will understand how statistical models can be used to describe relationships between different phenomena.
C3: Students will understand that gathering data from samples can provide insight into populations.
C4: Students will understand how probability models can be used to predict future events.
C5: Students will understand how hypothesis testing provides insight into population characteristics.

College Algebra S1 (EC) (1123S1) Credit: .5
College Algebra S2 (EC) (1123S2) Credit: .5
Grade 12 (Grade 11 with approval) Graduation Requirement: Mathematics

PREREQUISITE: Final grade of "B" or higher in Algebra II. **There is an option for students to take this course as a dual credit class through NHTI's Early College program thus earning high school and college credit.** College Algebra is the standard math course taken by many college freshman, and includes traditional algebra topics such as linear, quadratic and higher degree equations; rational, radical, exponential, and logarithmic equations; graphs of functions; models and applications of functions; systems of linear equations; matrices, conic sections; sequences and series; trigonometry.

Competencies:
C1: Functions & Graphs- Students will understand how functions & their corresponding graphs can be used to model scientific & social phenomena, & to predict outcomes based upon a given variable; & to predict the value of an independent variable based upon a given outcome.
C2: Non-Polynomial Equations- Students will understand when non-polynomial equations can be used to model phenomena.
C3: Polynomial Functions- Students will understand how polynomial functions can be used to model economic, scientific, and geometric phenomena.
C4: Exponential & Logarithmic Functions- Students will understand that exponential & logarithmic functions can be used to model financial, growth, and decay phenomena.
C5: Systems of Equations & Matrices- Students will understand that systems of equations can be used to model real-life scenarios in which two or more quantities vary, and are dependent upon each other.
C6: Conic Sections- Students will understand how the conic sections of the parabola, ellipse, circle, and hyperbola can be used to model real-world phenomena such as cellular transmissions, satellite dishes, reflective light housings, etc.
C7: Sequences & Series- Students will understand that sequences and series can be used to show how populations (of money, bacteria, animals, etc.) grow and accumulate (or decline) over time.

Practical Math S1: Intro to Data Analysis (1135S1) Credit: .5
Grade 11 & 12 Graduation Requirement: Mathematics

PREREQUISITE: Successful completion of Algebra I and Geometry. Statistics and data analysis, which comprises the first semester, satisfies the graduation requirement that students complete 0.5 credit of a statistics or data analysis course. We will study statistical methods of describing qualitatively and quantitatively, data dispersion and center, the calculations which are used to compute these, and methods of examining real-world examples of how statistics is used to illustrate real-world phenomena.

Competencies:
C1: Students can evaluate statistical claims and form valid conclusions based on statistics and data.
C2: Based on data & displays, students can determine which statistical measures would be appropriate to summarize the data, and accurately calculate them.
C3: Students can calculate empirical and classical probabilities using the laws of probability, including conditional probability, and determination of sample spaces.
C4: Students can use models to make predictions, and can create models based on data.

Practical Math S2 (1135S2) Credit: .5
Grade 11 & 12 Graduation Requirement: Mathematics

PREREQUISITE: Successful completion of Algebra I and Geometry. Practical Math is designed as an alternative to Algebra II, and for Seniors whose post-graduate plans do not necessarily include attending college. In order to enroll in Practical Math, a student must have successfully completed Algebra I and Geometry. Practical Math focuses on essential skills such as use of and operations involving fractions, integers, and decimals, in addition to their practical applications. As a non-college preparatory class, many aspects of college-oriented math will not be covered.

Competencies:
C1: Based on real-world scenarios, students can use fractions and decimals to arrive at solutions, and can accurately measure to a specified level of accuracy.
C2: Students can perform calculations with ratios, proportions, and percents, and can convert from one form to another, including decimal numbers and fractions.
C3: Students can perform calculations using plane geometry, involving area, perimeter, basic trigonometry, and circular dimensions.
C4: Students can perform calculations using solid figures, including surface area, identification of solid figures, and volume calculations.

Skills Course: These need to be approved by the Director of Student Services or Case Manager

Individual Math (1107) Credit: 1
Grade 9-12 Graduation Requirement: Mathematics

PREREQUISITE: Recommendation by current math instructor and Special Education Department. The Pittsfield Middle High School's Individual Mathematics program is designed specifically for students with moderate to severe disabilities. This program focuses on the development of basic math skills as well as mathematical life skills that will be needed upon leaving Pittsfield Middle High School. Functional mathematical skills will be incorporated along with applying mathematical skills to everyday living situations. The individual math class will utilize the community, school, and kitchen setting.

SCIENCE

Three credits in science are required for graduation; Biology, Physical Science, and one additional credit in a science elective. NOTE: Selected science courses are divided into half-year segments.

(1303S1) Biology S1 (SciLab)
(1330S1) Intro to Chemistry and Waves S1 (MRC, SciLab)
(1305S1) Chemistry S1 (MRC, SciLab)
(1317) Intro to Earth Science (SciLab)
(1302) Environmental Science (SciLab)
(1307S1) Physics S1 (MRC, SciLab)
(1308) Electricity S1(SciLab)
(1337) Anatomy S1 (SciLab)

(1303S2) Biology S2 (SciLab)
(1330S2) Intro to Physics-Mechanics (MRC, SciLab)
(1305S2) Chemistry S2 (MRC, SciLab)
(1332) Technical Chemistry (SciLab)
(1315) Applied Physics I: Robotics (MRC, SciLab)
(1307S2) Physics S2 (MRC, SciLab)
(1309) Introduction to Engineering S2 (SciLab)
(1338) Physiology S2 (SciLab)

Biology Segment 1 **(1303S1)** **Credit: .5**
Biology Segment 2 **(1303S2)** **Credit :.5**
Grade 9-12 **Graduation Requirement: Biology, SciLab**

PREREQUISITE: Students must pass segment 1 of this course before moving on to segment 2. This course fulfills the NH state requirement of one life science credit for graduation. Biology covers the study of life from its chemical basis to the structure and function of the organism. Areas of study include Scientific Method, Chemistry of Life, Ecology, Cell Structure and Functions, Photosynthesis and Cellular Respiration, Mitosis/Meiosis, DNA, Genetics, Adaptations, and Human Body Systems. Students will understand and use scientific vocabulary and develop lab skills including making observations, experimentations, data analysis, and forming conclusions. Students will learn the proper use of lab equipment and will develop their organizational skills, ability to read within the content area and study skills.

Competencies Segment 1:
C1: Students will understand that people continually revise their understanding of their world by generating testable questions or defining problems, planning and conducting investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research processes and conclusions. (PACE Nature of Science, NGSS Science and Engineering Practices)
C2: Atom to Organism- LS1-1 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins, which carry out essential functions of life through systems of specialized cells. (Assessment Boundary: Assessment does not include identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis) LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. (Clarification Statement: Emphasis is on functions at the organism system level such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper amount of blood within the circulatory system.) (Assessment Boundary: Assessment does not include interactions and functions at the molecular or chemical reaction level.) LS1-3 Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. (Assessment Boundary: Assessment does not include specific gene control mechanisms or rote memorization of the steps of mitosis.)
C3: Presentation and Learning- Students will demonstrate the ability to synthesize their learning of

Biology and effectively communicate their learning to others.
Competencies Segment 2:
C1: Students will understand that people continually revise their understanding of their world by generating testable questions or defining problems, planning and conducting investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research process and conclusions. (PACE Nature of Science, NGSS Science and Engineering Practices)
C2: Genetics and Heredity- Students will be able to investigate the passing on of traits, and the ethical implications of scientific research.
C3: Ecosystems & Evolution- Students will be able to investigate the interactions, energy and changes of an ecosystem over time.
C4: Presentation of Learning- Students will demonstrate the ability to synthesize their learning of Biology and effectively communicate their learning to others.

Introduction to Chemistry and Waves (MRC) (1330S1) **Credit: .5**
Grade 10-12 **Graduation Requirement: Physical Science**

PREREQUISITE: None
This course meets one semester .05 credit of the 1.0 credit graduation requirement for Physical Science. It addresses many of the core state and national science standards related to chemistry and waves. It prepares students to take Chemistry, Technical Chemistry, and Physics courses. Chemistry is an expected high school course for most college admissions. The core chemistry concepts from this course are often fundamental to many trade school programs as well. Students in this course will develop and manipulate scientific diagrams and models. They will write logical classification arguments to describe the nature of substances. They will investigate patterns in the periodic table. They will research, model, and present how a technological device uses wave behaviors and interactions with matter to transmit and capture information and energy.

Competencies:
C1: Representation- Students will understand that the use of models and diagrams, the application of specific vocabulary and the organization of information help people to communicate more effectively. I can create and use original technical diagrams and models to represent abstract scientific concepts.
C2: Matter-Energy- Students will understand that matter and energy can neither be created nor destroyed, but can be stored, transferred, or transformed by physical, chemical, nuclear or biological means. I can identify and explain phase changes, chemical reactions, and heat transfer in terms of conservation of matter and energy.
C3: Types of Substances- Students will understand that substances have distinct physical and chemical properties, resulting from their atomic arrangements, which define how they interact with other substances. I can define, compare, contrast, classify, and diagram the following types of substances with respect to their atomic arrangements and properties: heterogeneous mixture, homogeneous mixture, suspension, solution, alloy, element, ionic compound, covalent compound.
C4: Periodic Table- Students will understand that substances have distinct physical and chemical properties, resulting from their atomic arrangements, which define how they interact with other substances. I can use a periodic table to describe the structure and properties of an element, and to identify an element given information about its structure and properties.
C5: Wave Device- Students will understand that the interaction of waves and matter causes many observable natural and human-made phenomena. I can develop and use a model to explain how a device uses principles of wave behavior and interactions to transmit and capture energy.
C6: Wave-Particle- Students will understand that the interaction of waves and matter causes many observable natural and human-made phenomena. I can cite and discuss evidence that

electromagnetic radiation can be described by either a wave or a particle model.

Introduction to Physics-Mechanics (SciLab) (1330S1) Credit: .5
Grade 10-12 Graduation Requirement:Physical Science

PREREQUISITE: Successful completion of Algebra I. This course meets one semester 0.5 credit of the 1.0 credit graduation requirement for Physical Science. It addresses many of the core state and national science standards related to physics, specifically mechanics and electromagnetism. It prepares students to take Chemistry and Physics courses. The core physics and math application concepts from this course are often fundamental to many trade school programs as well. Students in this course will develop, conduct and analyze lab experiments. They will apply the engineering cycle and the course concepts to design, construct, and improve a vehicle powered by a falling weight and a simple DC electric motor or AC generator. They will learn to communicate and solve problems involving mechanics and electricity equations, including changing units when needed.

Competencies:
C1: Experimenting- Students will understand that people continually revise their understanding of their world by generating testable questions and hypotheses, planning and conducting careful investigations, and evaluating the validity of results for supporting conclusions. I can design, conduct, and analyze controlled experiments.
C2: Problem Solving- Students will understand that mathematics is crucial to identification of evidence, analysis of data, and communication of scientific ideas. I can clearly communicate and correctly solve problems related to given basic physics equations including identifying values with units, choosing the correct equation, algebraically solving the equation for the unknown variable, converting units, and using a second method (graph, second equation, measurement technique, etc…) to obtain information as needed.
C3: Mechanical Energy- Students will understand that matter and energy can neither be created nor destroyed, but can be stored, transferred, or transformed by physical, chemical, nuclear or biological means. I can qualitatively and quantitatively describe how energy is transformed (especially related to gravitational potential, kinetic, and work) in a range of mechanical systems, including identifying unwanted forms of energy (inefficiency)
C4: Intro Mechanics- Students will understand that an unbalanced force acting on an object changes the motion of that object in predictable and explainable ways. I can apply kinematics, force diagrams, and Newton's Laws to describe, predict, and analyze the behavior of objects moving horizontally or vertically.
C5: EM- Students will understand that electricity and magnetism are two aspects of a single electromagnetic force, providing the basis for many modern technologies. I can apply concepts of static electricity, domain theory, electromagnetic induction, and electromagnetism to analyze observable phenomena.

Physics S1 (MRC) (1307S1) Credit: .5
Physics S2 (MRC) (1307S2) Credit: .5
Grade 11-12 Graduation Requirement: Science, SciLab

PREREQUISITE: Successful completion of Physical Science S2 or equivalent. (VLACS Physical Science is not sufficient) Successful completion or concurrently enrolled in Pre-Calculus. (College Algebra is not sufficient) Students in this full year course complete a semester or more of traditional physics coursework in mechanics and mechanical energy. They design, conduct, and analyze lab experiments, and they complete mathematical problem sets including application of vector mathematics and quadratics. In the second semester of this course, students complete a "Capstone" project demonstrating their ability to study a physics topic of their choice more independently. They

present their projects at the June Exhibition. Note that physics tends to be a smaller class each year, and is tailored to suit the post-secondary goals of the students involved. Students who wish to take an AP Physics or a Physics II class should discuss this with the teacher in the spring of the prior year.

Competencies:
C1: Nature of Science- Students will understand that people continually revise their understanding of their world by asking relevant questions, seeking related research, forming testable hypotheses, conducting careful investigations, analyzing data, and evaluating the validity of results in open dialogue among peers.
C6: Mechanics- Students will understand that unbalanced forces on everyday objects cause predictable and explainable changes in their motion, in accordance with F=ma and T=į alpha.
C3: Energy- Students will understand that energy can neither be created nor destroyed, but can be stored, transferred, or transformed.
C7: Physics Capstone- Students will demonstrate the ability to investigate and apply physics concepts to make predictions, solve problems, and analyze results on a topic of personal interest.

Applied Physics I: Robotics (MRC) (1315) Credit: .5
Grade 10-12 Graduation Requirement: Science, SciLab

PREREQUISITE: Successful completion of Physical Science Segment 2 or equivalent Physical Science mechanics coursework. In this project-based STEM course, students will develop their engineering method, programming skills, and understanding of gears. Students will design, construct, program, and analyze Raspberry Pi robots. Students will be required to maintain engineering journals for all projects, and there are summative exams on programming and gears. Unlike most courses, this class will not be a stand-alone face-to-face course. It is offered in independent study, blended learning, ELO, and combined course formats depending on the needs of students requesting it and the availability of the teacher. Therefore, the specific competencies of the course can be adjusted to meet the post-secondary goals of the student. Credits and scheduled time for the course can also vary. Advanced students may take a second level of this course for additional credit.

Competencies:
C1: Engineering Method- Students will understand that engineers use a cyclical problem solving method, including definition of the task, testing the prototypes, and communication of the solution.
C2: Computer Programming- Students will understand that computer programming control structures include conditional statements, loops, and functions/subroutines.
C3: Gears- Students will understand that gear trains provide a calculable mechanical advantage.
C4: Rotary-Linear- Students will understand that mechanisms like cams and rack gears can be used to convert rotary to linear motion, and vice versa.
C5: Obstacle Avoidance- Students will understand that basic algorithms for obstacle avoidance are essential to independent motion for robots.
C6: Structural Design- Students will understand that structural designs must consider engineering stresses such as tension and compression, and properties of the construction materials, to avoid structural failure.

Intro to Earth Science (1317) Credit: .5
Grade 10-12 Graduation Requirement: Science, SciLab

PREREQUISITE: Successful completion of Biology segment 1 or instructor approval. The four basic areas of Earth science are: Geology, Meteorology, Oceanography, and Astronomy. Today we live in a time when the Earth and its inhabitants face many challenges. Earth's climate is changing, society is

challenged to develop new sources of energy that will have minimal impact on climate and locate new sources of metals and other mineral resources as current sources are being depleted. Society must determine how Earth's increasing population can live and avoid serious threats such as volcanic activity, earthquakes, landslides, floods and more. These are just a sampling of the problems where solutions depend upon a deep understanding of Earth science.

Competencies:
C1: Students will understand that people continually review their understanding of their world by generating testable questions or defining problems, planning and constructing investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research process and conclusions. (PACE Nature of Science, NGSS Science and Engineering Practices) This is an open competency.
C2: Earth Systems- Students will analyze the interactions between the major systems (geosphere, atmosphere, hydrosphere, biosphere) that make up the Earth systems. This is a closed competency.
C3: The Solid Earth- Students will explain how scientists study and model the interior of the Earth and its dynamic nature. They will use the theory of plate tectonics, the unifying theory of geology, to explain a wide variety of Earth features and processes and how hazards resulting from these processes impact society. This is a closed competency.
C4: The Fluid Earth- Students explain how the ocean and atmosphere move and transfer energy around the planet and how these movements affect climate and weather and how severe weather impacts society. This is a closed competency.

Technical Chemistry **(1332)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Science, SciLab**

PREREQUISITE: Successful completion of Physical Science. This course is designed to introduce students to chemistry. It will take place in the classroom and laboratory. Lab safety is the top priority in this course. Topics include science processes, matter, periodic table, compounds, and bonding. Basic math, graphing, and writing skills are needed for problem solving and labs.

Competencies:
C1: Students will understand that people continually review their understanding of their world by generating testable questions or defining problems, planning and constructing investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research process and conclusions.
C2: Students will understand that the properties of matter and their interactions are a result of the structure of matter, and the elemental nature of matter is reflected on the periodic table.
C3: Students will demonstrate the ability to analyze the relationship among energy, chemical bonds, and chemical reactions.

Environmental Science **(1302)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Science, SciLab**

PREREQUISITE: Successful completion of Biology. This course is designed to introduce students to major ecological concepts and the environmental problems that affect the world in which we live. Topics include: biomes, ecosystems, the role of living things in ecosystems, pollution, overpopulation, and habitat destruction. Students will become aware of the interactions of people and their environment while investigating alternatives for protecting the environment and moving toward a sustainable future.

Competencies:
C1: Students will understand that people continually review their understanding of their world by generating testable questions or defining problems, planning and constructing investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research process and conclusions.
C2: Students will understand that ecosystems transfer energy and cycle matter.
C3: Students will understand that the interactions between biotic and abiotic factors will affect the survival of organisms and the ecosystem as a whole.
C4: Students will understand that the human species has an effect on the global ecosystem as well as the ability to support sustainability and manage current and future impacts.

Chemistry Segment 1 (MRC) **(1305S1)** **Credit: .5**
Chemistry Segment 2 (MRC) **(1305S2)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Science, SciLab**

PREREQUISITE: Successful completion of Algebra I, Physical Science (Seg1 and Seg 2). This course is designed to prepare students for a post-secondary chemistry course and to get students active in scientific inquiry. It will take place in the classroom and laboratory. Lab safety is the top priority in this course. Topics include: science processes, matter, periodic table, compounds, molecules, reactions, balancing equations, stoichiometry, and composing lab reports.

Competencies:
C1: Students will understand that people continually review their understanding of their world by generating testable questions or defining problems, planning and constructing investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research process and conclusions.
C2: Students will understand that the properties of matter and their interactions are a result of the structure of matter, and the elemental nature of matter is reflected on the periodic table.
C3: Students will demonstrate the ability to analyze the relationship among energy, chemical bonds, and chemical reactions.
C4: Students will understand that chemical processes are dynamic due to several factors including: the effects of temperature, concentration, and pressure on chemical reactions and the effects of the motions of atoms on chemical and physical processes.

Electricity **(1308)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Elective, SciLab**

PREREQUISITE: Completion of Physical Science S2. Students in this hands-on class will learn about how to generate electricity and how to wire electrical circuits. We will create different kinds of generators. We will learn about home electrical wiring. We will design and test electrical circuits to do fun things using motors and lights and buzzers and switches and circuit boards.

Competencies:
C1: Engineering- I can apply the engineering process in the context of EM devices. Students will understand that people continually revise their understanding of their world by generating testable questions and hypotheses, planning and conducting careful investigations, and evaluating the validity of results for supporting conclusions.
C2: Problem Solving- I can clearly communicate and correctly solve problems related to given basic electricity equations including identifying values and units, choosing the correct equation, algebraically solving the equation for the unknown variable, converting units, using other sources to

obtain information as needed. Students will understand that mathematics is crucial to the identification of evidence, analysis of data, and communication of scientific ideas.
C3: Energy- I can qualitatively and quantitatively describe how energy is transformed in electrical systems, including identifying unwanted forms of energy (inefficiency). Students will understand that matter and energy can neither be created nor destroyed, but can be stored, transferred, or transformed by physical, chemical, nuclear or biological means.
C4: EM- I can apply concepts of Ohm's Law, static electricity, domain theory, electromagnetic induction, electromagnetism, and electrochemical cells to create unique engineering solutions and to analyze observable phenomena. Students will understand that electricity and magnetism are two aspects of a single electromagnetic force, providing the basis for many modern technologies.

Introduction to Engineering S2 **(1309)** **Credit: .5**
Grade 11-12 **Graduation Requirement: Elective, LabSci**

PREREQUISITE: Successful completion of Physical Science S2. In this hands-on class, we will design and build various contraptions while learning about the engineering process. We will learn about different kinds of gearing, and basic circuit wiring and soldering. Do you want to design and race solar-powered and/or mousetrap-powered vehicles? Do you want to design and test trebuchets? Would you like to build a hovercraft or a pneumatic potato cannon?

Competencies:
C1: Engineering- I can apply and document the engineering process. Students will understand that people continually revise their understanding of their world by generating testable questions and hypotheses, planning and conducting careful investigations, and evaluating the validity of results for supporting conclusions.
C2: Physics Content- Students will demonstrate the ability to investigate and apply physics concepts to make predictions, solve problems, and analyze results on a topic of personal interest.
C3: Energy Conservation- I can qualitatively and quantitatively describe how energy is transformed in a range of systems, including identifying unwanted forms of energy (inefficiency). Students will understand that matter and energy can neither be created nor destroyed, but can be stored, transferred, or transformed by physical, chemical, nuclear or biological means.

Anatomy S1 **(1337)** **Credit: .5**
Grade 11-12 **Graduation Requirement: SciLab**

PREREQUISITE: Successful completion of Biology S2 and Introduction to Chemistry and Waves. Students will investigate the structure of the human body, including cells, tissue, and organs. Students will be required to complete dissections. This course is appropriate for students interested in becoming a massage therapist, butcher, nurse, x-ray technician, veterinary technician, doctor, etc.

Competencies:
C1: Students will understand that people continually review their understanding of their world by generating testable questions or defining problems, planning and constructing investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research process and conclusions.
C2: Students will understand that humans are multicellular organisms having a complex structural organization (anatomy) that leads to essential functions (physiology).
C3: Students will understand that the different organizational levels of the human body are specialized for the flow of energy and matter.

Physiology S2 **(1338)** **Credit: .5**
Grade 11-12 **Graduation Requirement: SciLab**

PREREQUISITE: Successful completion of Anatomy. Students will investigate the physiology of the human body. Learning activities will include differential diagnoses, and case studies. This course is appropriate for students planning to enter a health-related field.

Competencies:
C1: Students will understand that people continually review their understanding of their world by generating testable questions or defining problems, planning and constructing investigations using a variety of research, analyzing and interpreting data, reasoning with evidence to construct explanations, and effectively communicating the research process and conclusions.
C2: Students will understand that humans are multicellular organisms having a complex structural organization (anatomy) that leads to essential functions (physiology).
C3: Students will understand that the different organizational levels of the human body are specialized for the flow of energy and matter.
C4: Students will understand that body systems must balance complex factors to remain alive and functional.

SOCIAL STUDIES

Students must successfully complete a minimum of 3 credits of social studies for graduation. NOTE: Selected social studies courses are divided into half-year segments.

(1512S1) World History Segment 1*
(1531) Economics*
(1532S1) US History Segment 1*
(1530) American Government*
(1534) Government in Action

(1512S2) World History Segment 2*
(1533A) Global Issues A
(1532S2) US History Segment 2*
(1514) Psychology (EC)

*Required for graduation

World History Segment 1 **(1512S1)** **Credit: .5**
World History Segment 2 **(1512S2)** **Credit: .5**
Grade 9 **Graduation Requirement: World History**

World History focuses on developing a foundational understanding and conceptualization of world history. This course will give students an understanding of modern world history (from the year 0 to today) and will help students develop their critical thinking skills to better interpret current events and the modern lived experience. These critical thinking skills will be encouraged and developed through understanding the role of primary and secondary sources, historical comparisons, chronological reasoning, and logical argumentation. Content delivery will incorporate discussions about global situational awareness, poverty and wealth, war and conflict, and migration.

Competencies:
C1: Students will be able to develop compelling questions related to various aspects of social studies that drive thoughtful and authentic inquiry.
C2: Students will be able to apply their knowledge of concepts and tools related to civics, geography, economics, and/or history in order to engage in thoughtful inquiry.
C3: Students will be able to use a variety of tools and resources to gather, evaluate and synthesize

information from a variety of sources in order to make evidence-based claims in response to social studies related questions.
C4: Students will be able to engage in discourse by communicating their evidence-based conclusions using a variety of formats and methods and they will also be able to demonstrate the ability to give and receive feedback from adults and peers.
C5: Students will be able to apply their knowledge of social studies related concepts and issues to take informed actions.

Economics **(1531)** **Credit: .5**
Grade 10 **Graduation Requirement: Economics**

Economics is designed to inform students about basic economic concepts and for them to understand how economics affects individuals, businesses and the government. Students will study how limited resources are used to meet society's unlimited needs and wants including how goods and services are produced and distributed. Students will learn their role in the economic system as they study concepts of microeconomics and macroeconomics. The overall aim of the course is for students to make effective decisions as consumers, producers, savers, investors, and as citizens.

Competencies:
C1: Students will be able to develop compelling questions related to various aspects of social studies that drive thoughtful and authentic inquiry.
C2: Students will be able to apply their knowledge of concepts and tools related to civics, geography, economics, and/or history in order to engage in thoughtful inquiry.
C3: Students will be able to use a variety of tools and resources to gather, evaluate and synthesize information from a variety of sources in order to make evidence-based claims in response to social studies related questions.
C4: Students will be able to engage in discourse by communicating their evidence-based conclusions using a variety of formats and methods and they will also be able to demonstrate the ability to give and receive feedback from adults and peers.
C5: Students will be able to apply their knowledge of social studies related concepts and issues to take informed actions.

United States History S1 **(1532S1)** **Credit: .5**
United States History S2 **(1532S2)** **Credit: .5**
Grade 11 **Graduation Requirement: US History**

It is recommended that this course be taken in conjunction with English 11: American Literature. United States History is a program designed to help students develop academic/ and social skills needed for college while becoming more knowledgeable about our nation's past from the beginnings of democracy to the present. It will provide students with numerous opportunities to demonstrate an understanding and appreciation of our nation's history and heritage while clarifying and elaborating upon their understanding of significant historical concepts and information. Students will be expected to complete challenging reading, research, writing, and project assignments on time.

Competencies:
C1: Students will be able to develop compelling questions related to various aspects of social studies that drive thoughtful and authentic inquiry.
C2: Students will be able to apply their knowledge of concepts and tools related to civics, geography, economics, and/or history in order to engage in thoughtful inquiry.
C3: Students will be able to use a variety of tools and resources to gather, evaluate and synthesize

information from a variety of sources in order to make evidence-based claims in response to social studies related questions.
C4: Students will be able to engage in discourse by communicating their evidence-based conclusions using a variety of formats and methods and they will also be able to demonstrate the ability to give and receive feedback from adults and peers.
C5: Students will be able to apply their knowledge of social studies related concepts and issues to take informed actions.

Global Issues A **(1533A)** **Credit: .5**
Grade 10-12 **Graduation Requirement: Elective**

Global issues is a program for students who are fine-tuning their academic and social skills for admission to the college of their choice. Students will be expected to complete challenging reading, writing, research, problem solving, and project assignments each quarter. Students will complete inquiry based on learning projects, will research weekly current events, and will participate in group discussions about issues that are impacting the world around us.

Competencies:
C1: Students will be able to develop compelling questions related to various aspects of social studies that drive thoughtful and authentic inquiry.
C2: Students will be able to apply their knowledge of concepts and tools related to civics, geography, economics, and/or history in order to engage in thoughtful inquiry.
C3: Students will be able to use a variety of tools and resources to gather, evaluate and synthesize information from a variety of sources in order to make evidence-based claims in response to social studies related questions.
C4: Students will be able to engage in discourse by communicating their evidence-based conclusions using a variety of formats and methods and they will also be able to demonstrate the ability to give and receive feedback from adults and peers.
C5: Students will be able to apply their knowledge of social studies related concepts and issues to take informed actions.

American Government **(1530)** **Credit: .5**
Grade 12 **Graduation Requirement: American Government**

The American Government course is designed to enlighten students about our nation's government structure, functions, and processes. Students will learn what it means to be a responsible and knowledgeable citizen and understand the importance of participating in the political process. The course will focus on the purpose of government and principles which laid the foundation for the United States Constitution. In addition, students will learn the role of the branches of government and how they interact with the government system. The overall aim of the course is for students to gain a stronger understanding of the American government system and their role as citizens in public affairs.

Competencies:
C1: Students will be able to develop compelling questions related to various aspects of social studies that drive thoughtful and authentic inquiry.
C2: Students will be able to apply their knowledge of concepts and tools related to civics, geography, economics, and/or history in order to engage in thoughtful inquiry.
C3: Students will be able to use a variety of tools and resources to gather, evaluate and synthesize information from a variety of sources in order to make evidence-based claims in response to social studies related questions.

C4: Students will be able to engage in discourse by communicating their evidence-based conclusions using a variety of formats and methods and they will also be able to demonstrate the ability to give and receive feedback from adults and peers.
C5: Students will be able to apply their knowledge of social studies related concepts and issues to take informed actions.

Government in Action **(1534)** **Credit: .5**
Grade 12 **Graduation Requirement: Elective**

Government in Action is an elective course designed for students with an interest in politics and deepening their understanding as citizens of the United States. The course will focus on analyzing presidencies of the past, prominent figures in American politics, as well as current happenings within the political sphere. The culmination of this course is an action civics project: Issues to Action.

Competencies:
Competencies:
C1: Students will be able to develop compelling questions related to various aspects of social studies that drive thoughtful and authentic inquiry.
C2: Students will be able to apply their knowledge of concepts and tools related to civics, geography, economics, and/or history in order to engage in thoughtful inquiry.
C3: Students will be able to use a variety of tools and resources to gather, evaluate and synthesize information from a variety of sources in order to make evidence-based claims in response to social studies related questions.
C4: Students will be able to engage in discourse by communicating their evidence-based conclusions using a variety of formats and methods and they will also be able to demonstrate the ability to give and receive feedback from adults and peers.
C5: Students will be able to apply their knowledge of social studies related concepts and issues to take informed actions.

Psychology (EC) **(1514)** **Credit: .5**
Grade 10-12 **Graduation Requirement: Elective**

Psychology is an elective course designed to introduce students to the subject of psychology. Topics covered will include the history of psychology, psychology as a profession, research and experimental design, personality development, learning theory, sensation and perception, clinical psychology, and social psychology. There will be a great deal of reading and completion of various study guides and seminar discussions on these topics. For those with an interest in the behavioral sciences and are not afraid to work, this class is for you.

Competencies:
C1: Developing Questions and Planning Inquiries- Students will be able to develop compelling and supporting questions related to various aspects of social studies that drive thoughtful and authentic inquiry.
C2: Applying Disciplinary Concepts and Tools- Students will be able to apply their knowledge of concepts and tools related to civics, geography, economics, and/or history in order to engage in thoughtful inquiry.
C3: Evaluating Sources and Using Evidence- Students will be able to use a variety of tools and resources to gather, evaluate and synthesize information from a variety of sources in order to make evidence-based claims in response to social studies related questions.
C4: Communicating Conclusions- Students will be able to engage in discourse by communicating

their evidence-based conclusions using a variety of formats and methods and they will also be able to demonstrate the ability to give and receive feedback from adults and peers.
C5: Taking Informed Action- Students will be able to apply their knowledge of social studies related concepts and issues to take informed actions.
C6: Speaking and Listening- Students will demonstrate the ability to listen and view critically and to speak purposefully and effectively.

WORLD LANGUAGE

VLACS World Languages **Variable Graduation Requirement: Elective**

Students can enroll in a world language course through the Virtual Learning Academy Charter School (www.vlacs.org). They will work through their online lessons with a VLACS instructor with support from the Online Learning Coordinator at PMHS. Available languages through VLACS include French, German, Latin, Mandarin, Chinese, and Spanish. Through the completion of VLACS coursework students will be able to earn up to two World Language credits in their chosen language.

OTHER COURSES

Guided Study **(1784)** **No Credit**
Grade 9-12

Guided Study is available to students who require a focused and monitored study period. Guided Study is supervised by teachers who will assist students with classes they need extra help with. Students will also learn organizational skills and research tools. Senior release will not be allowed during Guided Study.

Life Skills S1 (MRC) **(1800F)** **Credit: .5**
Life Skills S2 (MRC) **(1800)** **Credit: .5**
Grade 9-12 **Graduation Requirement: MRC, Elective**

PREREQUISITE: Recommendation by the Special Education Department. The Pittsfield Middle High School Life Skills program is designed specifically for students with moderate to severe disabilities. The program focuses on the development of transitional skills as well as developing connections with the community for future volunteer and or job opportunities after leaving high school. Academic skills will be incorporated along with community skills, self-management skills, daily living skills, cooking skills, and employment skills for students. The Life Skills program will utilize the community, school, and kitchen setting.

Driver Education **(0600)** **Credit: .25**
Graduation Requirement: Elective

It is the responsibility of each student to submit a copy of their certificate of completion to the Guidance Administrative Assistant in order to receive credit.

STATEMENT OF NON DISCRIMINATION

Applicants for admission and employment, students, parents, employees, sources of referral of applicants for admission and employment, and all unions or professional organizations holding collective bargaining or professional agreement with the Pittsfield School District are hereby notified that the district does not discriminate on the basis of race, creed, color, national origin, disability, sex, marital status, age and/or sexual orientation in admission or access to, or treatment of employment in its programs and activities. Any person having inquiries or complaints concerning the school district's compliance with the district's Non-Discrimination policy or written regulations implementing Title VI (discrimination on the basis of race, color or national origin), Title IX (sex discrimination), or Section 504 (discrimination on the basis of disability) and/or the Americans with Disabilities Act is directed to contact the Director of Student Services, Pittsfield Middle High School, 23 Oneida Street, Pittsfield, NH 03263. The Director of Student Services had been designated by the Pittsfield School District to coordinate the District's efforts to comply with the District's above-stated Non-Discrimination policy and regulations implementing Title VI, Title IX, and Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, and State Law.

Since 1980, the Concord Regional Technical Center (CRTC), has helped students from 12 area high schools earn a tremendous head start towards developing and implementing their college and career plan. CRTC graduates stand out to college and military recruiters, employers, and career professionals, due to the high level of preparation and real-world education provided to students. As part of our mission, vision and core beliefs, the CRTC utilizes a Career Pathway model to help students reach their goals in the most strategic manner possible. The advantages in attending the CRTC are including but not limited to:

- Engaging in meetings, internships, and job shadows with career professionals
- Earning nationally recognized industry certificates and/or licensure
- Completing college classes (with transcripts) deeply discounted or at no cost
- Acquiring (with evidence) industry-ready technical skills
- Demonstrating (with evidence) employability/workplace-ready professional skills
- Attaining targeted, career-specific writing, presentation, and math skills
- Working in an entry-level position in the industry
- Developing the beginnings of a professional network

APPLICATION PROCESS

Unlike most courses in high school, students are required to apply to their desired CRTC program. The application, available at theCRTC.org, involves students telling us a bit about themselves. We also review attendance, transcripts, and other information as part of this process.

Timelines

January	Application process begins online
Late February	Majority of CRTC applicants apply
Mid-April	Students are notified of their status

PROGRAMS/CLASSES

Year I	Year II*	Year III
Automotive Technology I	Automotive Technology II	Customized CRTC+ program
Business I	Business II	
Computer Engineering I	Computer Engineering II	
Construction Trades I	Construction Trades II	
Cosmetology I	Cosmetology II	
Criminal Justice I	Criminal Justice II	
Culinary and Pastry Arts I	Culinary and Pastry Arts II	
Education and Behavioral Science I	Education and Behavioral Science II (2 Strands): Education or Behavioral Science	
Emergency Services I	Emergency Services II - EMT (Fire I off site)	
Graphic Design and Creative Media I	Graphic Design and Creative Media II	
Health Science I	Health Science II (3 strands): LNA, Sports Medicine, or ELO	
Theater and Film: Acting I	Theater and Film: Acting II	
Theater and Film: Production & Design I	Theater and Film: Production & Design II	

***Acceptance to Year II is competitive and students are invited to return based on their Year I performance.** If you start as a sophomore, you will have the opportunity to customize your 3rd year through our CRTC+ program.

COLLEGE CREDIT OPPORTUNITIES

Many of the CRTC's programs offer the option to earn college credits while in high school through partnerships with the Community College System of NH (CCSNH). With these programs, students earn college credit and get a jump start on college requirements. These opportunities can mean savings for students' post-high school career preparation. These include:

Early College At Your High School courses are CCSNH courses taught by high school teachers with college-level credentials using a college syllabus and course materials. These courses are taken as a part of the student's daily CRTC class schedule and successful students earn both college and high school credits.

Early College On a College Campus enables high school students to take on-campus CCSNH courses at half the regular tuition rate. Much like Early College At Your High School, students can earn both high school and college credit, which saves them money by giving them a jumpstart on college graduation requirements.

Early College Online is an online dual credit program that enables high school students to take community college courses for dual high school AND college credit. Courses offered through the Early College Online program are 100% online college courses.

Early College Scholarships allow sophomores, juniors and seniors (as well as home educated students age 15 and older) to engage in Early College At Your High School and Early College On a College Campus to take up to two college courses per

academic year tuition free (although there may be additional costs for books and course materials).

Articulation Agreements for a CRTC course mean that the partnering postsecondary school has determined that the high school course is comparable to one of its own courses. This allows completing students to get college credit either for the course or for an independent study, and/or to go directly into the more advanced courses when they reach college.

INDUSTRY RECOGNIZED CREDENTIALS

CRTC programs provide students with a competitive edge by weaving college and career readiness activities into the curriculum, and by connecting most students to opportunities to earn industry-recognized certifications and professional licensure. These certifications help our students enter the workforce a step ahead of the competition and more prepared for their chosen jobs and careers.

WORK-BASED LEARNING

As part of their CRTC program, students will have the opportunity to participate in various work-based learning activities. These will range from guest speakers and presenters to job shadows and tiered internship opportunities that may lead to certifications and employment. Each year II student will have a sustained applied experience that will expose them to authentic work environments and expand their knowledge about career pathways. CRTC teachers and staff have established relationships with industry partners and will support students to identify and connect with new businesses as well. CRTC+ students can build in-depth experiences that often incorporate advanced work-based learning.

PROFESSIONAL SKILLS

CRTC focuses on helping students develop and improve both professional (employability) skills and technical skills. We take pride in establishing performance targets that are valued by our industry and post-secondary educational partners. CRTC specifically defines and measures the following professional skills for every student: **Collaboration, Communication, Innovation, and Self-Direction**.

All students are expected to demonstrate the best of these skills. Many of our students earn the opportunity to complete an internship or job shadow experience, where possessing effective professional skills is a non-negotiable requirement, given that students will be interacting with the partner's valued customers, clients, and employees. Students succeed at CRTC when they understand these expectations and strive for success.

PROGRAMS/COURSE DESCRIPTIONS

Note: Some CRTC courses cover common and accepted competencies associated with national and state-based standards for certain subject areas. In courses that meet these standards, students could receive elective credit towards graduation expectations. Students who want to pursue elective credit in their CRTC course should meet with their school counselor to discuss their options and how it will align with their graduation plan.

AUTOMOTIVE TECHNOLOGY I – CT1023

90-minute classes 5 Days/Week, Full Year 2 Credits

This course covers the fundamentals of automotive brakes, engine repair, and steering & suspension. Students will start the program learning about shop mechanical safety and pollution control where they will earn certifications from SP2. Next, they will learn proper usage of industry-standard tools, equipment, and precision measuring instruments. Students learn the theory and science behind the brakes, engine, and steering & suspension systems. Students will apply theory in practical lab experiences. Upon completing each unit, students will have the opportunity to take ASE tests.

CRTC Application Required
Suggested Prerequisite Courses: Algebra, Geometry
Certifications: 8 ASE (Automotive Service Excellence), Snap-On Solus Pro Scan Tool, Snap-On 504 Electrical Meter, S/P2 Mechanical Safety and Pollution Control Certificates

AUTOMOTIVE TECHNOLOGY II – CT1033

90-minute classes 5 Days/Week, Full Year 2 Credits

This course emphasizes diagnosis of electrical systems, engine management & emission systems. Students will also perform maintenance and repairs to the brake, engine, heating & air conditioning, and steering & suspension systems in a live shop environment. All Automotive Technology II students are required to participate in an internship based on shadowing a technician at a local dealership. Students will have the opportunity to take 5 ASE tests: Automatic Transmission, Manual Transmission, Engine Performance, Electrical, Heating & Air Conditioning. After completing the Automotive Technology II program, the student will have all the basic skills required to start working as an entry- level automotive technician or enter a post-secondary school's Automotive Technology Program.

Required Prerequisite: Successful completion of Automotive Technology I and teacher recommendation
Suggested Prerequisite Courses: Algebra, Geometry
College Courses (through partnership with Manchester Community College):
Introduction to Automotive Services
Certifications: 8 ASE (Automotive Service Excellence), Snap-On Solus Pro Scan Tool, Snap-On 504 Electrical Meter, S/P2 Mechanical Safety and Pollution Control Certificates

BUSINESS I - CT1751

90-minute classes 5 Days/Week, Full Year 2 Credits

This course is designed to increase your understanding of the principles and practices of accounting, finance, entrepreneurship, business ethics and marketing. Students will develop a business and marketing plan utilizing skills in decision making, research, ethics, and price determination. Students will also learn skills associated with electronic spreadsheets such as developing workbooks, formulas and functions, and charts. Students will participate in academic competitions through FBLA, engage in leadership

development, and will immerse themselves in business-level expectations from presentation skills to dress.

CRTC Application required
College Courses (through partnership with NHTI): PC Applications
Certifications: Microsoft Office Specialist: Excel Associate, QuickBooks Certified User (QBCU)
Membership: Future Business Leaders of America (FBLA)

BUSINESS II –
90-minute classes 5 Days/Week, Full Year 2 Credits

This course will allow students to more deeply explore the areas of specialization in the business field which can include business management, marketing, entrepreneurship, and finance. Students will develop an understanding of organizational structures and the role of leaders within these structures. This course will provide a deeper development of skills with spreadsheets such as pivot tables, graph creation, and database management techniques. Students will participate in academic competitions through FBLA, meet industry leaders, participate in work-based learning experiences and explore postsecondary business educational opportunities.

Suggested Prerequisite Courses: Successful completion of Business I and teacher recommendation
College Courses (through partnership with NHTI): Principles of Management, Spreadsheets
Membership: Future Business Leaders of America (FBLA)

COMPUTER ENGINEERING I CT1187
COMPUTER ENGINEERING II CT1197
90-minute classes 5 Days/Week, Full Year 2 Credits

The Computer Engineering I and II curriculum includes one year of AP level Computer Science Principles and one year of Engineering for Robotics and Automation (including design, build, program, and test). There is significant emphasis on programming logic and strategies for computer applications, as well as engineering processes and programming applied to industrial robots and automated machinery (CNC). This program combines skills and competencies related to computer science such as advanced manufacturing, machining, mechatronics, and information technology into a comprehensive program.

For Computer Science Principles, we emphasize ethics, global impacts of computing, abstraction, algorithm development, big data, the Internet, cyber security, and programming languages (Python, C, C#, HTML5, CSS, JavaScript, and explore SQL

and PhP). The Advanced Placement Computer Science Principles course is taught with additional hardware, networking, and cyber security activities and/or projects.

During the Engineering year, the course focuses on engineering automated industrial systems to manufacture products using robotic arms and CNC milling. This is supported by applying related engineering processes (safety, design concepts, print reading, metrology, electronics, pneumatics, mechanics, and quality assurance concepts) following the PLTW Computer Integrated Manufacturing curriculum. Students develop CAD/CAM programs for a variety of automated machines.

Computer Engineering I: CRTC Application required
Computer Engineering II Suggested Prerequisite: Students must successfully complete Computer Engineering I and receive teacher recommendation.
Suggested Prerequisite Courses: Algebra I & II
Advanced Placement (AP): AP Computer Science Principles
College Courses (through partnership with Manchester Community College): Robotic Design, Manufacturing Processes, Engineering Printing Reading, Web Programming, Intro to Computer Science, intro to Python, Intro to Cybersecurity
Certifications: OSHA-10 Hour Card

CONSTRUCTION TRADES I – CT1083

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course students will explore a variety of skills in the construction trades including electrical and plumbing. To build the foundation, the first focus is on safety skills and the use of tools. Students learn system functions, terminology, and industry standards. They will learn theory and then engage in extensive hands-on activities related to the specific disciplines, making use of the lab which includes a twenty-room, two-story house. There will be various opportunities for students to engage with and learn from industry professionals through guest presenters and work-based learning experiences.

CRTC Application Required
Suggested Prerequisite Courses: Algebra, Geometry
College Courses (through partnership with Manchester Community College): Intro to HVAC Systems, Related Electricity I, Related Electricity II (These are optional courses that students can take if interested in HVAC pathway through Manchester Community College)
Certifications: S/P2 Construction

CONSTRUCTION TRADES II – CT1093

90-minute classes 5 Days/Week, Full Year 2 Credits

This course will continue to sharpen students' skills in the construction trades. Students will participate in OSHA training and receive a ten-hour OSHA card. Students will also further their studies in other specific trades which they did not learn in their first year including welding, masonry, and carpentry. They learn how to use MIG welders safely

and practice welding techniques. They complete the course by building 8x12 sheds that are sold to customers. Students gain exposure to a wealth of post-secondary opportunities including college, apprenticeship programs and work opportunities. Students will hear from experts in the field and have opportunities to participate in work-based learning.

Required Prerequisite: Successful completion of Construction Trades I and teacher recommendation
Suggested Prerequisite Courses: Algebra, Geometry
College Courses (through partnership with Manchester Community College): Intro to HVAC Systems, Related Electricity I, Related Electricity II (These are optional courses that students can take if interested in HVAC pathway through Manchester Community College)
Certifications: OSHA 10-Hour

COSMETOLOGY I – CT1403

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course students are exposed to a blend of classroom instruction and hands-on learning experiences using human hair manikins in a simulated salon environment. Students learn a variety of hairstyling techniques, shampooing and scalp massage, nail care, and infection control. Students will learn how to apply the art and science of cosmetology to all aspects of the trades, including hair styling, scalp care, shampooing, and nail care. Our program explores a variety of careers in this large and diverse field of study. Students will need to purchase an Internship License, uniform, and a personal cosmetology tools/supplies kit. There is financial aid available for approved circumstances.

CRTC Application Required
Suggested Prerequisite Courses: Biology, Art (Color Theory)
College Credits: Students from our program are credited up to 360 of the 1,500 hours required to earn their NH State Cosmetology License upon successful completion of the competency exam (taken before starting a cosmetology program).
Certifications: SP/2: Cosmetology, Build A Resume, Bullying in the Work Environment, Ethics and YOU in the Cosmetology Industry, Land That Job: Interview Skills for Cosmetology Students, Cuccio Gel Veneer Nail

COSMETOLOGY II – CT1413

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course students gain new skills in the areas of skin care, hair cutting, beard grooming, and color and perms. In addition, students are exposed to the business side of cosmetology and will gain knowledge with industry experts through our mentoring program and will have the opportunity to work directly with customers in our salon. Upon successful completion of this two-year program and the state competency exam,

students will be able to transfer their hours to a post-secondary school. It is recommended that second-year students purchase additional tools and supplies.

Required Prerequisite: Successful completion of Cosmetology I and teacher recommendation
Suggested Prerequisite Courses: Biology, Art (Color Theory)
College Credits: Students from our program are credited up to 360 of the 1,500 hours required to earn their NH State Cosmetology License upon successful completion of the competency exam (taken before starting a cosmetology program).
Certifications: SP/2: Cosmetology, Build A Resume, Bullying in the Work Environment, Ethics and YOU in the Cosmetology Industry, Land That Job: Interview Skills for Cosmetology Students, Cuccio Gel Veneer Nail, Dermalogica

CRIMINAL JUSTICE I: Intro to Criminal Justice – CT1225

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course students will gain an overall understanding of the Criminal Justice system, including law enforcement, court systems, juvenile justice, and the corrections system. Students learn the history and theory of criminology and the historical origins and development of criminal law, as well as the constitutional issues. Students will have regular contact with professionals from law enforcement, the court system, juvenile justice, and corrections. In addition to classroom work, students will receive practical experience through crime scene investigation, role-playing, mock trials, hiring boards, background investigations, and field trips to local criminal justice agencies and correctional facilities.

CRTC Application Required
College Courses (through partnership with NHTI): Intro to Criminal Justice
Certifications: Healthcare Provider CPR & AED, FEMA ICS-100 LEB Introduction to Incident Command System, FEMA ICS-700 Introduction to Incident Command Systems, National TIMS Training Certificate, TIMS For the Next Generation

CRIMINAL JUSTICE II: Criminal Law - CT1226

90-minute classes 5 Days/Week, Full Year 2 Credits

This course focuses on all aspects of the criminal justice system including legislative, law enforcement, courts, and corrections. Students study case law for major historical court cases and see them through the lens of the entire system and in the context of current events. Students will continue with practical learning around criminal procedures and processes including crime scenes, forensics, investigation, arrests, and trial preparation. The course will also explore the complex themes related to criminal justice. Regular guest speakers from industry and colleges will provide authentic information about the many pathways available to students in this field. Students will engage in tactical and fitness training.

Required Prerequisite: Successful completion of Criminal Justice I and teacher recommendation
College Courses (through partnership with NHTI): Criminal Law
Certifications: OSHA SafeResponse Emergency Operations, OSHA SafeResponse Incident Command Systems, OSHA SafeResponse Unified Command

CULINARY & PASTRY ARTS I – CT1144

90-minute classes 5 Days/Week, Full Year 2 Credits

This course is designed to educate students to meet the ever-increasing demands of the food service industry. It will provide realistic hands-on experience in the principles of working in and operating a kitchen/dining room through the operation of our own Gratitude restaurant. This course combines education and training for both the culinary and baking industries. Students will learn safety and sanitation, health & science, use and care of the equipment, recipe terminology, measurements and equivalents, and customer service techniques. The course also covers quantity preparation techniques for pantry station, short-order station, stock, soup, and sauce station, vegetable station and bakery station. Food service computer experiences are incorporated throughout the year.

CRTC Application Required
Suggested Prerequisite Courses: Algebra
Certifications: ServSafe Essentials, ServSafe- Allergen certification, ProStart Level I

CULINARY & PASTRY ARTS II – CT1154

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course students gain advanced training in food service skills with an emphasis on management skills. This course provides the opportunity to obtain knowledge and experience needed for entry into post-secondary education courses or jobs within the food service industry. This ProStart certified course emphasizes safety procedures and introduces menu design and nutrition, health & chemistry, food service math skills, recordkeeping, purchasing and receiving, quantity and cost controls, poultry, meats, fish, and international cuisines. Students undertake the management responsibilities of kitchen supervisor, dining room supervisor, storeroom supervisor, menu planner, and buyer.

Required Prerequisite: Successful completion of Culinary and Pastry Arts I and teacher recommendation
Suggested Prerequisite Courses: Algebra
College Courses (through partnership with Lakes Region Community College): Bakery Production, Culinary Fundamentals, Sanitation and Safety
Certifications: ServSafe Management, ProStart level II

EDUCATION & BEHAVIORAL SCIENCE I – CT1004

90-minute classes 5 Days/Week, Full Year 2 Credits

This course is for students interested in pursuing a career in one of the following pathways: education, behavioral science, and special education or related services. The Education & Behavioral Science (EBS) program is designed to prepare students for careers in education or mental health. Students will learn how to help others grow academically, socially, and emotionally. Students will become familiar with how individuals develop and learn. They will also gain essential skills including how to manage behaviors, create a positive environment and communicate effectively. Students will have the opportunity to have a fieldwork experience in a classroom.

CRTC Application Required
Suggested Prerequisite Skills and Traits: Ability to communicate, collaborate with peers, work independently, organization, critical thinking, adaptability, and a passion to help children and families.
College Credits (through partnership with NHTI): Foundations of Education, The Helping Relationship: Interpersonal Communication Skills for Today's Professional**,** Human Growth and Development (working with Education Department), Introduction to Psychology
Certifications: Connect Youth Leader Training, FERPA 101 for Local Agencies, HIPAA
Membership: Educators Rising

EDUCATION & BEHAVIORAL SCIENCE II– CT1014

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course, students will take a deep dive into the career pathway that aligns with their future goals by choosing to participate in either the **(1) Education Strand** or **(2) Behavioral Science Strand**. In both strands, students will participate in fieldwork at sites aligned with their career interest.

(1) Education Strand includes careers in education and special education & related services like occupational therapy and speech and language pathology. Students in the education strand will further their understanding of how educators plan for and instruct diverse populations of students effectively. The Education strand focuses on Universal Design for Learning and students learn about special education laws and practices and the impact of family and culture on individuals. Class units include exceptionalities in children, Individual Education Plans, instructional strategies, culture, the impact of poverty, and family dynamics. The EBS II Education strand is an approved pre-apprenticeship program for the Educator Apprenticeship through the US Department of Labor.

(2) Behavioral Science Strand includes careers in the fields of psychology, social work, and counseling. Education & Behavioral Science II students in the behavioral science strand will further their understanding of how those in the mental health field support diverse populations of people effectively. EBS II behavioral science strand focuses on the neuroscience of mental and behavioral health, including disorders and diagnoses.

Class units include four stages of mental health recovery, the history of mental and behavioral health, the meaning of and importance of cultural competence in supporting individuals and families.

Required Prerequisite: Successful completion of Education and Behavioral Science I and teacher recommendation.
College Credits (through partnership with NHTI): Intro to Exceptionalities (Education Strand), Cross Cultural Education Seminar (Education Strand), Psychological Disorders and Mental Health (Behavioral Science Strand), Social Psychology (Behavioral Science Strand)
Certifications: Teen Mental Health First Aid, Universal Design for Learning Level 1, Connect Youth Training
Membership: Educators Rising

EMERGENCY SERVICES I – CT1135

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course, students build the foundation for a career as a first responder to medical, fire and other emergency situations learning from active career-professionals. Emergency Services I students receive training and get tested on actual NH Firefighter I and EMT-Basics units. The goal is for students to prepare themselves and gain an understanding of their readiness for our year II program which involves potential to earn EMT-Basic certification.

This course is not taught by one teacher, but rather by a set of active working paramedics, EMTs and firefighter instructors. While this arrangement gives the class an unmatched degree of authenticity, it does push students to adapt to having different instructors and their styles.

CRTC Application Required
College Courses (through partnership with Lakes Region Community): Introduction to Emergency Services
Certifications: First Aid/CPR – Provider Level

EMERGENCY SERVICES II – CT1137

90-minute classes 5 Days/Week, Full Year 2 Credits

This course will follow the curriculum for the EMT National Registry in both theory and practice and prepare students for the national Emergency Medical Technician – Basic (EMT-B) certification exam. The content will cover topics such as Airway Management, Patient Assessment, Medical Emergencies, Trauma Emergencies, Pediatric Emergencies, and EMS Operations. Students will participate in ride-alongs with local fire departments and emergency personnel as part of their training.

Required Prerequisite: Successful completion of Emergency Services I and teacher recommendation

Certifications: EMT – Basic

GRAPHIC DESIGN & CREATIVE MEDIA I – CT1043

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course, students will learn graphic design principles, technical composition, graphic design codes, vector graphics, photo editing, color theory, digital illustration, and typography. Students work in a professional, cutting-edge design lab with state-of-the-art computers, digital drawing tablets (Cintiqs), an embroidery machine, and a direct-to-garment printer.
Students learn to use Adobe software such as Photoshop, Illustrator, InDesign, Premier and will learn how to create professional files in different formats. In addition to print media, students will also be exposed to creative media avenues which includes video production, and motion graphics. Students will explore and identify career opportunities in the graphic design field as well as engage in portfolio preparation.

CRTC Application Required
Suggested Prerequisite Courses: Art (Color Theory), Computer Courses, Geometry
College Courses (through partnership with Manchester Community College and NHTI): Digital Imaging (MCC), Introduction to Photoshop (NHTI), Page Layout & Design (MCC), Computer Illustration (MCC)

GRAPHIC DESIGN & CREATIVE MEDIA II – CT1053

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course students continue to expand skills for producing industry ready communications such as graphic design principles, creative expression, portfolio creation, web development, and project management skills. Every project goes through industry standard peer critiques. Students further develop direct-to-garment printing skills by helping run our in-house t-shirt printing business. The key skills emphasized in this course are a mix of technical and professional skills, and real-life working experiences as students learn how to adapt and meet customer needs, work in teams, and generally accept critique.
Students will prepare for and complete internationally recognized Adobe Associate Certifications in Photoshop, Illustrator, InDesign, and Premiere. Opportunities for internships, freelance and job shadows are provided as a necessary pathway for career development and success. Students also have an opportunity to develop the technical skills and knowledge necessary to obtain entry level employment in the graphic design industry, as well as be prepared for post-secondary training.

Required Prerequisite: Successful completion of Graphic Design and Creative Media I and teacher recommendation
Suggested Prerequisite Courses: Art (Color Theory), Computer Courses, Geometry

College Courses (through partnership with Manchester Community College and NHTI): Digital Imaging (MCC), Introduction to Photoshop (NHTI), Page Layout & Design (MCC), Computer Illustration (MCC)
Certifications: Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Adobe Premiere

HEALTH SCIENCE I – CT1123

90-minute classes 5 Days/Week, Full Year 2 Credits

In this course students will learn about job opportunities in the health profession and explore topics in anatomy and physiology, medical terminology, infection control, safety and blood borne pathogen training and how healthcare systems work. Students will have hands-on experiences with medical equipment in the classroom. Classroom activities will include some dissection. Students will be able to perform vision screenings, take vital signs (blood pressure, temperature, pulse, and respirations), and demonstrate gown-and-gloving technique and proper use of body mechanics. Students successfully completing Health Science I will demonstrate competencies in accordance with National Health Care Skills Standards. Students considering any career in the healthcare field such as physician, nurse, physical therapist, athletic trainer, dental hygienist, veterinarian, or pharmacist would greatly benefit from this course.

CRTC Application Required
College Credits (through partnership with NHTI): Medical Terminology
Certifications: Healthcare Provider First Aid/CPR & AED
Membership: Health Occupations Students of America (HOSA) – Future Health Professionals

HEALTH SCIENCE II – CT1133

90-minute classes 5 Days/Week, Full year 2 Credits

Health Science II continues with the completion of studies in anatomy and physiology. Students will then begin training for their chosen pathway: **(1) Licensed Nursing Assistant (LNA), (2) Sports Medicine, or (3) Extended Learning Opportunity (ELO)**.

(1) LNA Pathway: Students may be required to attend some evening and weekend clinical experiences to earn licensure. Students earn a license when they demonstrate all competencies outlined for the program in the Standard Competency Profile and those in accordance with National Health Care Skills Standards and pass the National Licensure Exam.
(2) Sports Medicine Pathway: In this pathway, students will incorporate the anatomy and physiology they have learned and apply it to human movement, injury prevention, and training principles. Students will learn skills related to emergency care, taping and wrapping of injuries, and concussion protocols. Students will participate in work-based learning in orthopedics, physical therapy, and athletic training.

(3) ELO Pathway: Students will build a customized learning plan that aligns with their specific career goals in the medical field and participate in Early College coursework and work-based learning experiences that support those goals. Students do not attend class each day instead they participate in ELO experiences and keep a weekly log to reflect on their work.

Required Prerequisite: Completion of Health Science I and teacher recommendation
College Credits (through partnership with LRCC and MCC): Nursing Assistant (LRCC), Essentials of Exercise Science (MCC)
Certifications: Stop the Bleed
License: LNA
Membership: Health Occupations Students of America (HOSA) – Future Health Professionals

THEATER & FILM: ACTING I - CT1731
THEATER & FILM: ACTING II - CT1741
THEATER & FILM: PRODUCTION & DESIGN I - CT1701
THEATER & FILM: PRODUCTION & DESIGN II - CT1711
90-minute classes 5 Days/Week, Full Year 2 Credits

Theater and Film students will develop creative expression and technical skills in performances and digital recorded media. This innovative program is designed for the new generation of storytellers, providing a hands-on, interactive approach to entertainment and performance.

As a **Production and Design Pathway** student: Students will learn the "behind the scenes" professional skills related to creating theater, film, and digital media productions. Technical skills emphasized include set design, digital audio and lighting, props and costuming. Students also develop core artistic and management skills related to professional filmmaking, including lighting, sound and camera techniques, and use of video editing software (Adobe Premiere Pro CC).

As an **Acting Pathway** student: Students learn stage and acting techniques while working with different types of scripts and settings and receive constant feedback on their performances in accordance with industry expectations. Students will also learn script-writing techniques, Improv, and develop basic professional film editing skills (using Adobe Premiere Pro CC), which will be vital in building a college and career-ready portfolio.

Theater and Film: Acting I and Production and Design I – CRTC Application required
Theater and Film: Acting II and Production and Design II Prerequisite – Students must successfully complete Acting I or Production and Design I and receive teacher recommendation
Articulation Agreement: University of New Hampshire: Production & Design
College Credits (through partnership with NHTI): Acting 1
Certifications: OSHA 10, Adobe Certified Associate in Premiere, ETC EOS Essentials Level I & II, A2 Sound Certification

CRTC+

As part of CRTC+ students will build an individualized learning experience that correlates with their CRTC program and will include deeper learning experiences, work-based learning, and college credit opportunities. CRTC Year II students who show initiative can receive credit for CRTC+ experiences. Students who complete their CRTC program as juniors can begin building their CRTC+ plan in the second semester of their junior year and complete it in their senior year as a third-year option. This is a way to continue their career pathway planning and keep their connection to CRTC.

The following courses can be taken separately or combined. Students will be responsible for submitting a plan, completing a weekly reflection log, and a culminating presentation. When relevant we will seek feedback from business and post-secondary partners who the students are working with. Prior to enrolling in CRTC+, students will need to complete a contract that outlines the terms of their CRTC+ plan that all necessary parties will sign. CRTC+ will rely heavily on the students' own professional skills with emphasis on self-direction.

CRTC + Teaching Assistant ELO

Students will serve as an assistant to the teacher in their respective program. They will outline a schedule that will work for the student as well as make them available at necessary times to the program teacher. Students will support the teacher by preparing materials, overseeing activities,
Students must complete one year of their CRTC program in good standing, be recommended by their teacher, and approved by the CRTC principal.

CRTC+ Apprenticeship Training Hours and Related Instruction

In programs that have pre-apprenticeship and apprenticeship models in place, students will receive credit for their apprenticeship training hours (paid or unpaid) and related instruction, whether it be college courses or online industry approved training. Students must submit a request for approval to their teacher and the CRTC principal. Students must complete any prerequisite activities such as job shadows and unpaid internships as outlined by the business partner.

CRTC+ Internship/Advanced Work Based Learning

Students who wish to have a more in-depth work-based learning experience with a CRTC approved industry partner, can receive credit for the advanced internship. Students will submit a contract for approval by their CRTC teacher and the CRTC Program Coordinator. Students will be required to submit a plan, weekly log, and a culminating presentation.

CRTC+ Early College

Students who choose to supplement their high school coursework with early college credits either through online courses or on-campus college classes can receive credit for their coursework. Credit is awarded for the extended learning effort made by the student to further their academic growth. Prior to participating, approval is required by the student's home school. There is no log or presentation required for CRTC+ Early

College as assessments are embedded in the curriculum of the college course. Proof of completion of the course must be provided to attain high school credit.

CRTC+ students could also apply for acceptance into the Business program for one year if space is available.

Frequently Asked Questions (FAQs)

Should I let my school know I am interested in the programs offered at the CRTC?
Students should make their school counselor aware of their intent to apply and review their plans accordingly.

What grade should I be in to apply to the CRTC?
Many new applicants are current sophomores (who will be juniors when they start at the CRTC in September). With regards to freshmen, unfortunately CRTC seats are limited and a few of our partner schools limit applications to current sophomores and juniors. We encourage you to talk to your school counselor for more information. The few students who do start with us as a sophomore, who have demonstrated maturity, can fully take advantage of our CRTC+ program (see below). We always have a handful of seats available for seniors and freshman in our Year I classes.

How can I find out more information before applying?
Enrolling in the CRTC is a significant commitment and we want to help students make the right personal decision. There are many formal opportunities to learn about the CRTC, especially during January and February. Events include informational assemblies, CRTC Preview Days, lunch informational tables, classroom visits and meetings with teachers. All information, including a calendar of events and an overview brochure, are available online at theCRTC.org. Our job is to help students and parents learn about the CRTC. In most cases this involves meeting current students, alumni, industry partners and, of course, our industry-proven teachers.

What do students need to know about the application and enrollment process?
Students can only enroll in one program, although they are encouraged to enter a second program choice on their applications, as popular programs fill up quickly. We review a student's grades, attendance, and disciplinary record as part of our selection process. We value strong attendance. Year II enrollment is based on Year I performance and is not guaranteed.

How much does it cost?
Students attend the CRTC tuition free with no cost for transportation. Some programs suggest students purchase personal equipment (e.g., uniforms) or have other related costs. Financial assistance is available for these expenses. Career-aligned, college credit courses, are offered at a deeply discounted rate or may be free.