



Wilton-Lyndeborough Cooperative High School

PROGRAM OF STUDIES 2019 - 2020

57 School Road
Wilton, NH 03086
603-732-9230

www.sau63.org/Domain/10

WILTON-LYNDEBOROUGH COOPERATIVE HIGH SCHOOL

57 School Road, Wilton New Hampshire 03086

Phone: 603.732-9230

Fax 603.654-2104

www.sau63.org/Domain/10

Administration

Brian V. Bagley, Principal

Sara Edmunds, Ed.D, Assistant Principal

School Counseling

Phone: 603.732-9313

Fax 603.654-2104

Amanda J. Kovaliv, School Counseling Coordinator

Ashely Goggin, School Counselor

Sharon L. Coffey, Registrar, School Counseling Administrative Assistant

Core Values:

Achievement

Collaboration

Diversity

Integrity

Responsibility

Beliefs About Learning:

All students have the potential to achieve.

We inspire lifelong learning and achievement through a broad range of experiences.

It is vital to maintain a safe, productive, and inclusive learning environment.

We recognize that students, parents and staff share responsibility for open communication to maintain a thriving school community.

Vision of the Graduate:

The WLC Graduate will be an effective communicator, a strong collaborator, a creative problem solver, a self-directed learner, and a responsible citizen.

WILTON-LYNDEBOROUGH COOPERATIVE
MIDDLE SCHOOL / HIGH SCHOOL
57 SCHOOL ROAD, WILTON, NEW HAMPSHIRE 03086
(603) 732-9230
www.sau63.org/Domain/10

Brian Bagley, Principal
Sarah Edmunds, Ed.D, Assistant Principal

Amanda J. Kovaliv, School Counseling Coordinator
Shannon O'Donnell, Middle School Counselor

June 27, 2019

Dear Students and Families,

This Program of Studies is the most important document to review in planning your son/daughter's high school academic path. Please use this guide as a reference for graduation requirements and course prerequisites. You can also use it as a tool to help you map out selections for the 2019–2020 school year and beyond.

Wilton Lyndeborough Cooperative MS/HS has a vast array of options for our students. We're very proud of the curricular offerings we have available. These course offerings are reviewed and revised every year to meet the changes that are constantly taking place in technology and society today. Please review the entire list of offerings before you make your selections. Decisions that are made today will have a direct impact on the direction your son or daughter will take once they graduate from High School. As you develop your plan for the years ahead, I urge you to consider balancing your schedule between courses that will challenge you and courses or co- curricular activities that you simply enjoy.

Some of the opportunities offered to our students include:

- Dual high school and college credit opportunities in multiple departments.
- Hands on project based courses.
- Opportunities to access AP courses at WLC.
- Extended Learning Opportunities for students.
- New courses preparing students for real world opportunities in the field of technology.
- Interdisciplinary courses.

Our ultimate goal is your son/daughter's preparedness for college, the working world, the military, or whatever path he/she takes after high school. There are so many wonderful opportunities to take advantage of at WLC. We are always open to any feedback and suggestions that you may have as we work together toward creating the best academic program possible for our students. I encourage you to communicate regularly with teachers and school counselors throughout the course selection process.

Please feel free to contact me with any questions that you might have.

Brian Bagley
Principal
Wilton-Lyndeborough Cooperative MS/HS

INTRODUCTION

This Program of Studies has been prepared to assist students and their parents in deciding which courses to take at Wilton-Lyndeborough Cooperative High School. It provides information on course descriptions, suggested course sequences, required and elective courses, credit requirements, special programs, and selected school policies.

The careful selection of required and elective courses is an important first step toward a successful educational experience at Wilton-Lyndeborough Cooperative High School. Students should review the Program of Studies with their parents. Counselors, along with the student's advisor, will meet with students to hand out registration information, explain the registration process and discuss program planning. Students should consult with their core teachers to determine appropriate placement before course registration begins. Be sure to pay particular attention to course prerequisites, required courses, and college admissions requirements when selecting courses.

The Program of Studies is a comprehensive listing of programs and courses offered at WLC. Due to scheduling demands and student interests, courses offered will depend on the number of students who enroll for each course.

School Counseling Services

The mission of the Wilton-Lyndeborough Cooperative High School Counseling Department is to provide a comprehensive program that encourages the successful academic, career and social-emotional development of each individual. We believe through collaboration with students, families, school staff, and community members we can assist students in reaching their full potential.

Academic Achievement

- A. Students will acquire the attitudes, knowledge and skills contributing to effective learning in school and across the lifespan.
- B. Students will complete school with the academic preparation essential to choose from a wide range of substantial post-secondary options, including college.
- C. Students will understand the relationship of academics to the world of work, life at home and in the community.

Career Planning

- A. Students will acquire the skills to investigate the world of work in relation to knowledge of self and to make informed career decisions.
- B. Students will employ strategies to achieve future career goals with success and satisfaction.
- C. Students will understand the relationship between personal qualities, education, training and the world of work.

Personal Social Development

- A. Students will acquire the knowledge, attitudes and interpersonal skills to help them understand and respect self and others.
- B. Students will make decisions, set goals and take necessary action to achieve goals.
- C. Students will understand safety and survival skills.

School Counseling Services & Compliance with Federal and State Laws

The Wilton-Lyndeborough Cooperative School District complies with all Federal and state laws that apply to schools. These include:

- ✓ Family Education Rights and Privacy Act (FERPA)
- ✓ Individuals with Disabilities Education Act (IDEA)
- ✓ Child Find Notice: Children With Disabilities Under IDEA or Section 504 (ADA)
- ✓ Notice of Procedural Safeguards Under Section 504 and the ADA
- ✓ Child Neglect and Abuse
- ✓ Section 504 of the Americans with Disabilities Act (ADA)
- ✓ Section 504/Title II Grievance Procedure.

Visit the Wilton-Lyndeborough Cooperative High School Web Site: www.sau63.org/Domain/10

WILTON-LYNDEBOROUGH COOPERATIVE HIGH SCHOOL GRADUATION REQUIREMENTS

Students must earn 24 credits to graduate with a Wilton-Lyndeborough Cooperative High School Diploma. This diploma indicates that the student has completed a rigorous high school curriculum which exceeds the state requirements. The following courses are graduation requirements. The credit given for each course is included with the respective course description.

Students, who have not met the 24 credit requirement, will not receive a diploma at graduation. Any senior taking online course(s) MUST complete and receive a grade prior to graduation in order to take part in graduation rehearsals and walk at graduation.

Beginning with the class of 2019-all seniors will need to take a 4th unit of math, see page 23

Note: A course cannot be used to earn credit in more than one category.

SUBJECT	WLC DIPLOMA	NH SCHOLARS CORE	NH SCHOLARS STEM 3.2 minimum GPA	NH SCHOLARS ART 3.2 minimum GPA	WLC NH STATE STANDARD DIPLOMA
ENGLISH	4	4	4	4	4
SOCIAL STUDIES	3	3.5	3.5	3.5	3
SCIENCE	3 Integrated Science, Biology + 1 Full-year 1 credit OR 2 Semester- Long ½ credit Science elective(s)	4 Lab Sciences (2 past Biology)	4 Lab Sciences (2 past Biology)	4 Lab Sciences (2 past Biology)	2
MATH	3 + 0.5 or 1.0 Math Unit taken during Senior year	3 one past Algebra II + 0.5 or 1.0 Math Unit taken during Senior year	3 one past Algebra I + 0.5 or 1.0 Math Unit taken during Senior year	3 one past Algebra + 0.5 or 1.0 Math Unit taken during Senior year II	3
WORLD LANGUAGE Two years of the same Foreign Language	0	2	2	2	0
HEALTH	.5	.5	.5	.5	.5
PHYSICAL EDUCATION	1.5	1.5	1.5	1.5	1.0
ART	1.5	1.5	1.5	2	.5
INFORMATION & COMPUTER TECHNOLOGY	.5	.5	.5	.5	.5
SENIOR PROJECT	GRADUATION REQUIREMENT 1.0	0	0	0	Optional
COMMUNITY SERVICE	GRADUATION REQUIREMENT 24 HOURS	0	0	0	0
ELECTIVE OFFERINGS	5.5-6	4	4	4	5.5
STEM At least one more year chosen from Technology, Engineering, Computers, Advanced Manufacturing, Science, Math, CTE Program	N/A	N/A	1 (ATC Course)	6	0
TOTAL CREDITS	24	24	24	24	20

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Students, who have not met the 24 credit requirement, will not receive a diploma at graduation. Any senior taking online course(s) MUST complete and receive a grade prior to graduation in order to take part in graduation rehearsals and walk at graduation.

Beginning with the class of 2019-all seniors will need to take a 4th unit of math

Note: A course cannot be used to earn credit in more than one category.

Four Credits of English

- 1.0 World Literature or Honors World Literature
- 1.0 The Individual in Society or Honors The Individual in Society
- 1.0 American Literature or Honors American Literature
- 1.0 British Literature, AP English Literature and Composition, or 2 English Electives (senior year)

Three Credits of Social Studies

- 1.0 World History or Honors World History
- 1.0 Honors U.S. History or Honors U.S. History
- 1.0 US Government & Economics or Honors US Government & Economics

Three Credits of Science

- 1.0 Integrated Science or Honors Integrated Science
- 1.0 Biology or Honors Biology
- 1.0 Science Elective(s)

Three Credits of Mathematics (and an additional UNIT of math in 12th grade-see page 23)

- 1.0 Basic Algebra A, Algebra I, Honors Algebra 1 or Honors Geometry
- 1.0 Geometry, Honors Geometry, Basic Algebra B or Honors Algebra II
- 1.0 Algebra II, Honors Algebra II, Honors Precalculus, Precalculus, The Power of Math
- * One additional unit of math. Any math course qualifies. However, this may be earned outside of the Math Department via interdisciplinary coursework. See Page 23 of the Program of Studies for a complete list of courses that qualify.

Unified Arts

- 1.5 Credits in Art, Music, Industrial Arts, or Family & Consumer Science
- 1.5 Credits in Physical Education

Requirements & Electives

- 0.5 Credit in Health
- 0.5 Credit in Computer Education
- 6.0 Electives

Senior Project Requirement

- 1.0 This is an individual pursuit of a topic of particular interest. It is a demonstration of the senior's ability to learn independently from a variety of resources, while guided by a Mentor.

SENIOR PROJECT - GRADUATION REQUIREMENT

Senior Project provides high school seniors the opportunity to employ the “core competencies” they have acquired at WLC to demonstrate their skills as creative, future-oriented problem solvers.

Honors Level Senior Project is designed for students who are top-level, highly motivated students, who demonstrate critical thinking skills, and look to exceed expectations.

Students are asked to identify their “passion”. (By “passion” we mean: A subject or activity in which a student has a keen interest). Once they have articulated their passion, students select an in-district mentor and an out-of-school expert. With the assistance of the mentor and expert, the student designs an essential question to guide their research and the application of that research. At the end of a year of exploration, study, and practice, students present their findings in a public setting to a panel of judges for evaluation. After the public presentation, students are required to write a reflective essay about their journey and present it to the program coordinator(s).

This is a full-year requirement and earns 1.0 Credit.

** Transfer students who arrive from other schools **BEFORE** November 15, are required to complete the Senior Project Requirement for graduation. Transfer students from schools with an existing Senior Project Program are expected to continue the Senior Project they began in their school before they transferred to WLC. Transfer students who arrive at WLC **AFTER** November 15 are exempt from the Senior Project Requirement.*

WLC SERVICE LEARNING - GRADUATION REQUIREMENT

Each student at WLC is required to complete a minimum of 24 hours of Service Learning during their high school career in order to graduate. Juniors entering the year in September must have 12 hours of community service documented and seniors entering the year in September must have 18 hours documented. Students may begin accruing hours beginning the summer prior to ninth grade. The yearly community service requirement may be satisfied by participation in either a single activity or a combination of approved activities. *Transfer students must contact the School Counseling Office to determine the amount of time required.

Students are required to complete the service learning form (available in the School Counseling Office and online at (www.sau63.org/Domain/10)). The form requires the student to reflect on his/her service and to share his/her thoughts in writing. WLC students are expected to produce at a minimum a well-written paragraph for this section. Service learning credit can be delayed if this section is not completed satisfactorily.

If a student does not complete the required 6 hours, the student does not attain the privileges accorded to his/her class, including but not limited to Senior privileges and parking privileges. Graduating seniors must complete and have accepted all service learning hours no later than the Friday prior to graduation to participate in Senior Week activities, including graduation. Students may complete more than 6 hours of service a year, but any hours over 6 does not “carry over” to the next year. We believe at WLC that service to the community is an ongoing activity.

Service learning opportunities may be found of the Service Learning webpage of www.sau63.org/Domain/10.

WLC Student Learning Expectations

A WLC Student is academically knowledgeable and demonstrates the following:

	4- Distinguished	3- Proficient	2- Progressing	1- Emerging
	Student does...		Student...	
An Effective Communicator	<p>Express opinions, ideas and facts in an outstanding manner in all formats</p> <p>Present developed and clear ideas using evidence and/or details</p> <p>Interpret information with unique insights based upon sufficient evidence</p> <p>Deliver high quality information based upon a wide range of reliable sources</p> <p>Cite/ credit all sources accurately</p>	<p>Express opinions, ideas, and facts clearly and effectively through a variety of formats (oral, written, visual, digital), considering the audience</p> <p>Present developed and clear ideas using evidence and/or detail</p> <p>Interpret information logically, based upon sufficient evidence</p> <p>Obtain and deliver information based upon a variety of resources</p> <p>Cite/credit sources of information accurately.</p>	<p>Sometimes lacks clarity when expressing opinions, ideas, and facts.</p> <p>Communicates effectively in some formats</p> <p>Presents somewhat developed and clear ideas using a limited amount of evidence and/or detail</p> <p>Information may be interpreted with limited detail</p> <p>Obtain and deliver information based upon limited resources</p> <p>Cites/credit few sources of information</p>	<p>Expresses opinions, ideas, and fact with limited clarity</p> <p>Has difficulty communicating in most formats</p> <p>Rarely presents developed and clear ideas using evidence and/or detail</p> <p>Information may be interpreted with little or no evidence</p> <p>Obtain information based upon little or no supporting evidence</p> <p>Rarely cites sources</p>
A Strong Collaborator	<p>Highly cooperative with a high level of respect, considering the perspectives of others</p> <p>Listen attentively; share resources freely and ideas respectfully</p> <p>Fulfill roles in a high quality manner</p> <p>Incorporate different points of view to achieve a common goal</p> <p>Demonstrate great flexibility and willingness to compromise with a strong focus on the common goal</p>	<p>Cooperate with peers and adults respectfully</p> <p>Listen attentively; share ideas and resources respectfully</p> <p>Accept and fulfill roles</p> <p>Respect and consider different/multiple points of view, diverse cultures, and global issues</p> <p>Exercise flexibility and willingness to compromise in order to achieve a common goal</p>	<p>Cooperation with peers and adults varies</p> <p>Sometimes listens and shares ideas and resources</p> <p>Is somewhat reluctant to participate and fulfill roles</p> <p>Sometimes contributes in a less than respectful manner or not considering the ideas or feelings of others</p> <p>Is somewhat flexible and willing to compromise in order to achieve a common goal</p>	<p>Has difficulty cooperating with peers and/or adults</p> <p>Appears to rarely listen to others ;rarely shares ideas and resources</p> <p>Rarely participates or performs assigned roles</p> <p>Frequently contributes in less than a respectful manner or not considering the ideas and feelings of others</p> <p>Is rarely flexible and willing to compromise in order to achieve a common goal</p>

	4- Distinguished	3- Proficient	2- Progressing	1- Emerging
	Student does...		Student...	
A Creative Problem Solver	<p>Think, create, and solve problems in highly innovative ways</p> <p>Recognize social and cultural differences to create new ideas and increase both innovation and quality of work</p> <p>Consider a wide variety of ideas, strategies, and solutions</p> <p>Incorporate a wide range of high quality sources</p> <p>Apply highly effective and/or cutting edge technology</p> <p>Apply inferences and data interpretations to solutions</p>	<p>Solve problems, sometimes in innovative ways</p> <p>Demonstrates creativity/unique approaches</p> <p>Frequently considers a variety of ideas, strategies, solutions, and contexts (subject areas or environment)</p> <p>Incorporate many different resources</p> <p>Apply appropriate technology</p> <p>Make inferences and interpret data</p>	<p>Uses more typical ways of thinking, creating, and solving problems</p> <p>Considers a narrow range of ideas, strategies, and solutions</p> <p>Incorporates limited resources</p> <p>Attempts to apply appropriate technology</p> <p>Inferencing and data interpretation are limited</p>	<p>Thoughts and solutions are basic recall of previous learning</p> <p>Considers few, if any, ideas, strategies, or solutions</p> <p>Incorporates few, if any, resources</p> <p>Applies little technology</p> <p>Struggles with making inferences and interpreting data</p>
A Self-Directed Learner	<p>Persevere to completion of complex, challenging tasks</p> <p>Demonstrate a highly positive attitude</p> <p>Take a high level of responsibility and self-motivation for own learning, self-assessment, and personal development</p> <p>Engage mentors and stakeholders to gain support for ideas or projects</p> <p>Demonstrate a high level of curiosity and self-inquiry, sometimes outside a prescribed learning context</p> <p>Model personal accountability and high quality work habits</p>	<p>Persevere with complex, challenging tasks</p> <p>Demonstrate a “can do” attitude</p> <p>Take an active role/initiative in learning and personal development, including goal setting and self-assessment</p> <p>Work independently</p> <p>Seek out other, including stakeholders, to learn from or gain support</p> <p>Initiate inquiry often</p> <p>Take personal accountability and demonstrate effective work habits (punctuality, managing time, including deadlines and work load)</p>	<p>Shows limited perseverance in completing complex, challenging tasks</p> <p>Sometimes has a positive attitude</p> <p>May rely on others for initiating learning and development</p> <p>Works independently some of the time</p> <p>Occasionally engages others in own learning or projects</p> <p>Relies on others to initiate and prescribe inquiry opportunities</p>	<p>Gives up easily when facing complex and/or challenging tasks</p> <p>Infrequently demonstrates a positive attitude</p> <p>Takes a limited role in own learning and personal development; needs external motivation</p> <p>Resists or struggles with independent work</p> <p>Ideas or projects are pursued with little or no input from others</p> <p>resists efforts by others to prescribe inquiry opportunities</p>

	4- Distinguished	3- Proficient	2- Progressing	1- Emerging
	Student does...		Student...	
A Responsible Citizen	<p>Act in a highly responsible manner with respect for others</p> <p>Demonstrate leadership as a contributing member of the larger community</p> <p>Initiate school activities that demonstrate school and community pride</p> <p>Recognize ethical behavior in others while demonstrating integrity in their influence</p> <p>Make decisions with the best interest of others in mind</p> <p>Respect cultural difference and work effectively with people from a range of social and cultural backgrounds</p> <p>Initiates, maintains, and encourages activities that service the community</p> <p>Convey a greater appreciation of the arts</p>	<p>Accept responsibility and understand the impact of personal actions</p> <p>Demonstrate an awareness of individual rights and responsibilities as contributing members of the larger community</p> <p>Exhibit school pride through support of school activities and involvement in community life</p> <p>Model ethical and lawful behavior as responsible and accountable citizens; do what's "right"</p> <p>Make decisions considering how others think and feel</p> <p>Demonstrate empathy toward others</p> <p>Demonstrate social awareness and interpersonal skills to establish and maintain positive relationships</p> <p>Participate in service to the community</p> <p>Value the arts (performing and visual) as forms of human expression</p>	<p>Exhibits limited responsibility for the impact personal actions have on the community</p> <p>Needs reminders about the rights of others</p> <p>Participates in limited school activities</p> <p>Acts in an appropriate manner most of the time to do what is right</p> <p>Needs reminders to consider how others think and feel</p> <p>Social awareness and interpersonal skills need development</p> <p>Limited participation in school and community service</p> <p>Is beginning to understand that people express themselves through the arts</p>	<p>Infrequently accepts responsibility for personal actions</p> <p>Frequently trespasses on the rights of others</p> <p>Little to no participation in the school community</p> <p>Frequently speaks negatively about our school</p> <p>Disrespectful of school property</p> <p>Lacks consideration for others</p> <p>Lacks awareness of the impact on others</p> <p>Is not community-minded</p> <p>Limited interest in the arts</p>



NEW HAMPSHIRE SCHOLARS

Wilton-Lyndeborough Cooperative is proud to be the 20th school to join New Hampshire Scholars. New Hampshire Scholars is a federally funded program developed and administered through a partnership between the New Hampshire College and University Council, the New Hampshire Forum on the Future, the New Hampshire Department of Education and the National State Scholars Initiative Network. The program pairs business leaders with classes of 8th Grade students prior to the selection of their high school courses. Business leaders present the students with a powerful presentation that provides the rationale for the recommendation that students take a more rigorous Core Course of Study in high school. Students will contract to the program by means of a 4-year planner - a personalized education plan - to complete the recommended Core Course of Studies.

Remember, the Core Courses listed below are required to graduate as a NH Scholar. However, we recommend students complete four years each of math and science.

The following is the State Scholars Core Course of Study

- * **Please note the additional course(s) needed for NH Scholars STEM and NH Scholars Arts are listed at the bottom ***

Four Credits of English

- 1.0 World Literature OR Honors World Literature
- 1.0 The Individual in Society OR Honors The Individual in Society
- 1.0 American Literature OR Honors American Literature
- 1.0 British Literature, AP English Literature and Composition OR 2 English Electives

Three and ½ Credits of Social Studies

- 1.0 World History OR Honors World History
- 1.0 Honors U.S. History OR Honors U.S. History
- 1.0 US Government & Economics OR Honors US Government & Economics
- 0.5 Social Studies Elective

Four Credits of Science – *chosen from the list below*

- 1.0 Integrated Science OR Honors Integrated Science
- 1.0 Biology OR Honors Biology
- 2.0 Chemistry OR Honors Chemistry, Physics OR Honors Physics, Environmental Conservation I & II, Marine Biology, Anatomy & Physiology I and Anatomy & Physiology II, Microbiology: Principles & Practices/Biotechnology/Genetics, Astrobiology, Astronomy

Four Credits of Mathematics

- 1.0 Algebra I or Honors Algebra I
- 1.0 Algebra II or Honors Algebra II
- 1.0 Geometry or Honors Geometry
- √x One additional unit of math, this may be earned outside of the Math Department via interdisciplinary coursework. See Page 23 of the Program of Studies for a complete list of courses that qualify.

Two Credits of World Language

- 2.0 Two years of the same language other than English

- * **The New Hampshire State Scholars STEM Course of Study is the same as the State Scholars Core Course of Study above, PLUS 1.0 credit chosen from Technology, Engineering, Computers, Advanced Manufacturing, Science, Math, CTE Program**
- * **The New Hampshire State Scholars ART Course of Study is the same as State Scholars Core Course of Study PLUS 0.5 art credit**

WILTON-LYNDEBOROUGH COOPERATIVE HIGH SCHOOL
NH STATE STANDARD DIPLOMA

A New Hampshire State Standard Diploma for Academic Achievement may be awarded to any student who completes the state minimum required 20 units of credit as defined by Ed306.27(m) but who does not qualify for a Wilton-Lyndeborough Cooperative Diploma.

The WLC State Standards Diploma Program is intended for students who have experienced difficulty earning credits, are no longer able to graduate on time with their age cohorts, or need an alternative route to completing their education. Students must be at least 16 years of age. Student needs to be a junior and fill out the required paperwork to be reviewed by Administrative Staff. In order to participate in the WLC State Standards Diploma Program, both the student and parent (if student is under the age of 18) must affirm that they understand the purpose and structure of the program.

Students and parents must acknowledge the following:

- Participation in the WLC State Standards
- Diploma Program must be approved by administration.
- Other means of education have been considered (Credit Recovery, Summer School, VLACS.
- Successful completion of the WLC State Standards Diploma Program will result in receipt of a State Standards Diploma (not WLC diploma).
- Students are permitted to take part in the high school graduation ceremony.
- A detailed plan outlining attainment of required credits must be prepared and followed

Four Credits of English

- 1.0 World Literature
- 1.0 The Individual in Society
- 1.0 American Literature
- 1.0 British Literature OR 2 English Electives

Three Credits of Social Studies

- 1.0 World History
- 1.0 U.S. History
- 1.0 US Government & Economics

Two Credits of Science

- 1.0 Integrated Science
- 1.0 Biology

Three Credits of Mathematics

- 1.0 Algebra A and Algebra B or Algebra I
- 2.0 Math Electives

Unified Arts

- 0.5 Credits in Art, Music, Industrial Arts, or Family & Consumer Science
- 1.0 Credits in Physical Education

Requirements and Electives

- 0.5 Credit in Health
- 0.5 Information Communication & Technologies
- 5.5 Electives

Senior Project – Optional (See page 7)

**EXTENDED LEARNING
OPPORTUNITIES
(ELOS)**

**Internship
Independent Study**

ONLINE COURSES

**Virtual Learning Academy
Charter School &
Virtual High School
Courses**

**COLLEGE COURSES
(Dual Credit)**

**Early College
EStart
Running Start**

Generally, courses required for graduation are taken at Wilton-Lyndeborough Cooperative High School. Students who wish to take courses through an extended learning opportunity and/or online programs may do so in consultation with the School Counselor and pre-approval of the principal. In all cases, an Alternative Credit Application must be completed and permission obtained prior to the commencement of the class/program. For these courses to obtain credit, they must be taken at an accredited high school, college or university and an official transcript must be provided to the school registrar.

EXTENDED LEARNING OPPORTUNITIES (ELOS)

Extended Learning Opportunities are programs or opportunities in which the primary acquisition of knowledge and skills is through instruction or study outside of the traditional classroom methodology, including but not limited to apprenticeships, independent study, internships, and performing groups. ELOs allow students to earn credit towards graduation outside of the traditional classroom methodologies. ELOs are supervised, competency-based programs or studies that allow students to expand their learning environment.

The purpose of ELOs is to provide learning that is meaningful and relevant to the student and/or school or community. ELOs provide students with opportunities to explore and achieve at high levels. Extended learning opportunities should be stimulating and intellectually challenging and enable students to fulfill or exceed the expectations set forth by State minimum standards and applicable Board policies.

These courses will reflect either a Pass (P) or Fail (F) letter grade on the WLC transcript. Pass will received credit and Fail will not. GPA is excluded from these courses, and therefore is not tabulated in overall GPA.

ELO Philosophy

The WLC High School believes that students should have access to Extended Learning Opportunities as they support the WLC MS/HS Mission. We believe that ELOs allow students to experience education in diverse settings and with non-traditional methodologies that may address the different learning styles of our students. ELOs allow for in-depth learning that allows students to explore and immerse themselves in an area of their own interest. ELOs are a part of the educational program which provides students with the best possible education and options to reach their potential at WLC HS.

Students interested in an ELO should see the ELO Coordinator.

INTERNSHIPS

WLC believes students should be provided with community-based Extended Learning Opportunities (ELOS) that support students earning non-traditional credit. The primary acquisition of knowledge and skills through instruction or study outside of the traditional classroom methodology. We believe that students have many different learning styles and that they should have many experiences available to them outside of the traditional classroom environment. Our goal is to provide the best possible education for students at WLC by having more options to reach their potential. GPA is excluded from these courses, and therefore is not tabulated in overall GPA.

INDEPENDENT STUDY

Students may investigate independent studies by contacting the specific teacher the student wishes to work with. The school counselor will assist in determining if the student is eligible. The supervising teacher and the student complete an ELO form for approval before the semester begins. Teachers must be certified in the course content area. Independent Study courses fulfill an elective graduation requirement; these courses are graded Pass or Fail. GPA is excluded from these courses, and therefore is not tabulated in overall GPA.

ONLINE COURSES

We offer students the opportunity to take online classes through Virtual High School and Virtual Learning Academy Charter School. VHS and VLACS offer a variety of courses that are not offered at WLC and allow students to further explore their own interests to complete their elective and extracurricular requirements. VHS and VLACS courses require permission from the School Counselor. These courses will reflect the actual letter grade earned and the GPA associated with it, this will be tabulated and included in overall GPA

Taking Core Classes Online Policy: Students are strongly encouraged to take all credit requirements at WLC. However, in some circumstances students are allowed to take such a class online. Students must first try the WLC offered course in the classroom setting. If it is apparent that the student's education would further benefit from an alternative setting in order to gain course credit, a meeting with the student, parent/guardian, teacher and school counselor will take place to explore further options. Upon further review, permission must be granted by administration and school counselor in order for the student to take the online course.

VLACS - Virtual High School and Virtual Learning Academy Charter School can begin at any time during the school year and students complete the course at their own pace earning a half or full credit based on course selection. For more information you can visit the VLACS website at www.Vlacs.org

COLLEGE/UNIVERSITY CREDIT = DUAL CREDIT

With prior approval from the school counselor and before the beginning of a semester a student must be approved for college level courses. Students earn high school and college level credit simultaneously. All applications must be completed and approval granted from the school counselor. Credit will be granted for a college course provided that a passing grade is earned. 0.5 credit will be awarded for a semester long course and 1.0 for year-long courses. These courses are considered honor level high school courses and will be awarded honors GPA.

Early College: Early College pathways enables students to jump start their college education by earning college-level credits during their high school years. Students are integrated into regular college classes on the NCC campus or online. With guidance from Nashua Community College advisers, students select courses from the general education program or take a sequence of courses in a particular curriculum.

Earn college credits at a fraction of the cost of a four-year university. NCC's in-state tuition rate is only \$250 per course. Contact the NCC Admissions Office for more information at 603-578-8908.

eStart: eStart is a dual credit program that affords NH high school students the opportunity to take 100% online college courses through the Community College System of New Hampshire (CCSNH), while earning both high school AND college credit simultaneously.

This program allows students to earn high school AND college credit for the same online course. They can access their class anytime/anywhere to fit their busy schedule. Students will learn from highly qualified CCSNH faculty and gain valuable experience with college coursework. The credits earned transfer to many colleges and universities. Tuition is \$150 plus the cost of textbooks.

eStart is a partnership between the Community College System of NH (CCSNH) and the Virtual Learning Academy Charter School (VLACS)

Running Start: The Running Start program allows high school students to take Community College System of NH (CCSNH) courses for high school AND college credit while still in high school. Courses offered through the Running Start program are college courses taught at the high school by CCSNH college credentialed high school faculty as part of the daily class schedule. Currently the tuition price per credit is \$150.00 plus the cost of textbook(s). College courses are generally either 3 or 4 credits.

Each student, along with their parent(s) is required to sign a contract to ensure that all parties understand the agreement, costs and terms.

CREDIT ACCUMULATION GUIDELINES

Beginning in 9th Grade, progress toward graduation depends on the accumulation of credits and passing required subjects. The following credit accumulations are guidelines for entrance into Grades 10, 11, and 12:

At the completion of Grade 9:	6 Credits
At the completion of Grade 10:	12 Credits
At the completion of Grade 11:	18 Credits

It is the student's responsibility to meet periodically with his/her counselor to ensure all graduation and credit requirements are completed.

Middle School Students Enrolled in High School Courses

Students who take high school course while enrolled in middle school will earn credit towards high school graduation. These courses are tabulated in their overall High School GPA. The course will appear on their high school transcript and will count towards graduation credits. Students are still required to fulfill all course requirements for graduation within their 4 years of high school.

- Report Cards are generated and credit is assigned for S1 and S2/YL
- Semester long classes earn .5 credit.
- Year Long courses earn 1.0 credit.

Summer Enrichment

Students are encouraged to participate in summer enrichment experiences. These programs are seen as enrichment only and do not qualify for credit. Programs such as St. Paul's Advanced Studies Program, Phillips Exeter Summer Program, courses taken at college/university qualify for academic credit. See your counselor for more information.

Official Snapshot for Seniors

Each October grades will be captured on a specific date. These grades will be part of the senior college application process and sent to colleges/universities as their official transcript for the start of their senior year.

Report Cards

Report cards are issued twice a year at the end of Semester 1 and at the end of the school year in June. Assignments, grades, and attendance information is available to families through the PowerSchool Parent Portal.

Grade Weighting

Honors, Dual Credit (Running Start) and Advanced Placement courses from each major department carry more weight in calculating Grade Point Average.

WLC GRADE SCALE

Academic Program

Listed below is an explanation of the three academic programs and their criteria. All levels may not be offered every year.

Advanced Placement	WLC offers several Advanced Placement course per year. They are designed to develop higher-level reading, critical thinking, verbal, and writing skills and to develop an understanding of complex concepts. Students should expect significant homework and/or research assignment.
Honors & Dual Credit Courses	These are rigorous courses offered at Wilton-Lyndeborough Cooperative. They are designed for students with high motivation. The goal is to develop advanced reading, critical thinking, verbal, and writing skills and to develop an understanding of complex concepts and themes through extensive investigation. These courses require a significant amount of homework and the ability to plan for both short and long term assignments. Enrollment in these courses is based upon instructor recommendation.
General Course of Study	These courses offer a curriculum designed to meet the needs of students who require a more basic approach to the subject. They are designed to develop reading, critical thinking, verbal, and writing skills. These courses will require homework and the ability to complete research assignments.

Taking into consideration a student's interests, abilities and performance, different levels may be selected for different subject areas. The student may have the opportunity to adjust their level when appropriate.

COURSE WEIGHTINGS AND RANK IN CLASS PROCEDURES

Grade	Honors Level	General Course of Study	Percentage	Grade
A +	4.9	4.5	98 - 100	A +
A	4.6	4.2	93 - 97	A
A -	4.3	3.9	90 - 92	A -
B +	3.9	3.5	88 - 89	B +
B	3.6	3.2	83 - 87	B
B -	3.3	2.9	80 - 82	B -
C +	2.9	2.5	78 - 79	C +
C	2.6	2.2	73 - 77	C
C -	2.3	1.9	70 - 72	C -
D +	1.9	1.5	68 - 67	D +
D	1.6	1.2	66 - 67	D
D -	1.3	0.9	65	D -
F	0.0	0.0	64 and below	F

High Distinction Diploma - GPA of 3.7-4.9

Distinction Diploma - GPA of 3.3-3.7

WLC Diploma - 0.0-3.3

COMPETENCY-BASED GRADING

“Competencies” - students learning targets that represent key content-specific concepts, skills, and knowledge applied within or across content areas. They serve as the basis of the curriculum. Students **MUST** pass ALL of the competencies in order to receive credit for each course. WLC has defined competencies for each course offered. Students will receive the traditional grade and credit only when he/she meets the competencies. If any course competency is not met, the student will receive a NC (No Credit) in place of the final grade.

Academic Progress Information

In many instances, unsatisfactory and failing grades should be followed by a student-parent-teacher conference. Parents may also want to discuss any difficulties that their son/daughter might be experiencing with their child's counselor. Students are eligible to remediate their grade and receive up to 80% on assessments.

Grades are captured at the end of Semester 1 and Semester 2 for semester long courses. Year Long courses are granted credit at the end of the year. GPA is awarded upon completion of a course, therefore, semester long course will be awarded at Semester 1 and Semester 2, while Year Long course will not receive GPA until the end of the school year.

- Students' progress is updated in PowerSchool using “Competency Status” updates and comments regularly.
- Report Cards are generated and GPA is assigned for S1 and S2/YL
- Semester long classes earn .50 credit and accrue $\frac{1}{2}$ GPA.
- Year Long courses earn 1.0 credit and accrue full GPA.
- Passing a class with a traditional grades does not mean a student receives credit for the course.
- Competencies override the traditional grades when determining course credit.
- Traditional grades are used to calculate GPA, and for transcript.

Competency Status and Comments in PowerSchool

Each “Competency Status” assignment will have a letter code (OK, P, NYP, IWS, NC) associated with it. A comment may also be associated with a score; click on the highlighted score for any assignment and the comments included will be displayed. Examples are provided below.

P (*Proficient*) upon satisfactorily meeting a proficiency goal, the “OK” will be updated to a “P”. The comment associated with this code will indicate the proficiency has been met.

NYP (*Not Yet Proficient*) - indicates that the student is having difficulty with one or more competencies. There will be a comment associated with this code to indicate where the difficulty lies.

IWS (*Insufficient Work Shown*) - indicates that the student is missing one or more assessments for competencies. There will be a comment associated with this code to indicate what is missing.

NC (*No Credit*) - If a student fails to meet the proficient level in any of the course competencies by the conclusion of the class*, an NC will appear in place of the traditional grade. This indicates that the student has not received credit for the course and will have to complete a Credit Recovery Plan, or retake the course. Upon the successful completion of missing competencies, the traditional grade will be restored and factored into the student's cumulative GPA.

GRADE POINT AVERAGE

A student's Grade Point Average (GPA) is determined at the last snapshot at the end of the school year. GPAs are recorded on the transcript cumulatively. Wilton-Lyndeborough Cooperative High School does rank its students.

Semester long course are awarded credit and GPA at the end of Semester 1 and Semester 2. Year Long courses are awarded credit and GPA at the end of the year.

CLASS RANK

Class Rank is obtained by the cumulative averages of all students in a class. Class rank is calculated at the conclusion of each semester beginning after the spring semester of freshman year. Official ranks are accumulated in June and January. It is important to note: At Wilton-Lyndeborough Cooperative High School, ALL Pass/Fail courses are excluded from GPA, however they are awarded credit.

TOP TEN

For the purpose of the top ten (10) graduating students and the positions of Senior Class Valedictorian and Salutatorian cumulative GPA will be calculated two weeks after Semester 1 grades close. At this time credit and GPA will be awarded for both Semester 1 and Year Long courses. Once this has been determined the Top Ten will be notified and these credits and GPA will revert back to their original status. These results are to be absolute.

The GPA of any senior who has been at WLC for one academic year or less will, to our best ability, be translated into the WLC formula for calculation of GPA and class rank. If the student's rank in class falls within the top ten range, then the student will share the rank with the WLC student who is currently at that rank resulting in Top Eleven.

SEER

"Students*Exploring their talents*Extending their academic day*Reinforcing their learning"

Students in Grades 9-12 meet in their assigned SEER twice per week to confer with teachers, collaborate with peers, and complete assignments. During this 45-minute period, students may sign up for enrichment activities, access the library, attend school assemblies, School Counseling Department programs, and other scheduled school programs. Learning labs are available for those students who require additional classroom help.

HONOR ROLL

The scholastic Honor Roll is prepared and published twice a year. Students who drop a class and receive a grade of "WDF" are not eligible for honor roll.

HONOR ROLL CLASSIFICATIONS

High Honors: Students who have received a grade of A- or higher in all subjects

Honors: Students who have received a grade of B- or higher in all subjects

SENIOR PRIVILEGES

Senior Privileges allow 12th grade students in good academic standing, including Senior Project and Service Learning, to manage their time during the day when they are not scheduled for a class. An application, found in the school counseling office, needs to be completed before approval.

FOREIGN EXCHANGE STUDENTS

Foreign exchange students upon entering WLC are enrolled as Juniors. They do not participate in graduation ceremony and do not receive a diploma.

ADVANCED PLACEMENT COURSES/EXAMS

Students taking an advanced placement exam are not required to attend the regular classes on the day of an AP exam. Student must arrive 15 minutes prior to the exam start time to ensure their attendance and complete required paperwork.

COURSE REGISTRATION PROCEDURES

Course registration begins in January/February for upcoming freshmen and returning high school students. The process is announced by teachers and the School Counseling Department, to provide students and parents information to make appropriate course selections. Many courses have prerequisites and honors or AP level core courses require approval from the current teacher for enrollment. Students should discuss levels with their current teachers or core class instructors to ensure correct placement in courses. Course registration deadlines are important. Students should always work with their counselor if they have any questions or concerns. A separate contract must be signed by students and their parent(s) for any students who wished to take Running Start, EStart or Early College Courses to ensure that all parties understand the agreement, costs and terms.

TEACHER RECOMMENDATIONS/OVERRIDES

Teachers recommend the appropriate course selection for students. Experience has confirmed our belief that a student's current teacher is the most qualified person to make this recommendation based not only on the student's performance, but also on the teacher's evaluation of the student's potential and ability.

At times, parents may disagree with the teacher recommendation. When this occurs, we strongly encourage you to discuss the course selection with your child, the teacher and school counselor. Parents and students are highly cautioned about completing a Course Override Form. If a parent overrides a teacher recommendation and the student begins to experience difficulty in the class, moving the student to a lower level may not be possible. In addition, your child's transcript will permanently reflect a Grade of WDF (withdraw/fail). Please consider this decision carefully before taking this course of action. Students who receive a snapshot Grade of WDF are ineligible for Honor Roll.

TAKING HIGHER LEVEL COURSES WITHOUT TEACHER RECOMMENDATION POLICY

Any students interested in taking a higher level class at WLC for which they have not been recommended must have a meeting with their parent/guardian, previous subject teacher, teacher of higher level course and school counselor. This meeting must take place during the academic school year.

DROP/ADD PROCEDURES

Student may withdraw from a course prior to the add/drop period of a semester without academic penalty, and without the course being listed on the student's transcript. After the Add/Drop period, but before deficiency notices are issued, a student may withdraw from a course with a "WDF" grade ("withdrawal with failure"). Please consider this decision carefully prior to taking this course of action; the students' transcript will permanently reflect a "WDF". Student will receive no partial withdrawal credit for time spent in the course. The failing grade will be computed in GPA, often resulting in a lower GPA. Students receiving a WDF are ineligible for the Honor Roll. This policy applies to all, but is not limited to; all courses taught at WLC, courses offered to WLC students via Contoocook Valley, Mascenic Regional High School or Milford Technical High School, Virtual High School (vhs.org). Virtual Learning Academy Charter School (vlacs.org), Running Start, eStart and ELOs. Students who withdraw from classes after the add/drop period must have, in writing, permission from Teacher, School Counselor, and Parent(s)/Guardian(s). A withdraw/fail grade will be assigned for all such withdrawals.

ASSESSING OUT OF HIGH SCHOOL CLASS(ES) POLICY

In order for students to test out of a high school class, they must adhere to the following; have a meeting with their parent/guardian, teacher, and school counselor during the academic school year. Students must earn a grade of 65 or higher on the assessment in order to gain their credit. Grades will show up on academic transcripts as P (pass) with no numerical grade counting for or against a student's GPA. A student will not be able to receive Honors credit for the course. Subject matter and competency requirements for the test will depend on specific curriculum and standards set forth by the teacher.

ACADEMIC EXTENSION

Academic Extensions are offered at WLC for students who need extra study time, this class carries no credit or GPA and will not be listed on Transcript.

OVERVIEW OF COLLEGE ADMISSION REQUIREMENTS

The choice of a high school curriculum and course selection may limit or enhance college entrance opportunities and achievement in college. Students are strongly encouraged to take as demanding a schedule as possible where they will be successful. Most successful candidates for admission to college have taken at least four years of English, three plus years of college preparatory mathematics, laboratory science, and social studies. Successful candidates have also completed three years of study in a single world language. However, students must read specific college catalogs to be certain of their particular requirements especially in areas such as engineering, nursing and physical therapy. A major factor leading to success in college admission and as a college student is the academic preparation a student achieves in high school. Students need to consider this as they plan for their course selection each year.

COLLEGE SELECTIVITY

Colleges may be classified according to their standards for admission. Students should carefully review these categories as they plan for college.

Most Competitive: Even superior students will encounter a great deal of competition for admission to these colleges. In general, these colleges require a class rank in the top ten percent and grade point average of 3.8 and above. The strongest curriculum possible in high school is required. Average test scores of admitted students are 700-800 on each section of the Critical Reasoning SAT and 30 or above on the ACT. These colleges typically require at least three SAT Subject Tests. These colleges admit a small percentage of those who apply.

Highly Competitive: The group of colleges is looking for students with minimum grade point averages of 3.65 and accepts most of their students for the upper 10 to 20 percent of the high school class. A very strong high school curriculum is required. Average test scores of admitted students are 650-800 on each section of the Critical Reasoning SAT and 28 and above on the ACT. These colleges recommend that prospective students take at least three SAT Subject tests.

Very Competitive: The colleges in the category admit students whose grade point averages are no less than 3.5 or above, who rank in the top 25-30 percent of their graduating class, and who have taken a solid college preparatory and honors program in high school. Average test scores are in the 600-700 range on each section of the Critical reasoning SAT and from 28 above on the ACT.

Competitive: These schools enroll students with average test scores from 500-650 on each section of the Critical Reasoning SAT and from 23 to 28 on the ACT. Many colleges prefer students in the top 30 to 40 percent of the graduating class.

Less Competitive: The colleges in this category look for students in the upper half of their graduating class who have taken a college preparatory program and have scored around 500 on each section of the Critical Reasoning SAT and 20-26 on the ACT. They admit students with a GPA range of 2.3-2.8

Noncompetitive: Colleges in this category require only evidence of graduation from an accredited high school program or equivalent. Some require entrance examinations for course placement purposes.

SPECIAL COLLEGES

These colleges feature specialized programs of study. They include professional schools of art, music, or theater arts, or seminaries preparing students for the clergy. In general, admission requirements are not based on academic criteria but on evidence of talent or special interest in the area of study and often require an audition or portfolio of the students work in order to be admitted.

POST HIGH SCHOOL EDUCATION

Some students benefit from a post graduate year of study. Students who do not feel academically, socially or emotionally ready to attend college have often found success with this option after graduation. There are a variety of schools that offer this year of study that helps students solidify their academic foundation enabling them to move on to a college experience of their choice.

POST HIGH SCHOOL EMPLOYMENT

Students interested in going on to a career immediately after high school may take advantage of career opportunities offered throughout their high school experience in order to enhance their opportunities. Employers will base their decision to employ a student on a variety of factors. These factors include high school diploma, grades, attendance record, recommendations from teachers and counselors, extracurricular activities, and personal characteristics.

COLLEGE PREPARATORY TESTING

PSAT 8/9

-Administered to ALL 9th grade students in the Spring at WLC

The PSAT 8/9 measures the same skills and knowledge in ways that make sense for different grade levels, so it's easier for students, parents, and educators to monitor student progress. The tests are designed to:

- Measure the essential ingredients for college and career readiness and success, as shown by research.
- Have a stronger connection to classroom learning.
- Inspire productive practice.

As students advance from grade to grade, the tests will keep pace, matching the scope and difficulty of work found in the classroom.

PSAT 10

-Administered to ALL 10th grade students in the Spring at WLC

The PSAT 10 and the PSAT/NMSQT are the same test, offered at different times of year and have these benefits in common:

- They are both great practice for the SAT because they test the same skills and knowledge as the SAT — in a way that makes sense for your grade level.
- They both provide score reports you can use to personalize your Khan Academy® SAT practice
- These score reports also list which AP courses you should check out

PSAT/NMSQT

-Administered to ALL 11th grade students in October at WLC

National Merit® Scholarship Program is an academic competition for recognition and scholarships that began in 1955. High school students enter the National Merit Program by taking the Preliminary SAT/National Merit Scholarship Qualifying Test, a test which serves as an initial screen of approximately 1.5 million entrants each year, and by meeting published program entry and participation requirements.

Each October the PSAT is administered to all WLC juniors. The PSAT/NMSQT has been redesigned to mirror the redesigned SAT®. Participation in the PSAT/NMSQT is an important step in preparing for college.

Students can prepare for this exam by taking the PSAT/NMSQT Practice Test. Khan Academy®, partnering with College Board released free interactive practice programs to support students to familiarize themselves with the redesigned exam. The customized test preparation offers skill based videos to support the redesigned key changes for students who take the PSAT/NMSQT. When students get their test results, they can connect their College Board and Khan Academy accounts to get free personalized SAT study recommendations.

SAT

-Administered to ALL 11th grade students in the Spring at WLC

-Available to 11th and 12th grade students, please visit www.collegeboard.org

The SAT is a globally recognized college admission test that lets you show colleges what you know and how well you can apply that knowledge. It tests your knowledge of reading, writing and math, subjects that are taught every day in high school classrooms. Almost all colleges and universities use the SAT to make admission decisions.

Taking the SAT is the first step in finding the right college for you — the place where you can further develop your skills and pursue your passions. But SAT scores are just one of many factors that colleges consider when making their admission decisions. High school grades are also very important. In fact, the combination of high school grades and SAT scores is the best predictor of your academic success in college.

The SATs are offered several times a year. Most students take the SAT for the first time during the spring of their junior year and a second time during the fall of their senior year.

By state law, all juniors at WLC High School are required to take the reading and mathematics portions of the SAT at WLC during the school day in March with a make-up day in April. The results of these SATs are used to evaluate WLC School District, and in most cases can be used by the student in the college application process.

The writing test or essay portion of the SAT is not required for this test session but is available. Students who are interested in taking the writing portion of the SAT on the state SAT testing date need to make arrangements through their school counselor.

ACT

- Available to 11th and 12th grade students, please visit www.actstudent.org

The ACT is accepted by all 4-year colleges and universities in the United States.

The ACT multiple-choice tests are based on what you're learning.

The ACT is not an aptitude or an IQ test. The test questions on the ACT are directly related to what you have learned in your high school courses in English, mathematics, reading, and science. Every day you attend class you are preparing for the ACT. The harder you work in school, the more prepared you will be for the test.

There are many ways to prepare for the ACT.

Taking challenging courses in high school is the best way to prepare, but ACT also offers a number of test preparation options including free online practice tests, testing tips for each subject area tested, and the free student booklet *Preparing for the ACT*. This booklet includes complete practice tests (with a sample writing prompt and example essays). ACT Online Prep™, the only online test preparation program developed by ACT, is another tool to help you be ready for test day.

Your ACT score is based only on what you know.

The ACT is the only national college admission test based on the number of correct answers—you are not penalized for guessing.

Optional Writing Test.

Because not all colleges require a writing test for admission, ACT offers you the choice of whether or not you want to spend the extra time and money taking the writing test. Writing is an important skill for college and work, but schools use different methods to measure your writing skills.

ACCUPLACER TEST

ACCUPLACER is an integrated system of computer-adaptive assessments designed to evaluate students' skills in reading, writing, and mathematics. For over 30 years, ACCUPLACER has been used successfully to assess student preparedness for introductory credit-bearing college courses. ACCUPLACER delivers immediate and precise results, offering both placement and diagnostic tests, to support intervention and help answer the challenges of accurate placement and remediation.

Educators, counselors, and testing directors rely on ACCUPLACER's quality and validity as they advise and support students in their academic and career journeys. Over 8.5 million ACCUPLACER tests are administered each year in more than 2,000 secondary and postsecondary institutions. ACCUPLACER connects over 2.5 million students to college and career opportunities.

If you are interested in ACCUPLACER and need to create an ACCUPLACER account, complete a new institution registration form at accuplacer.org.

BEGINNING WITH THE CLASS OF 2019 – ONE ADDITIONAL UNIT OF MATH IN 12TH GRADE

WLC requires that every student take three years of math plus one additional year of math or a non-math class in which mathematics is significantly applied during their 4 years in high school. According to ED 306.27, a student can meet the requirement "by satisfactorily completing a minimum of 4 courses in mathematics or by satisfactorily completing a minimum of 3 mathematics courses, and one non-mathematic content area course in which mathematics knowledge and skills are embedded and applied, as may be approved by the school board."

Non-math department courses that meet the fourth year math requirement are designated with the \sqrt{x} symbol at the beginning of the course title.

Accounting I – <i>U.A.</i>	Engineering Design – <i>U.A. -MHSATC</i>
Accounting I & II – Milford – <i>U.A. -MHSATC</i>	Environmental Conservation - <i>Science</i>
Advanced Construction Technology – <i>U.A. -MHSATC</i>	Everything Else is 3-D – <i>U.A.</i>
Advanced Engineering Design – <i>U.A. -MHSATC</i>	Forensic Science– <i>U.A.</i>
Advanced Precision Machining – <i>U.A. -MHSATC</i>	For the Love of Leftovers – <i>U.A.</i>
Adventures in Computer Art – <i>U.A. -MHSATC</i>	Honors Calculus - <i>SCI</i>
Algebra II	Honors Chemistry- <i>SCI</i>
All That is 2-D – <i>U.A.</i>	Honors Data Structure– <i>U.A. -MHSATC</i>
Applied Algebra II	Honors Java Programming – <i>U.A.</i>
AP Calculus	Honors Pre-Calculus
AP Computer Science – <i>U.A.</i>	Intro to Statistics
AP Physics C	Introduction to Accounting – <i>U.A.</i>
Around The House – <i>U.A.</i>	Life Skills – <i>U.A.</i>
Astronomy	Mechatronics Precision Machining– <i>U.A. -MHSATC</i>
Automotive Service Technology – <i>U.A.-MRHS</i>	Microbiology Principles & Practices – <i>SCI– U.A.-MHSATC</i>
Biotechnology/Genetics – <i>SCI–MHSATC</i>	Personal Finance & Career Management – <i>U.A. -MHSATC</i>
Business Math - <i>VHS</i>	Physics - <i>SCI</i>
Chemistry - <i>SCI</i>	Pre-Calculus
Computer Integrated Manufacturing – <i>U.A. -MHSATC</i>	Precision Machining – <i>U.A. -MHSATC</i>
Computer Science Principles – <i>U.A. -MHSATC</i>	Principles of Business & Entrepreneurship – <i>U.A.</i>
Construction Technology – <i>U.A. -MHSATC</i>	Programming Fundamentals – <i>U.A.</i>
Consumer Math	Residential Finish Carpentry – <i>U.A.</i>
Creative Arts – <i>U.A.</i>	School Store Experience – <i>U.A.</i>
Creative Cooking – <i>U.A.</i>	3D Art – <i>U.A.</i>
Culinary Arts I & II – <i>U.A. -MHSATC</i>	2D Art – <i>U.A.</i>
Data Structure – <i>U.A. -MHSATC</i>	

Within the context of the courses listed above, students use and apply math concepts and procedures accurately to solve real world problems.

State of New Hampshire Department of Education 4th Unit of Math Requirement.

Ed 306.27 Students shall engage with and apply English and mathematics graduation competencies during every year they are enrolled in high school even if graduation competencies for English and mathematics have been demonstrated. Such engagement may occur through integration of these graduation competencies in courses focused on content areas other than English or mathematics. Such engagement shall support students to be college and career ready in mathematics and English/Language Arts.

NH DOE comment:

The intent of this section is to ensure that students are engaged in English Language Arts and Mathematics competencies throughout their high school education, although the credit requirement for ELA is 4 credits and Math is 3 credits.

2019-2020 Course Offerings

ENGLISH / LANGUAGE ARTS

4 English Credits are required for Graduation

9 th Grade	10 th Grade	11 th Grade	12 th Grade
World Literature Honors World Literature	The Individual in Society Honors The Individual in Society	American Literature Honors American Literature	British Literature AP English Literature & Composition Honors College Composition 101 (RS)
Creative Writing Mass Media Say It and Debate It! Science Fiction & Fantasy			
		The Hero's Journey Through Film & Literature Yearbook (11th Grade w/permission)	

World Literature
1.0 Credit/Year Long
Requirement
Grade 9

This course is designed to focus on the literature of various societies throughout the world, from classical times through to the modern era. Materials include novels and other selected readings for the various units of study. All students will write an extensive research paper on a social issue. Student evaluation is based on various summative and formative assessments.

World Literature
Honors
1.0 Credit/Year Long
Requirement
Grade 9
Grade 8 teacher recommendation
Completion of summer reading and
honors criteria

This course is designed for college bound students who enjoy extensive reading and writing. Students will demonstrate the ability to effectively analyze world literature of various societies, from classical times through to the modern era. Materials include novels, selected readings, and various media appropriate to the themes. All students will write an extensive research paper on a social issue. Student evaluation is based on various summative and formative assessments.

The Individual in Society
1.0 Credit/Year Long
Requirement
Grade 10

This course meets the requirement for 10th Grade English for graduation. Students analyze literature to explore their relationship with the world around them, including themes of race, war, and government. Students are required to read, write, and participate in class discussions. In addition to literature, students study grammar, and work on vocabulary development.

The Individual in Society
Honors
1.0 Credit/Year Long
Requirement
Grade 10
Grade 9 teacher recommendation,
Completion of summer reading and
honors criteria

This course meets the requirement for 10th Grade English for graduation and is preparation for four-year colleges. Successful and motivated students possess the ability to read well, complete work independently, and participate in class discussions, surrounding real world applications. Students analyze literature to explore their relationship with the world around them. In addition to literature, students study grammar, writing, vocabulary, and presentation skills and informational texts.

American Literature

1.0 Credit/Year Long

Requirement

Grade 11

This course is a chronological survey of American literature, non-fiction essays, and foundational documents, which provides students the opportunity to learn about how different periods and groups, such as the Puritans, Native Americans, the Romantics, the Depression, etc. have influenced and been influenced by the history, values, and culture of our country. The class incorporates reading, viewing, discussion, presentations, writing, and research.

American Literature

Honors

1.0 Credit/Year Long

Requirement

Grade 11

*Grade 10 teacher recommendation,
Completion of summer reading and
honors criteria*

This course is for top level, highly motivated students. It is a chronological survey of American literature and non-fiction essays and foundational documents, provides students the opportunity to learn how different periods and groups, such as the Puritans, Native Americans, the Romantics, the Depression, etc. have influenced and been influenced by the history, values, and culture of our country. The class incorporates extensive reading, viewing, discussion, presentations, writing, and research.

Seniors MAY choose from the following options:

English 12 - British Literature OR English 12 - AP English Literature & Composition OR 2 electives to fulfill their senior English requirement- This choice entails work beyond the level of Sophomore or Junior students taking the same elective.

Seniors may also choose any English Elective(s) in addition to this requirement

British Literature

1.0 Credit/Year Long

Grade 12

College credit may be available.

This course is designed for students interested in furthering their education at a four year university. It will combine a study of British Literature from Anglo-Saxon times to Modern Age. Students in this course are encouraged to improve their close reading, writing, vocabulary and critical thinking skills. Evaluation is based on tests, quizzes, written assignments, and individual and collaborative projects.

College Composition 101

Honors Elective

0.5 Credit/Semester/ Running Start

Grade 12

*4.0 Running Start College Credits are
available through Nashua Community
College. There is a fee of \$150.00, plus cost
for mandatory textbook.*

In this course, students learn to write clearly and effectively for defined audiences through a variety of strategies. Emphasis is on the writing process from pre-writing through drafting, revising and editing. Students gain confidence through learning the basic principles of effective expository composition and the application of these principles in writing essays and documented papers. Students become aware of the variety of strategies, behaviors, habits and attitudes, and choose those that help them improve. Students will also read and examine a wide variety of writers and writing styles.

**College Composition 102: Writing
About Literature**

Honors Elective

0.5 Credit/Semester/ Running Start

Grade 12

*4.0 Running Start College Credits are
available through Nashua Community
College. There is a fee of \$150.00, plus cost
for mandatory textbook.*

Building upon skills learned in College Composition 101 this writing and literacy course further explores the dimensions of writing based on selected readings that explore relevant themes and issues in today's world. Emphasis is placed on expository disciplines. The objective of the course is to enhance the depth and quality of students' written expression through sustained engagement in the semester theme. The student will practice writing about that theme for various purposes and audiences with systematic feedback from peers and the instructor. The course employs a workshop approach that incorporates critical reading, discussion, and a series of intense writing activities including analysis of rhetorical strategies used by other writers, and reading and responding to the work of others. Working in small groups, students will develop original ideas about the semester theme through active discussion and critique.

English Literature & Composition Advanced Placement 1.0 Credit/Year Long Grade 12 <i>Grade 11 teacher recommendation, Completion of summer reading and AP criteria</i> <i>College credit may be available.</i>	This course is designed for top level college bound students. It combines a comprehensive survey of classic and modern literature. Students study the novel, survey drama, and critically analyze short stories, poems, and essays. Students will deepen their understanding of a work's structure, style, and themes by extensive reading, discussing, and writing. Evaluation is based on written assignments, projects, and class discussions. Students are expected to take the AP Exam administered in May.
Creative Writing 0.5 Credit/Semester Elective Grade 9-12	In Creative Writing, students will explore various types of writing (narrative, descriptive, dialogue) with the ultimate goal of writing short stories. Poetry and one-act plays will also be studied and written. Multiple genres will be explored in each style of writing.
Say It and Debate It! 0.5 Credit/Semester Elective Grade 9-12	Do you like to argue your point? Would you like to be a better presenter or to do well in an interview? This class is an introduction to the skills of public speaking and debate. In a safe atmosphere students learn to enhance their public speaking skills for interviews, the classroom, the workplace, and for special events. Activities include speeches, debates, interviews, TED Talks, and classroom exercises
Science Fiction & Fantasy 0.5 Credit/Semester Elective Grade 9-12	In this survey course, students will study the works of contemporary science fiction and fantasy writers. Students will examine themes such as morality, survival, and innovation, by studying topics such as utopias, dystopias, clones, biological warfare, and the apocalypse. Students will be expected to read and write extensively, as well as to participate in class discussions.
Mass Media 0.5 Credit/Semester Elective Grade 9-12	Mass media is an important means of communicating and interacting with the world. From social media to photojournalism, investigative reporting to ethics and censorship, there's something here for everyone to consider. The class incorporates group and individual projects, research, selected readings, film, etc. to understand mass media from the past to the present and its impact on the individual as well as on the larger society.
The Hero's Journey Through Film & Literature 0.5 Credit Elective Grade 11-12	What makes a hero? Joseph Campbell, a world-renowned mythologist, believed that the hero and the hero's journey are patterns of human experience that underlie virtually all literature. The hero's journey is both timeless and contemporary. This elective is a film-based course, supplemented with short stories, nonfiction, myths, and personal experience to examine the world of the hero. Assessment is based on class participation, projects, reading, and writing.
Yearbook 0.5 Credit/Semester Elective Grade 11-12 <i>Grade 11 students must obtain permission from course teacher</i>	This course is designed to provide students with a collaborative environment to produce the school's annual yearbook. Students will learn the basics of desktop publishing, the basic elements of photography, and how to market the yearbook to the WLC community. Students take part in all aspects of production of the yearbook, including creating a theme, designing the cover and layout, and writing articles. Students will be required to make and meet weekly production goals.

Yearbook and Journalism

0.5 Credit/Semester

Elective

Grade 11-12

*Grade 11 students must obtain permission
from course teacher*

This course is designed to provide students with a collaborative environment to produce the school's annual yearbook. Students will learn the basics of desktop publishing, the basic elements of photography, and how to market the yearbook to the WLC community. Students take part in all aspects of production of the yearbook, including creating a theme, designing the cover and layout, and writing articles. Students will be required to make and meet weekly production goals. Students will also learn the fundamentals of publishing within journalism— including ethics, news literacy, multimedia usage, and reporting. Students will be responsible for researching current events, writing coherent articles, including modern media, and photography.

WORLD LANGUAGES

Most 4 year colleges require a minimum of 2 credits in a world language; many competitive colleges require 3 or 4 credits.

9 th Grade	10 th Grade	11 th Grade	12 th Grade
French I Spanish I	French II Spanish II	French III Spanish III	French IV Spanish IV

French I

1.0 Credit/Year Long
Elective
Grade 9-11

Students are introduced to the fundamentals of French grammar and vocabulary through listening, speaking, reading and writing in French. An important part of this course is the study of the culture of Francophone nations. It is explored through geography, cuisine, holidays, music, the arts, and online sites. Summative evaluation is based on communication, comprehension and production competencies.

French II

Credit/Year Long
Elective
Grade 10-11

*Successful completion of French I
Recommendation of French Teacher*

*It is recommended that students take
French II the year immediately following
taking French I*

French II continues the development of listening, speaking, reading, and writing skills in the language. French culture is studied through selected readings, videos, and other media. An important part of the course is the study of the culture of the Francophone World, particularly France, through the exploration of geography, history, holidays, cuisine, the arts, music, and online sites. Summative evaluation is based on communication, comprehension and production competencies.

French III

1.0 Credit/Year Long
Elective
Grade 11-12

*Successful completion of French II
Recommendation of French Teacher*

*It is recommended that students take
French III the year immediately following
taking French II*

This course continues the development of listening, speaking, reading, and writing skills in the language, reinforced by the use of a textbook, workbook, podcasts, online media, videos and selected readings. Students are expected to begin speaking more French in class, as they expand their communication skills. This class is intended for students with a comfortable command of French, who want to continue with a study of the language.

French IV

Credit/ Year Long
Elective
Grade 12

*Successful completion of French III
Recommendation of French Teacher*

*It is recommended that students take
French IV the year immediately following
taking French III*

Students will be expected to speak in French during class as they continue to expand their communication, reading, listening, and writing skills. There will be increased oral presentations, discussions, and stories read in French. This class is intended for students with a comfortable command of French, who want to continue with a study of the language.

Spanish I 1.0 Credit/Year Long Elective Grade 9-11	Students are introduced to the fundamentals of Spanish grammar and vocabulary through listening, speaking, reading, and writing in Spanish. Spoken language exercises are used extensively. An important part of the course is the study of the culture of the Hispanic world through the exploration of geography, history, holidays, cuisine, and the arts. Evaluation is based on the three world language competencies; production, comprehension and communication for summative assessments.
Spanish II Credit/Year Long Elective Grade 10-11 <i>Successful completion of Spanish I</i> <i>It is recommended that students take Spanish II the year immediately following taking Spanish I</i>	Spanish II continues the development of listening, speaking, reading, and writing skills in the Spanish language with a continuation of the fundamentals of Spanish grammar. Hispanic culture is studied through selected readings, videos, and other media. The course continues the study of the cultures of the Hispanic world through the exploration of geography, history, holidays, cuisine, and the arts. , music, TV. Evaluation is based on the three world language competencies; production, comprehension and communication for summative assessments.
Spanish III Credit/ Year Long Elective Grade 11-12 <i>Successful completion of Spanish II</i> <i>It is recommended that students take Spanish III the year immediately following taking Spanish II</i>	Spanish III continues the development of listening, speaking, reading, and writing skills in the Spanish language with a continuation of the fundamentals of Spanish grammar, as well as continued emphasis on Hispanic culture, studied through history, holidays, cuisine, and the arts. The use of the language as a tool for communication is stressed, and students are encouraged to converse in Spanish. Evaluation is based on the three world language competencies; production, comprehension and communication for summative assessments.
Spanish IV Credit/ Year Long Elective Grade 12 <i>Successful completion of Spanish III</i> <i>It is recommended that students take Spanish IV the year immediately following taking Spanish III</i>	Spanish IV continues the study of the finer points of Spanish grammar, reinforced by authentic readings, as well as the continued study of Hispanic culture. The use of the language as a tool for communication is stressed, and students are expected to converse in Spanish. Evaluation is based on the three world language competencies; production, comprehension and communication for summative assessments.

MATH

**3 Math Credits are required for Graduation including
1.0 Credit of Basic Algebra A & 1.0 Credit of Basic Algebra B or
1.0 Credit of Algebra I/Honors Algebra I.**

*Beginning with the class of 2019 students will need 4 years of math to earn a high school diploma. The fourth year may be earned outside of the math department via interdisciplinary coursework during senior year. Classes that are designated with \sqrt{x} will be accepted as a math unit.

The Department Head must approve all Math placements to ensure that each student is provided the opportunity to receive the most appropriate learning experience for his/her background and ability.

The following chart shows the possibilities for how a student could progress through the sequence of high school mathematics courses.

8 th Grade	9 th Grade	10 th Grade	11 th Grade	12 th Grade
8 th Grade Math	Basic Algebra A	Basic Algebra B	Honors The Power of Math (RS)	Consumer Math
			Geometry	Honors The Power of Math (RS)
8 th Grade Math	Algebra I	Geometry	Algebra II	Algebra II
				Pre-Calculus
8 th Grade Math	Honors Algebra I	Honors Geometry	Honors Algebra II	Consumer Math
		Geometry	Algebra II	Statistics I (RS)
Honors Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calculus (RS)	Pre-Calculus
				AP Calculus AB I & II
Honors Algebra I	Geometry	Algebra II	Consumer Math	Consumer Math
			Statistics I (RS)	Statistics I (RS)
Honors Algebra I	Geometry	Algebra II	Pre-Calculus	Pre-Calculus

Basic Algebra A




1.0 Credit/Year Long
Requirement
Grade 9

Teacher Recommendation

A scientific calculator is strongly recommended for this course.

Basic Algebra A is part one of the two year Algebra 1 program that provides time to practice, review, and master the concepts of Algebra 1. In part one, students will work with algebraic and numeric expressions, properties of real numbers including integers, distributive property, and square roots, absolute value, solving linear equations and inequalities, ratio and proportions, and linear functions. All of the topics are presented in the context of real world situations, graphing, and hands-on problems/activities

<p>Basic Algebra B 1.0 Credit/Year Long Requirement Grade 10</p> <p><i>Successful completion of Basic Algebra A</i> <i>A scientific calculator is recommended for this course.</i></p>	<p>Basic Algebra B is the second part of the two year Algebra 1 program. In this part, students will use and strengthen the skills they mastered in part one to work with linear inequalities, systems of linear equations and inequalities, quadratic equations/functions and exponential equations/functions. All of the topics are presented in the context of real world situations, graphing, and hands-on problems/activities.</p>
<p>Algebra I 1.0 Credit/Year Long Requirement Grade 9</p> <p><i>Teacher recommendation and/or successful completion of 8th grade math.</i> <i>A TI-83 Plus (or higher) graphing calculator is recommended for this course.</i></p>	<p>Algebra 1 is the first in a series of courses taken by students who plan to prepare themselves for two or four-year colleges. Students will work with algebraic and numeric expressions, properties of real numbers including integers, distributive property, and square roots, absolute value, solving linear equations and inequalities, ratio and proportions, and linear functions. Students will solve and graph linear equations and inequalities, exponents, polynomials, and quadratic equations and functions. Students will also be introduced to univariate and bivariate data analysis as well as the basic concepts of probability.</p>
<p>Algebra I Honors 1.0 Credit/Year Long Requirement Grade 8-9</p> <p><i>Grade 8 or Grade 9 with teacher/math placement committee recommendation.</i> <i>A summer assignment may be required for this course.</i> <i>A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course.</i></p>	<p>Honors Algebra 1 is the first in a series of courses taken by students who plan to prepare themselves for competitive four-year colleges. It is the first course in the Honors Math curriculum and may be taken in either 8th grade or 9th grade with teacher permission. Students will continue to grow their math skills through work with a focus on linear and quadratic equations and functions. Students will also be introduced to univariate and bivariate data analysis as well as the basic concepts of probability. The graphing calculator and graphing computer software will be used extensively in the course to extend and apply all of these concepts.</p>
<p>Geometry 1.0 Credit/Year Long Requirement Grade 10-11</p> <p><i>Teacher recommendation and successful completion of Algebra 1.</i> <i>A scientific calculator a TI-83 Plus (or higher) graphing calculator, protractor and compass are recommended for this course.</i></p>	<p>Geometry is the second course in the series of courses intended for students who plan to prepare themselves for two year or four year colleges. The course is designed to give the student a more complete understanding of lines, angles, polygons, and circles, their relationships and their properties, as well as areas of 2-dimensional figures and surface area and volume of 3-dimensional shapes. Students will apply basic logic skills to the principles of geometric proof, and will build on their algebra skills in connection with geometric relationships both on and off the coordinate plane.</p>

<p>Geometry Honors 1.0 Credit/Year Long Requirement Grade 9-10</p> <p>Teacher recommendation and successful completion of Honors Algebra 1.</p> <p>A summer assignment may be required for this course.</p> <p>A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course.</p>	<p>Honors Geometry is the second course in the series of courses taken by students who plan to prepare themselves for competitive four-year colleges. The course is designed to give the student a more formal understanding of lines, angles, polygons, and circles, their relationships and their properties, as well as areas of 2-dimensional figures and surface area and volume of 3-dimensional shapes. Students will “learn the language” of geometry and apply logical reasoning strategies to the principles of geometric proof; they will build on their algebra skills in connection with geometric relationships both on and off the coordinate plane, including word problem applications. Students will also construct accurate representations of geometric figures using various methods.</p>
<p> The Power of Math: Quantitative Reasoning 1.0 Credit/Year Long/Running Start Elective Grade 11-12</p> <p><i>Successful completion of at least 2 high school mathematics credits.</i></p> <p><i>A scientific calculator is recommended for this course.</i></p> <p><i>4.0 Running Start College Credits are available through Nashua Community College. There is a fee of \$150.00, plus cost for mandatory textbook.</i></p>	<p>Quantitative Reasoning is designed to expose the student to a wide range of general mathematics, problem solving and critical thinking skills, along with the use of technology, will be emphasized and reinforced throughout the course as the student becomes actively involved in solving applied problems. Topics included: Number Theory and Systems, Functions and Modeling, Finance, Geometry/measurement and Basic Right Triangle Trigonometry, Probability and Statistics, and selected subtopics. The scientific calculator and various web-based applications will be used extensively in this class.</p> <p><i>Note: College credit may be available with a final grade of C or better.</i></p>
<p> Algebra II 1.0 Credit/Year Long Requirement Grade 11-12</p> <p>Teacher recommendation and successful completion of Geometry.</p> <p>A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course</p>	<p>Algebra II continues the series of courses for students who plan to prepare themselves for two year or four year colleges. In this course, students will develop the algebraic skills needed in higher mathematics. They will recognize algebra as the study of the structure of the system of numbers including complex numbers. Students will extend their skills in operating with different types of functions, including linear, quadratic, polynomial, exponential and logarithmic functions. Other topics such as matrices and linear programming may be covered as time permits.</p>
<p> Algebra II Honors 1.0 Credit/Year Long Requirement Grade 10-12</p> <p><i>Teacher recommendation and successful completion of Honors Geometry.</i></p> <p><i>A summer assignment may be required for this course.</i></p> <p><i>A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course.</i></p>	<p>Honors Algebra II is the third course in the honors series of courses taken by students who plan to prepare themselves for competitive four-year colleges. In this course, students will develop the algebraic skills needed in higher mathematics. They will recognize algebra as the study of the structure of the system of numbers including complex numbers. Students will extend their skills in operating with different types of functions, including linear, quadratic, polynomial, exponential and logarithmic functions. Other topics such as matrices and linear programming may be covered as time permits.</p>

√x Consumer Mathematics

0.5 Credit/Semester

Elective

Grade 11-12

*Successful completion of at least two high school mathematics credits.**A scientific calculator is recommended for this course.*

Consumer Mathematics is designed for students with good basic computational skills and a desire to learn how to apply these skills to practical problems confronting the intelligent consumer. Students will understand and exercise consumer choices, including personal income, savings and checking accounts, loans and other types of credit (including the costs of housing, transportation, etc.), personal budgeting, income tax preparation, insurance and investments.

√x Statistics I

Honors

0.5 Credit/Semester/Running Start

Grade 11-12

*Successful completion of Algebra II**4.0 Running Start College Credits are available through Nashua Community College. There is a fee of \$150.00, plus cost for mandatory textbook.**A graphing calculator is strongly recommended for this course.*

Introduction to Statistics is a course for any student interested in careers in business, social sciences, or any math/science related field. The course is designed to show the student how to understand and interpret statistical results and data more accurately. Topics include scales of measurement, random sampling, graphs and tables, measures of central tendency, probability and probability distributions, confidence interval, error and sample size estimation, hypothesis testing, linear correlation, regression analysis, and prediction. The graphing calculator will be used extensively in this course. Note: College credit may be available with a final grade of C or better.

√x Pre-Calculus

Honors

1.0 Credit /Year Long/Running Start

Elective

Grade 11-12

*Teacher recommendation and successful completion of Honors Algebra II.**A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course.*

Pre-Calculus is designed for the student who desires preparation for studies in college calculus. This course will provide the student with a solid understanding of the trigonometric ratios from both a triangle and a function perspective; the student will relate the graphs to the properties of the ratios, solve real-world problems that apply these ratios, and develop and apply identities that relate the trigonometric functions to each other. Students will also work with various other function types, including polynomial, rational, radical, exponential and logarithmic expressions. Students will develop and apply concepts related to vectors and parametric equations; as time permits, they will explore and apply the basic principles of continuity, limits, and derivatives.

√x Pre-Calculus

1.0 Credit/Year Long

Elective

Grade 11-12

*Teacher recommendation and successful completion of Algebra II.**A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course.*

Pre-Calculus is designed for the student who desires preparation for studies in college calculus. This course will provide the student with a solid understanding of the trigonometric ratios from both a triangle and a function perspective; the student will relate the graphs to the properties of the ratios, solve real-world problems that apply these ratios, and develop and apply identities that relate the trigonometric functions to each other. Students will also work with various other function types, including polynomial, rational, radical, exponential and logarithmic expressions. Students will develop and apply concepts related to vectors and parametric equations.

√x AP Calculus AB - I

Honors

0.5 Credit/Semester 1/Running Start

Grade 12

Teacher recommendation and successful completion of Honors Pre-Calculus.

4.0 Running Start College Credits are available through Nashua Community College. There is a fee of \$150.00, plus cost for mandatory textbook

A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course.

AP Calculus AB - I is the first semester of a 2 semester course that is designed to give the student a solid foundation in the concepts of college calculus. Students will develop and apply concepts related to limits, neighborhoods, and continuity; derivatives and techniques of differentiation; applications of derivatives both with and without the graphic calculator.

Note: College credit may be available with a final grade of C or better.

√x AP Calculus AB - II

Honors

0.5 Credit/Semester 2/Running Start

Grade 12

Teacher recommendation and successful completion of Honors Calculus I.

4.0 Running Start College Credits are available through Nashua Community College. There is a fee of \$150.00, plus cost for mandatory textbook

A TI-83 Plus (or higher) graphing calculator is strongly recommended for this course.

AP Calculus AB - II is the second semester of a 2 semester course that is designed to give the student a solid foundation in the concepts of college calculus. Students will develop and apply concepts related to integrals and techniques for anti-differentiation; applications of integrals including area under the curve and volume, both with and without the graphing calculator.

Note: College credit may be available with a final grade of C or better.

SCIENCE

3 Credits of Science are required for Graduation

***Beginning with the class of 2018 Chemistry will no longer be a graduation requirement**

9 th Grade	10 th Grade	11 th Grade	12 th Grade
Integrated Science (Lab) Honors Integrated Science (Lab)	Biology (Lab) Honors Biology (Lab)		
<div>√x Engineering Design & Problem Solving</div> <div>Forensic Science</div> <div>√x Environmental Conservation</div>			
	<div>√x Astronomy (Lab)</div> <div>√x Basic Human Anatomy & Physiology (Lab) – (RS)</div> <div>√xChemistry (Lab)</div> <div>√x Honors Chemistry(Lab)</div> <div>√xHonors Physics (Lab)</div> <div>Milford High School & Applied Technology Center</div> <div>-Bio-Technology Program-</div> <div>√x Microbiology Principles & Practices (Lab)</div> <div>√x Biotechnology/Genetics (Lab)</div>		

Integrated Science
1.0 Credit/Year Long
Requirement
Grade 9

This course is designed to develop a students' understanding of Earth and Space and Physical Science concepts. Students will gain mastery of relevant science topics through inquiry based activities, reading passages, lectures and videos, and summative projects. Students will develop an awareness of the importance of scientific principles in everyday life and will develop critical thinking skills essential in science and in life. By the end of this course, students will be able to create physical and conceptual models describe the process governing the formation, evolution and workings of the universe and Earth's place in it. Demonstrate an understanding of the forces and motions on Earth and demonstrate an understanding of human impact on Earth's systems.

Integrated Science
Honors
1.0 Credit/Year Long
Grade 9

*Middle School Math and Science Teacher
Recommendation, completion of summer
work and honors criteria*

This course is designed to develop a students' understanding of Earth and Space and Physical Science concepts with an emphasis on mathematics and computational thinking. Students will gain mastery of relevant science topics through inquiry based activities, reading passages, lectures and videos, and summative projects. Students will develop an awareness of the importance of scientific principles in everyday life and will develop critical thinking skills essential in science and in life. By the end of this course, students will be able to create physical and conceptual models describe the process governing the formation, evolution and workings of the universe and Earth's place in it; demonstrate an understanding of the forces and motions on Earth and demonstrate an understanding of human impact on Earth's systems.

<p>Engineering Design & Problem Solving 0.5 Credit Elective Grade 9-12</p>	<p>This course emphasizes solving engineering problems, from well-defined problems to open ended problems to real world applications. Students will apply critical thinking skills to justify a solution from multiple design options. Students will use the engineering design process to investigate, design, plan, create and evaluate solutions. By the end of this course students will be able to apply multiple tools to produce and present working drawings, solid model renderings, and prototypes to design for people's needs, values, and social patterns, analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants and analyze a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.</p>
<p>Forensic Science 0.5 Credit/Semester Elective Grade 9-12</p>	<p>Forensic science is course rich in inquiry based exploration and lab investigation which applies many disciplines of scientific study such as biology/anatomy, chemistry, and physics to solving crimes. This course uses a structured and scientific approach to the investigation of crimes of assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of criminal behavior. Students will learn terminology and investigative procedures related to crime scene, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes. Using inquiry based scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, forensic odontology, handwriting analysis and forgery, trace analysis, ballistics, DNA fingerprinting and blood spatter analysis.</p>
<p>Biology Requirement 1.0 Credit/Year Long Grade 10</p>	<p>This course introduces students to many of the fundamental biological concepts thus increasing the students' understanding of themselves as living organisms. Main topics include- unity and diversity among life forms, Structures and Processes, Heredity and Evolution. Students will through investigations and activities explore the themes and concepts. Students will be able to understand that science plays a significant role in our everyday lives.</p>
<p>Honors Biology Requirement 1.0 Credit/Year Long Grade 10</p> <p><i>Teacher recommendation B or better in Integrated Science</i></p>	<p>Students will engage in learning topics in Biology in greater depth and application. Through hands-on activities, problem solving and scientific reading and writing students will gain understanding of Structures and Processes, DNA, Genetics and Heredity, Unity and Diversity of life forms and Natural Selection and Evolution. Honors student will problem solve creatively, study independently and communicate effectively for formative and summative assessments.</p>
<p>Astronomy (LAB) 0.5 Credit/Semester Elective Grade 10-12</p>	<p>This course is an introduction to modern astronomy. The course adopts a conceptual approach to understand the nature of science and physics concepts through the eyes of astronomy. Topics will include the motion of the night sky, the nature of light, stars and stellar evolution, black holes, the Big Bang Theory, universal expansion, and Einstein's theory of relativity. Methods of assessment will include tests, projects, computer simulations, laboratory experiments and activities.</p>

Basic Human Anatomy & Physiology 1.0 credit/Year Long /Running Start Elective Grade 11-12	This is a year- long course designed for students interested in learning about the human body and interested in pursuing a career in health- related field. Students will explore the systems of the human body through lectures, lab models and dissection of various organs such as heart, brain, eyes and kidneys. To be successful a student will demonstrate effective time management and good study skills. Content addressed will include- orientation of the human body, histology and various complex systems of the human body.
4.0 Running Start College Credits are available through Nashua Community College. There is a fee of \$150.00 <i>Successful completion of Honors Biology or Biology with a grade of C +</i>	
√x Chemistry 1.0 Credit/Year Long Elective Grade 11-12	Chemistry is designed to introduce the college career student to the physical and chemical properties of matter. This course requires good Algebra 1 skills to interpret laboratory work and to perform stoichiometric and gas law calculations. Students will be introduced to laboratory techniques and safety, unique to the chemistry lab. They will become familiar with elements and compounds, their properties and how they react with each other. Topics covered include: measurement and dimensional analysis, atomic structure through the Bohr model, and a simplified introduction to the quantum model, periodic law and periodic trends, the mole, chemical bonding, notation and naming, stoichiometry, kinetic theory and the gas laws, and acid/base chemistry. Laboratory work is an integral part of the course. Students will be evaluated on tests and quizzes, laboratory work, class work and reports.
√x Chemistry Honors Credit/Year Long Elective Grade 11-12	The course is designed as a lab course for college bound students who plan to major in science or a related field. Students taking this course should be highly motivated and able to work independently. Significant homework and reading will be required and students must have a strong math background. Topics will include lab safety, measurement and dimensional analysis, atomic structure through the Bohr model, and a simplified introduction to the quantum model, periodic law and periodic trends, the mole, chemical bonding, notation and naming, stoichiometry, kinetic theory and the gas laws, and acid/base chemistry. Every unit will include a hands-on lab activity. The student will keep a science notebook that will include worksheets, labs, diagrams, news articles and notes.
<i>Teacher recommendation and successful completion of Honors Algebra I and summer assignment(s).</i>	
√x Environmental Science 0.5 Credit/Semester Elective Grade 9-12	This course will provide an understanding of the biodiversity of our local ecosystems and what we can do to conserve them for future generations. Topics will include understanding the human generated environmental impacts with a focus on the Nature of Science and learn proper field techniques for collecting data. By the end of this course, students will be able to create physical and conceptual models of Earth's interrelated systems (geosphere, hydrosphere, biosphere and atmosphere), demonstrate an understanding of the human impact on Earth's systems and analyze the values and beliefs inherent in environmental decision-making and the decisions of private and governmental decisions on the management of natural resources in the environment.

\sqrt{x} Physics Honors 1.0 Credit/Year Long Elective Grade 11-12 <i>Teacher Recommendation and Pre-Calculus or Trigonometry taken concurrently, and summer assignment(s).</i>	Physics is for the student aiming for a career in sciences, engineering, and some areas of medicine; for example, physical therapy. Students who are considering a 2-year program in a technical area should also consider this course. Topics studied include measurement, vectors and vector analysis, the laws of motion and their application, momentum, forces, work and energy, heat, waves, light and optics, electricity and magnetism. Modern physics and other topics will be studied as time allows. Laboratory work is an integral part of the course. Students will be evaluated on tests, quizzes, laboratory work, class work and reports.
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Biotechnology Program Completion - Milford High School & Applied Technology Center.

BIOTECHNOLOGY is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass both Microbiology: Principles & Practices and Biotechnology/Genetics with a grade of “C” or better.

Students are eligible to earn *Industry-Validated Certificates* or *Credentials* by passing Third-Party exams administered to all completers.

√x **Microbiology Principles & Practices**

1.0 Credit/Fall Semester

Dual College Credit Option/Fee

Elective

Grade 10-12

Prerequisite: Completion of Biology with a grade of “C” or better.

Contracts for Honors level credit are available and will require students to pursue an independent research project to be presented at a state or regional science exposition.

Students must be able to work well with others in groups.

Microbiology is an advanced laboratory and activity based program meant to introduce students to principles and practices of medical microbiology. *Microbiology* is an essential course for any student interested in a career in the life sciences such as Nursing, Microbiology, Genetics, Biochemistry, Forensic Science, Medicine or Veterinary Science. Microbiology. Related topics include the identification of microorganisms along with nature and behavior of microorganisms using a variety of methods and techniques. The determination of how diseases are spread, their clinical features, laboratory diagnosis and appropriate control measures will also be studied.

Expectation: Complex Thinker, Quality Producer

√x **Biotechnology/Genetics**

1.0 Credit/Fall Semester

3.0 Dual College Credit Option/Fee

Elective

Grade 10-12

Prerequisite: Successful Completion of Biology A or Honors

This class is intended to expose students to various biotechnology fields such as microbial, agricultural, animal, forensic, bioremediation, aquatic, and medical. This class engages the student in several areas such as molecular biology, cell biology, immunology and bioethics. Techniques discussed and used in the laboratory will include genetic engineering for the expression of a specific protein and immunoassay development in order to develop monoclonal antibodies. Through recreations/replications of actual industry investigations and intense laboratory efforts, students will perform individual research projects. Students will maintain lab equipment and will gain experience writing technical labs, protocols, and a formal research paper. Guest speakers will highlight the course work as well as industry related field trips. Mini-internships are available for the very motivated students. Students interested in pursuing careers in forensic science, nursing, microbiology, genetics, biochemistry, medicine or veterinary science will find Biotechnology a strong component of these career fields.

(This honors level course can be used to fulfill a one credit science elective.)

Expectation: Complex Thinker, Quality Producer

SOCIAL STUDIES

3 Credits of Social Studies are required for Graduation

9 th Grade	10 th Grade	11 th Grade	12 th Grade
World History Honors World History	U.S. History Honors U.S. History	U.S. Government & Economics Honors U.S. Government & Economics	
AP World History		AP U.S. History	
American Military History Street Law			
	Genocide and Holocaust Studies Philosophy Psychology		

World History

1.0 Credit/Year Long
Requirement
Grade 9

This course is designed to focus on the social, economic, political, geographical and cultural aspects of various societies, from medieval times through to the modern era. Materials include various activities and selected readings for the various units of study. Student evaluation is based on research projects, oral and written assignments, periodic tests and quizzes, a research project and essays.

World History

Honors
1.0 Credit/Year Long
Requirement
Grade 9

Grade 8 teacher recommendation and successful completion of summer assignment(s).

This course is designed to focus on the social, economic, political, geographical and cultural aspects of various societies, from medieval times through to the modern era. Materials include various activities, selected readings and appropriate to the themes. Student evaluation is based on classroom participation, written and oral assignments, collaborative projects, periodic quizzes, a research project and essays.

AP World History

Honors
1.0 Credit/Year Long
Requirement
Grade 9-10

Grade 8 teacher recommendation and successful completion of summer assignment(s).

The purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. It emphasizes relevant factual knowledge used in conjunction with leading interpretive issues and types of historical evidence. The course builds on an understanding of cultural, institutional and technological precedents that, along with geography, set the human stage. Periodization, explicitly discussed, forms an organizing principle for dealing with change and continuity throughout the course, along with consistent attention to contact among societies that form the core of world history as a field of study

In order to incorporate these facets of the APWH course, students will have a variety of assessments. This will include the incorporation of primary documents and their analysis. Also, several essays per unit, and frequent Document Based Quizzes (DBQs) will be given. Quizzes in the style of the multiple-choice test, will be given in order to assess assigned reading in the textbook. Analysis of first hand

documents will be executed in several ways. The most frequent style of analysis will be DBQ's. Other methods that will be used are graded discussions during which the instructor will pose open-ended questions and students will discuss the topic of the document with one another. Also, students will role-play from the different readings and re-enact the experiences of the people discussed.

U.S. History

1.0 Credit/Year Long
Requirement
Grade 10

U.S. History is designed to engage students in an intense examination of American history from the civil war to today. This course will focus on the economic, social, cultural, and political movements that have influenced the course of American history, while at the same time promoting an understanding of our changing role in world affairs. Materials will include various media, text and sources appropriate to the themes. Student evaluation is based on classroom participation, periodic quizzes, written and oral assignments, and research projects.

U.S. History

Honors
1.0 Credit/Year Long
Requirement
Grade 10

Grade 9 teacher recommendation and successful completion of summer assignment(s).

Honors U. S. History is designed for students who have a strong aptitude in Social Studies and a willingness to pursue the thematic study of U. S. History in depth and using a variety of methods. The basic text will serve as a student resource and will be supplemented by various assigned readings. A high degree of class participation will be expected of students. Oral and written assignments, position papers, and serious research will make up the basis of evaluation. Students should have strong reading and writing skills, and be capable of dealing with large amounts of material. Students should expect a course with strict standards. There is a summer reading component to this course.

AP U.S. History

Advanced Placement
1.0 Credit/Full Year
Elective
Grade 11-12

Teacher recommendation and successful completion of Honors U.S. History is required.

This is a college level history course designed to meet the needs of highly motivated students who have a strong interest and ability in history. The student is expected to read and analyze both primary and secondary source materials and to demonstrate the ability to interpret and evaluate these sources. The course is content driven with heavy emphasis on written critical analysis. Extensive reading writing and class discussions are integral components of the program. The course is organized into nine historical periods that run from the pre-colonial era to the present. The key concepts, supporting concepts, and historical developments that are required knowledge for each period are included. Students will develop historical thinking skills by investigating the past in ways that reflect the discipline of history, most particularly through the exploration and interpretation of a rich array of primary sources and secondary texts, and through the regular development of historical argumentation in writing.

The AP® program in United States History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials, their relevance to a given interpretive problem, their reliability, and their importance, and to weigh the evidence and interpretations presented in historical scholarship. The course develops the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively.

U.S. Government & Economics 1.0 Credit/Year Long Requirement Grade 11	This course has been designed for students in grade 11. It is a survey course of the American system of government with a separate focus on capitalism in America. Course work will include daily assignments, as well as election projects, current events assignments, topic papers, and oral presentations.
U.S. Government & Economics Honors 1.0 Credit/Year Long Requirement Grade 11 <i>Grade 10 teacher recommendation and successful completion of summer assignment(s).</i>	This course has been designed for students in grade 11. It is a survey course of the American system of government with a separate focus on capitalism in America. Course work will include daily assignments, as well as election projects, current events assignments, topic papers, and oral presentations. There is a summer reading component to this course.
American Military History 0.5 Credit/Semester Elective Grade 9-12	American Military history is a survey of military history and the interaction between society and military institutions, technology and strategy from 1763 to the present. The course will also cover the philosophical, psychological, political and economic impact that warfare has had on the United States. The course will focus on such questions as how changing "styles" of warfare, the composition of the military establishment (militias, citizen armies, paid professionals, mercenaries), and the transformations in military technology have impacted upon state and society. The course examines all of the United States wars and major conflicts, including the War of Independence, War of 1812, Mexican War, Civil War, Spanish-American War, World War I & II, Korean War, Vietnam War, the Persian Gulf Wars, Operations Iraq and Enduring Freedom
Genocide and Holocaust Studies 0.5 Credit/Semester Elective Grade 10-12	What drives an ordinary person to commit atrocities? How does the world stand by and do nothing as mass-killings occur? Why are victim groups chosen? How do victim groups fight back? How does the rest of the world respond? All these questions will be looked at in class. Guest speakers will present throughout the course. Primary source analysis and film will be used to deliver content. Students will be assessed using inquiry projects, persuasive essays and research papers, formal debates, quizzes and tests on the historical events.
Street Law 0.5 Credit/Semester Elective Grade 9-12	This course examines law related subjects relevant to the student's life. Topics include criminal law and procedure, the law of torts and civil procedure, family and juvenile law. Further, other discussion topics will include law enforcement, corrections, probation and parole, and the court system. The course emphasizes individual accountability and the role of law in American society. A text is provided and regular homework includes chapter assignments, readings, essays and critical thinking exercises.
Philosophy 0.5 Credit/Semester Elective Grade 10-12	Introduction to Philosophy examines the history and various areas of philosophical study from the Ancient Greeks to modern times. The course will primarily examine the connections between human nature and the types of political philosophy that exist. This course will also focus on how philosophy affects our daily lives and why studying philosophy is important. We will be using materials from <i>Plato's Republic</i> , <i>Sophie's World</i> , <i>1984</i> , <i>Brave New World</i> , <i>Anthem</i> .

Psychology

0.5 Credit/Semester

Elective

Grade 10-12

This course is designed to introduce the principles and concepts of psychology to seniors and to provide an opportunity to gain some insight into themselves as individuals. The course uses experimentation and the Socratic method in a discussion framework, to gain an understanding of the basic psychological concepts. Student evaluation is based on class participation, review quizzes, contemporary psychological research assignments, a book review, a psychological experiment and a final exam. Students should expect a course with strict standards. An Honors option is available in this course. The Honors option requires the student to complete specific enrichment activities for each unit of the course over and above the basic requirements of the class.

ART

1.5 Credits in Art, Music, Technical Education, or
Family and Consumer Science are required for Graduation

9 th Grade	10 th Grade	11 th Grade	12 th Grade
<div>√x All That is 2-D</div> <div>√x Everything Else is 3-D</div> <div>Exploring the Mysteries of Art</div>			
	Adventures in Computer Art		
<div>Milford High School & Applied Technology Center</div> <div>-Graphic Arts Program-</div> <div>Adobe Photoshop</div> <div>Animation</div> <div>Graphic Design</div> <div>Marketing I</div> <div>Screen Printing</div> <div>-Video Production Program-</div> <div>Video Production I</div>			
	Video Production II		

\sqrt{x} **All That is 2-D**
0.5 Credit/Semester
Elective
Grade 9-12

This course is designed to introduce the student to the world of two-dimensional art. Project based, it is created to help students become aware of the great potential and importance the visual arts play in self-expression and problem solving. The class will experience basic media and techniques used in creating artwork on a flat plane. Students give and receive feedback about their projects through informal critiques. This course includes forms of drawing, painting and collage work. Exploration into the Elements and Principles of Art (line, shape, color, value, texture, harmony and balance) are emphasized in each project. The class offers a sound introduction to studio art.

\sqrt{x} **Everything Else is 3-D**
0.5 Credit/Semester
Elective
Grade 9-12

This introductory course introduces the student to the world of three-dimensional art. Class members will explore art in the round as well as work created in base relief. A project based class; students are encouraged to increase their self-expression and to solve problems relatively. Explanation into the Elements of Principles of art, such as; form, balance, texture, color are emphasized in each project. This course offers a sound introduction to studio art, and works together with All That is 2D! to form a comprehensive base for further art courses.

Exploring the Mysteries of Art
0.5 Credit/Semester
Elective
Grade 9-12

For students who are interested in learning how and why various artworks have been created through time, this course will help to unfold some of the mysteries! Classes are centered on group discussions and projects related to the beliefs, culture and outside forces of the time periods studied.

Adventures in Computer Art

0.5 Credit/Semester

Elective

Grade 10-12

Successful completion of All That is 2-D

Are you interested in bringing your art to the computer screen? Computer art is a fast-growing career in our society at the present time. This course offers an introduction to computerized art. Students will explore color theory and perspective as created on a computer screen. Elements and Principles of Art are developed through the use of line, value, texture, shape, color and balance. Project based, students create their own original and exciting artwork while exploring possible careers in the field.

Graphic Arts Program - Milford High School & Applied Technology Center

GRAPHIC ARTS is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass both Adobe Photoshop & Graphic Design with a grade of "C" or better.

Students are eligible to earn Industry-Validated Certificates or Credentials by passing Third-Party exams administered to program completers.

Adobe Photoshop

1.0 Credit

Dual Credit Option Available/Fee

Elective

Grade 9-12

Students will learn to use Adobe Photoshop Creative Cloud to perform many different image-processing techniques within the graphic arts field. Students will gain proficiency in the use of this software and several others through project work in areas such as digital photography, web design, digital video editing, and animations. Students will work with Comic Life, Adobe Acrobat, Adobe Bridge, iMovie, iPhoto, iTunes, Photo Booth and the Wacom Tablet.

Expectation: Quality Producer**Animation**

1.0 Credit

Dual Credit Option Available/Fee

Elective

Grade 9-12

Successful completion of Adobe Photoshop with a grade of C or better.

Students will learn to use Adobe Animate CC and a variety of related software packages such as Stykz and Garage Band to develop the essential animation techniques required for a career in the very exciting and growing multimedia industry. Students will also explore the history and evolution of early animation and the processes involved in creation of animations. Students will learn to use scanners, digital cameras, Wacom Tablets, and computer editing tools in the production of quality animations.

Expectation: Quality Producer**Graphic Design**

1.0 Credit

Dual Credit Option Available/Fee

Elective

Grade 9-12

Students will learn to use Adobe InDesign CC along with a variety of other graphics software packages and apps to complete projects that will include original layouts for magazine covers, posters, signs, logos, brochures and much more. Foundational knowledge of the history of printing and basic printing techniques in offset printing, screen-printing and letterpress will also be included.

Expectation: Quality Producer**Screen-Printing**1.0 Credit/Fall Semester – 2nd Year

Dual Credit Option Available/Fee

Elective

Grade 9-12

Students will learn to use Adobe Illustrator along with several other graphics software packages and apps to produce professional quality artwork. The Wacom Tablet is utilized to teach basic drawing techniques. Final products will be prepared for application to a variety of materials including paper, plastics, glass, metals, fabrics, and many others using the screen-printing processes. Common products made utilizing the screen-printing process include posters, labels, electronic circuit boards, decals, textiles and, of course, t-shirts.

Expectation: Quality Producer

Video Production - Milford High School & Applied Technology Center

VIDEO PRODUCTION is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass both Video Production I & II with a grade of "C" or better. Students are eligible to earn Industry-Validated Certificates or Credentials by passing Third-Party exams administered to all completers.

Video Production I

1.0 Credit

Dual Credit Option Available/Fee

Elective

Grade 9-12

Students in this class will develop skills in video and audio production, learning in studio and on remote. Students may do work outside of the studio covering school events. Students may have the opportunity to work with outside professional producers. Individual and small group production projects will allow students to hone their skills on state-of-the-art digital editing equipment and software.

Expectation: Social Expectations

Video Production II

1.0 Credit/Spring Semester

Dual Credit Option Available/Fee

Elective

Grade 10-12

Advanced students will further develop their skills in audio/video production. Planning and script writing are significant elements of this class. Students will continue with the use of digital video and audio technology, sophisticated video switching, and additional focus on motion graphic work.

Expectation: Social Expectations

*Successful Completion of Video Production I
with a grade of C or better.*

DIGITAL EDUCATION

To fulfill the Grade 9 0.5 ICT Requirement Grade 9 students can choose from the following Courses:

- Computer Fundamentals 9
- Digital Desktop Publishing I – if student successfully completed Digital Portfolio
- Digital Media I – if student successfully completed Digital Portfolio

9 th Grade	10 th Grade	11 th Grade	12 th Grade
Digital Pathways 9 & 10			
Coding & Programming I Digital Media & Publishing I Digital Media & Publishing II			
Milford High School & Applied Technology Center √ ^x Accounting I √ ^x Applied Business Applications √ ^x Business Principles √ ^x Marketing I			
Milford High School & Applied Technology Center √ ^x Accounting II √ ^x Accounting III Capstone Business Management Computer Science Principles (AP/H) Data Structures (Honors/AP) Java Programming (Honors) √ ^x Marketing II √ ^x Personal Finance & Career Management Programming Fundamentals			
Milford High School & Applied Technology Center Fashion Marketing Remarkable Service Sports & Entertainment Marketing			

Digital Pathways 9 & 10

0.5 Credit/Semester

Requirement

Grade 9-10

This course meets the ICT requirement.

Students may earn exemption by demonstrating proficiency per the exemption rubric requirements in 8th grade.

Students will explore various digital pathways such as digital media, website design, coding and programming, graphic design, digital multi-media, technical design, and software applications. This course is required for students who have not met the requirements in middle school in order to be exempt.

Coding & Programming I

0.5 Credit/Semester

Elective

Grade 9-12

Pre-requisite: Digital Pathways or course teacher authorization.

Students will explore coding and programming based upon their previous knowledge, such as Blockly and other block coding, Python and Java Script. We will learn to code robots in addition to building and managing add-ons for robotics with available robotics kits. Pre-requisite: Digital Pathways or exemption.

Digital Media & Publishing I

0.5 Credit/Semester

Elective

Grade 9-12

*Pre-requisite: Digital Pathways or course
teacher authorization.*

Student will explore many different forms of introductory media and publishing with choices including Microsoft Office Suite, Google tools, school-based publishing, video editing, Adobe design, website design, 3D print and design. Assessments will tie to student practical needs such as school assignments, research papers, college essays, resumes, etc.

Digital Media & Publishing II

0.5 Credit/Semester

Elective

Grade 9-12

*Pre-requisite: Digital Pathways or course
teacher authorization.*

Students will work on individualized needs with a variety of media and publishing choices beyond the introductory levels. Applications may relate to careers, workplace, and/or college readiness (research papers, citations, college essays, etc.).

Accounting - Milford High School & Applied Technology Center

ACCOUNTING is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass Accounting I & Accounting II with a grade of "C" or better. Students are eligible to earn Industry-Validated Certificates or Credentials by passing Third-Party exams administered to all completers.

Accounting is the language of business. If your college major will be any business, management or finance degree, two years (6 college credits) of accounting are required. Why not take Accounting at MHS and get a head start on your future?

Project Running Start enables you to earn those six credits while at the same time meeting your high school graduation requirements.

College Credits: Running Start College Credits are available through Manchester Community College. Sophomores, Juniors and Seniors that earn a grade of "C" or better in both Accounting I and II may apply for these credits. (ACT 113 - 3 Credits).

√x Accounting I

1.0 Credit/Fall Semester

Dual Credit Option Available/Fee

Elective

Grade 9-12

For Program completion students must take Accounting I and Accounting II

Accounting I provides strong foundational skills for the field of business and advanced accounting. Learn the accounting cycle using manual and computerized accounting systems for sole proprietorships, and partnerships. Students complete chapter work, quizzes, computer problems, projects and computer simulations. Students will be introduced to a variety of software packages i.e. Automated Accounting, QuickBooks Premier Accountant, Microsoft Word, Microsoft Excel, Google Docs and Google Sheets. If you are planning on a career in accounting, business, finance, management, marketing, banking or plan on going into business on your own, this course is a must!

Expectation: Quality Producer

√x Accounting II

1.0 Credit/Spring Semester

Dual Credit Option Available

Elective

Grade 10-12

Prerequisite: Successful completion of Accounting I with a grade of "C" or better.

For Program completion students must take Accounting I and Accounting II

Students will expand upon the knowledge of *Accounting I* and explore various businesses organized as corporations. They will analyze the adjustments and valuations of a business. Students will enhance their skills working with Automated Accounting and QuickBooks Premier Accountant. This semester course is highly recommended for any student in grades 10-12 planning a career in accounting, management, finance, marketing, banking or who plans on opening their own business.

Expectation: Quality Producer

√x Accounting III - (Capstone

1.0 Credit Dual Credit Option Available

Elective

Grade 11-12

Prerequisite: "C" or better in Accounting I AND Accounting II.

College Credits: Running Start College Credits are available through Manchester Community College. Sophomores, Juniors and Seniors that earn a grade of "C" or better in Accounting III may apply for these credits. (ACT 123 - 3 Credits)

Students will expand upon the foundational skills established in Accounting I and II. Focus will be on departmentalized corporate accounting systems. Students will continue to refine their skills in the Microsoft Suite of programs and the Google Platform. Quick Books Premier Accountant and Automated Accounting software will also be stressed. This course is helpful and appropriate for all students whether their interests are personal or business related and will certainly give students a head start with their future career and scholastic goals.

Expectation: Quality Producer

Business - Milford High School & Applied Technology Center

BUSINESS is a competency-based Career and Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass both Business Principles and Business Management classes with a grade of "C" or better.

Students are eligible to earn Credentials and Industry-Validated Certificates by passing the Third-Party exams administered to all completers.

Applied Business Applications

1.0 Credit/Fall Semester
Dual Credit Option Available
Elective
Grade 9-12

Students develop knowledge & skills required in a broad range of business and personal applications. Microsoft Office 2013 and Google Apps platforms will be used to prepare documents for home, school, and future work life situations. Students will develop critical thinking, decision making, problem solving and communication skills in this class. If you plan to enroll in the MHS/ATC Accounting program, Marketing program or Business program, the content of this class will prove extremely valuable.

Expectations: Self-Directed Learner

Business Principles

1.0 Credit/Spring Semester
Dual Credit Option Available
Elective
Grade 9-12

This foundational course is an overview of the various organizational structures in business. Students will be introduced to finance, marketing, operations and management. Students will gain practical knowledge while studying economic and social concepts related to laws governing business enterprises. Students will learn the importance of making informed decisions as both consumers and producers to gain a better overall understanding of the role of commerce in our economy. This course prepares students for additional future classes in the Business department.

Expectations: Quality Producer

Personal Finance & Career

Management

1.0 Credit
Dual Credit Option Available
Elective
Grade 10-12

Students will gain knowledge and skills that are necessary to function effectively as consumers, workers and responsible citizens in today's global economy. There will be multi-faceted focus on financial literacy, post-high school education/training options as well as keys to success in the modern workplace. Major topics include: income and taxes; budgeting; saving; credit; banking; checking account management. Students will explore a broad range of career topics with a focus on career "management". Students will research education and training needed for entry into particular career pathways as well as the ongoing training and education required for advancement. Students will learn problem-solving, decision-making and goal-setting skills required for success throughout their lifetimes. A professional portfolio will be developed as an essential element of this class.

Expectations: Quality Producer

Business Management

2.0 Credit
Dual Credit Option Available
Elective
Grade 10-12

Prerequisite: Satisfactory Completion of *Business Principles* with a grade of "C" or

Students in this class will explore the various forms of business ownership. They will be introduced to the roles and responsibilities of a business manager. Motivating, leading, managing and controlling are among the many skills necessary to be an effective manager in workplace settings. Students will explore concepts of organizational structure, financial & human resource management, production & marketing management and risk management. Students will develop a business plan and participate in the entrepreneurial trade show as a culminating experience in this class.

Expectations: Quality Producer

Marketing - Milford High School & Applied Technology Center

MARKETING is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass both Marketing I and Marketing II with a grade of "C" or better. Students may earn Third-Party *Industry-Validated Certificates* and *Credentials* by passing exams administered to all program completers.

Marketing I

1.0 Credit/Fall Semester
Dual Credit Option Pending
Elective
Grade 9-12

In this course students will learn the introductory skills needed to understand the world of Marketing. Students will learn purchasing, sales promotion, economics, distribution, pricing, risk management, the marketing mix, market research, and how to design a marketing plan. Knowledge will be applied through a broad variety of case studies and hands-on projects.

Expectation: Self-Directed Learner

Marketing II

1.0 Credit/Spring Semester
Dual Credit Option Pending
Elective
Grade 10-12

Students will further their marketing knowledge and explore more in depth marketing concepts through practical experiences, marketing research, case studies, and self-directed projects. Topics include finance, entrepreneurship, and career development. Students will be exposed to marketing experiences that will reinforce learned skills and competencies such as business management, leadership, administration and operations.

Prerequisite: Completion of Marketing I with a grade of "C" or better.

Expectation: Self-Directed Learner

Fashion Marketing

1.0 Credit
Elective
Grade 11-12

Students will be exposed to the broad spectrum of business and marketing functions as they relate to the fashion industry. They will gain working knowledge of textiles, promotions, visual merchandising, as well as the various career pathways that exist in this field. Applied academics in math & communications will be a focus of the class. Whether the students aspires to work in retail or perhaps sees themselves in a more entrepreneurial mode, this class will provide the most important foundational knowledge for both.

Prerequisite: Completion of Marketing I with a grade of "C" or better

Expectation: Self-Directed Learner

Sports & Entertainment Marketing

1.0 Credit
Elective
Grade 11-12

This is a specialized course for students with a specific interest in sports and/or entertainment marketing. Students can build on competencies previously introduced in other business and marketing classes as their study progresses into these fields of marketing. Students will gain competencies in sponsorship, branding and licensing and promotion for these fields. They will be exposed to a variety of sports and entertainment activities and learn about the many career options available in these fields.

Prerequisite: Completion of Marketing I with a grade of "C" or better.

Expectation: Self-Directed Learner

Computer Science - Milford High School & Applied Technology Center

COMPUTER SCIENCE is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass **Programming Fundamentals, Java Programming** and **Computer Science Principles** with a grade of “C” or better. Students are eligible to earn ***Industry-Validated Certificates*** or ***Credentials*** by passing Third-Party exams administered to all program completers.

College Credits: Running Start Credit is available through Nashua Community College. Sophomores, Juniors or Seniors enrolled in Programming Fundamentals, Java Programming or Computer Science Principles may apply for these credits

√x **Computer Science Principles (AP/H)**

1.0 Credit

Dual Credit Option Available/Fee

Elective

Grade 10-12

Prerequisites: Completion of **Programming Fundamentals** with a grade of “C” or better OR completion of **Algebra II** with a grade of “C” or better AND instructor permission.

Students will be introduced to the central ideas of computing and computer science. They will engage in activities to instill the ideas, processes and practices of computational thinking. They will gain appreciation of how computing and computer science is changing the world. In this class, students will learn how to access the world of mobile services and applications not only as consumers but as creators, as well. They will learn to develop entertaining and socially useful apps that can be shared with friends and family. Students will learn problem solving skills. This class is part of a collaborative project involving the College Board and National Science Foundation.

Expectation: Quality Producer

√x **Programming Fundamentals**

1.0 Credit/Fall Semester

Dual Credit Option Available/Fee

Elective

Grade 10-12

Prerequisite: Completion of **Algebra I** with a grade of “C” or better.

This course is intended for students with no prior experience in computer programming. Students are introduced to number systems, logic, ethics and other fundamental computer science topics. Students learn to write code using a variety of popular languages and styles including but not limited to: HTML/CSS, Java Script, Python and Java.

Expectation: Complex Thinker

√x **Java Programming Honors**

Credit/Spring Semester

Dual Credit Optional Available/Fee

Elective Grade 10-12

Prerequisite: Completion of **Algebra I** with a grade of “C” or better and **Programming Fundamentals** with a grade of “C” or better (or instructor approval).

This class is a pre-AP course and students will be expected to complete written assignments on various programming concepts including basic data structures. Emphasis is placed on procedural programming techniques, the development of algorithms to process both text and numerical information, coding and debugging techniques and documentation.

Expectation: Quality Producer

√x **Data Structures**

Honors

1.0 Credit/Spring Semester

Dual Credit Option Available/Fee

Elective

Grade 10-12

Prerequisite: Completion of **Java Programming** with a grade of “B” or better.

Students will learn program methodologies, algorithms, and data structures as they are implemented in Java. Applications of both mathematical & linguistic computing provide the context in which these topics are treated. Students create programs to solve logical and theoretical problems. This is an Advanced Placement class. Students taking this class are expected to take the standardized Advanced Placement test in May. Students achieving a qualifying score on the test can earn college credit.

Expectation: Complex Thinker

FAMILY AND CONSUMER SCIENCE

1.5 Credits in the following; Art, Music, Technical Education, or Family and Consumer Science are required for Graduation

9 th Grade	10 th Grade	11 th Grade	12 th Grade
Creative Arts			
	<p>Child Care & Parenting</p> <p>√x Creative Cooking</p> <p>√x For The Love of Leftovers</p> <p><i>Milford High School & Applied Technology Center</i></p> <p><i>-Culinary Arts Program-</i></p> <p>√x Culinary Arts I</p>		
		<p>Advanced Baking</p> <p>√x Culinary Arts II</p>	

Child Care and Parenting

0.5 Credit/Semester

Elective

Grade 10-12

Child Care and Parenting is a course designed to illustrate how the personal choices we make not only affect ourselves but affect others. This class explores the roles and responsibilities of parenting, and examines the different stages of human development. It addresses how the very definition of family changes as societal norms and values change, and the affect it has on individuals and the family unit. Human reproduction and responsibility, and other appropriate topics will be addressed. Students will be expected to plan, develop, and implement activities for children of preschool age.

√x **Creative Arts**

0.5 Credit/Semester

Elective

Grade 9-12

Welcome to Creative Arts! This class designed to enable students to use a variety of techniques and mediums to effectively communicate ideas. Students will demonstrate a respect and appreciation for diversity and creativity in others, and will also self- assess their own works of art. This is a project based class that allows students to work independently and at their own pace. Creative Arts is a very unique class and provides you with an opportunity to “just breathe” and let your creative juices flow

√x **Creative Cooking**

0.5 Credit/Semester

Elective

Grade 10-12

I want to satiate your palate with good eats! Welcome to Creative Cooking! A class designed to give you experience cooking a variety of different foods..... You may have a passion for cooking or may just be plain afraid of tackling recipes and stepping into the kitchen. Creative Cooking is an introductory course in food preparation and safety and sanitation. It is a semester long course designed to give you a collaborative cooking experience with your peers, and an opportunity to host on special occasions. You will demonstrate the ability to prepare, store, and serve aesthetically pleasing foods. Please join us as we discover superfoods and also feast on some traditional comfort foods.

√x For The Love of Leftovers

0.5 Credit/Semester

Elective

Grade 10-12

You get the best of both worlds: a little bit of Creative Cooking and a little bit of Creative Arts! Come join us in a relaxing atmosphere to transform everyday items into works of arts. In this class we have adopted the philosophy of “gathering all the scraps and making sure nothing is lost”. Students will be required to come up with appealing dishes from the leftovers we have accumulated and also create pieces of art work from unthinkable items. Get ready for loads of fun, coming up with ideas and drawing on other resources to see what you can create. This class is both collaborative and individual.

√x Culinary Arts Program - Milford High School & Applied Technology Center

CULINARY ARTS is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To become a completer in this program, students must pass both **Culinary Arts I** and **Culinary Arts II** with a grade of “C” or better. Students are eligible to earn **Industry-Validated Certificates** or **Credentials** by passing the Pro-Start exams administered to program completers

√x Culinary Arts I

2.0 Credit/Full Year

Elective

Grade 10-12

All CA I Students are responsible to purchase program approved chef's coat and hat.

Culinary Arts I is the first half of the Culinary Arts Program. Students learn to work in a professional kitchen with constant focus on sanitation and safety in a food production setting. Students learn techniques in baking as well as cold and hot food preparation. Windows on West Street, our on-campus restaurant, affords students the opportunity to develop “front-of-the-house” skills. Students learn cooperation & collaboration and how to function as a member of a team. These are recognized as highly desirable skills in the industry. Students in *Culinary Arts I* will begin to develop food service management skills. The curriculum is consistent with the State of New Hampshire Competencies for Culinary Arts and is based on the standards of NRAEF the National Restaurant Association Educational Foundation - **Pro-Start**.

Expectation: Quality Producer

√x Culinary Arts II

2.0 Credit/Full Year

Elective

Grade 11-12

Prerequisite: Completion of *Culinary Arts I* with a grade of “C” or better.

CA II students are responsible to purchase chef pants to complete their uniform. (approximately \$20.00)

Culinary Arts II offers advanced students the opportunity to enhance the skills learned in *Culinary Arts I*. The program continues to follow the *ProStart* curriculum developed by the NRAEF. Students are expected to provide high quality food preparation and professional table/counter service during the operating hours of Windows on West Street. Culinary Arts II students are expected to demonstrate leadership in the kitchen, bakeshop and dining room. Preparation for the Level II *ProStart* Certification Exam is a priority. The paid work experience embedded in the *Pro-Start* curriculum will take on increased significance for advanced students. The externship is NOT a requirement for program completion.

Expectation: Quality Producer

Remarkable Service

1.0 Credit/Semester

Elective

Grade 11-12

This one semester course, open to Juniors and Seniors ONLY, is designed to offer training in a skill set that they may find useful at many points throughout their lives. *Remarkable Service* offers real life experience with guest service, money handling, safety, sanitation and related situations in the Food Service /Hospitality industry. Class is available “C” Block only.

Expectation: Quality Producer

√x Advanced Baking

1.0 Credit/Semester

Elective

Grade 11-12

Use your creativity, artistic skills and passion to expand and refine your previous baking knowledge acquired in Culinary I. You will be preparing different types of crusts, doughs and fillings, cakes, tarts and traditional mini French pastries. You will become familiar with the various flavor and texture elements in successful plated desserts, by creating your own plated dessert featuring multiple components. Class will include technique and recipe demonstration, group discussions and presentations.

Expectation: Quality Producer

MUSIC

1.5 Credits in the following; Art, Music, Technical Education, or Family and Consumer Science are required for Graduation.

9 th Grade	10 th Grade	11 th Grade	12 th Grade
Chorus Concert Band Rock N' Roll, Pop Past & Present Strings & Keys			

Chorus

0.5 Credit/Full Year
Elective
Grade 9-12

Chorus is open to all students who want to sing. Students will learn the fundamentals of good singing technique, be able to sing in three or four part harmony, learn about choral music of different times and styles, and hopefully acquire an interest in choral singing as a recreational activity that could continue into adult years. Qualified students will be encouraged to participate in area and state music festivals. Attendance at all class functions, including rehearsals and concerts is mandatory.

Concert Band

0.5 Credit/Full Year
Elective
Grade 9-12

This instrumental music class is designed for students who play, or who want to play a concert band instrument (brass, woodwind, or percussion). It is open to students with prior music experience as well as beginners. Students will learn the basics of musicianship and ensemble playing, and will be exposed to music of different times and styles. Qualified students will be encouraged to participate in area and state music festivals. Instruction will be through individual lessons and group rehearsals. Attendance at all class functions, including rehearsals and concerts is mandatory.

Rock N' Roll, Pop Past & Present

0.5 Credit/Semester
Elective
Grade 9-12

This class is designed for students who want to take a music class, but don't want to be in a performing group. Students will explore how American Popular music has evolved. They will use multiple sources and media to learn about the roots of Rock and Roll – where it came from and who the major figures were. Topics will include the origins of Rock, the major contributors, how Rock and Roll is influenced by American culture (and vice versa), and how Rock and Roll morphed into other popular musical genres.

Strings & Keys

0.5 Credit/Semester
Elective
Grade 9-12

This class is designed for students who want to acquire basic and intermediate knowledge of the piano, keyboard or acoustic guitar. A combination of group and individual instruction will be used to meet the needs and abilities of the class. Piano and keyboard students will use a traditional piano method to learn the fundamentals of technique, musicianship and music theory, with a goal of being able to supplement the method book with music of their choice. Guitar students will aim for the same basic goals by using a combination of traditional music notation and guitar tablature. All students will be encouraged to explore the use of internet sites for tutorials and other supplemental projects. The basics of music theory will be taught mainly through application and classwork. This course is not intended for the accomplished guitarist who wants a place to jam.)

This course may be repeated with permissions of the teacher.

HEALTH

0.5 Credit of Health is required for Graduation

High School Health
0.5 Credit/Semester
Requirement
Grade 10

The purpose of high school health is to give students a platform of knowledge so they can move from healthy adolescents to a healthy adulthood. With this goal in mind the course addresses issues that are facing teenagers today. As the issues change, so does the course. Areas covered include, but are not limited to Fitness and exercise, anatomical systems, mental health and mental disorders. Tobacco, alcohol and drug use, human reproduction and birth, STD's, nutrition, non-infectious and infectious disease.

PHYSICAL EDUCATION

1.5 Credits in Physical Education is required for Graduation

9 th Grade	10 th Grade	11 th Grade	12 th Grade
Freshmen Physical Education			
Woods & Wheels			
	Fit For Life High School Physical Education Racquet & Net Sports		

Freshmen Physical Education
0.5 Credit/Semester
Requirement
Grade 9

This required physical education course is the first of a progression of courses offered at Wilton-Lyndeborough Cooperative High School that strives to promote, through total body movement, the health and welfare of all students. Emphasis will be placed on personal fitness, successful teamwork and sportsmanship. Participant will be involved in skill development and learn the rules and strategies in our co-curricular sports offerings, which include; basketball, badminton, touch football, personal fitness, soccer, field hockey, and volleyball, pickle-ball, softball, floor hockey. Skills, drills, rules and regulation are same as high school PE class.

Fit For Life
0.5 Credit/Semester
Requirement
Grade 10-12

This course is designed for students to improve their own fitness levels. Class size is limited to 12 students who will follow individualized fitness plans to develop improvement in the areas of muscular strength muscular endurance, flexibility, body composition, and cardio respiratory endurance. Each student will be circuit training 2 days per week on isokinetic nautilus machines, free weights and a variety of aerobic machines. Aerobic activities such as running, hiking, mountain biking, skipping rope, P90X, snow shoeing and cross country skiing will be 2 days a week depending on weather conditions.

High School Physical Education 0.5 Credit/Semester Requirement or Elective depending on amount of credit Grade 10-12	The essential aim of the physical education department is to provide each student with a basic knowledge and understanding of various sports and activities, to develop, through practice some skill; and to formulate positive, healthy attitudes and behaviors so they may participate in lifetime activities. During the class the student will be involved in a program of activity choices designed to give experiences in different sports and recreational activities.
Racquet & Net Sports 0.5 Credit/Semester Elective Grade 10-12	This course is designed to introduce students to sports that are played with racquets such as Tennis, Badminton, Volleyball and Pickle ball. Students will learn game history and rules. Emphasis will be placed on improvement of introductory and advanced sport skills and techniques. Each unit, students will participate in games and tournaments to utilize newly acquired and refined sport skills. Students will also strive to improve on personal physical fitness and the cardio-respiratory endurance needed to play these activities.
Woods & Wheels 0.5 Credit/Semester PE Elective Grade 9-12	<p>Students will participate in a hybrid course combining aspects of environmental conservation and outdoor education. Individuals will develop a deeper understanding of the importance of environmental sustainability through riding, trail building and advocacy, and the promotion of mountain bike sports.</p> <p>Physical education will provide students with opportunities to learn valuable life skills in the areas of mountain bike riding, maintenance, and repair. Students will work to build and develop trails to meet the needs of today's riders, and gain a greater understanding of effective trail building and design (from a rider's perspective). Due to the uncertainty of New Hampshire weather, activities could change to XC skiing for the latter part of the semester.</p>

TECHNOLOGY EDUCATION

9 th Grade	10 th Grade	11 th Grade	12 th Grade
		\sqrt{x} Field & Forest Engineering \sqrt{x} Green Woodworking and Joinery \sqrt{x} Woodworking I \sqrt{x} Woodworking II <i>Milford Applied Technology Center</i> \sqrt{x} Engineering Design Robotics	
		<i>Milford High School & Applied Technology Center</i> Advanced Construction Technology Advanced Engineering Design (Std.) Advanced Precision Machining I Basic Welding Construction Technology Precision Machining Residential Finish Carpentry	
		Advanced Precision Machining II Manufacturing/Automation Career Exploration (MACE) <i>Contoocook Valley Regional High School</i> -Firefighter/EMT Program- Firefighter I / EMT <i>Mascenic Regional High School</i> \sqrt{x} Automotive Service Technology I	
			\sqrt{x} Automotive Service Technology II

\sqrt{x} Field & Forest Engineering

0.5 Credit/Semester

Elective

Grade 9-12

This course is a survey of many of the core technological competencies that our industrial culture rests upon. This course has a strong scientific, academic, and design element as well as a great deal of hands-on experience. Students can expect to research and write extensively. With an emphasis on experiential and project based learning, course content will cover shop safety, tool maintenance and use, planning and design and material sourcing and selection. Forestry science and arboriculture will figure strongly in our learning. Many of our projects will begin with sourcing our own raw materials from the forests and fields around the school. Projects will include traditional woodworking skills as well as a selection of skills that may include stone carving and knapping; ceramics; fiber arts such as felting, spinning and making cordage; basketry, wattling, bark work, maple sugaring and other seasonally appropriate crafts. This course will focus on environmental awareness and stewardship as well as craft and materials knowledge, building skills that transfer well to the post-secondary economy.

√x Green Woodworking and Joinery

0.5 Credit/Semester

Elective

Grade 9-12

This course explores traditional woodworking and fine joinery techniques using primarily hand tools. This course has a strong academic planning and design element as well as hands-on practice, students can expect to research and write extensively. With an emphasis on experiential learning, course content will cover shop safety, tool maintenance and use, planning and design, selecting materials (and woods types), material assembly and final surface preparation. Many of the projects will begin with raw or green wood, and employ techniques for shaping wood that have been practiced by woodworkers for thousands of year. Skills practiced may include hewing, carving, riving, shaving, steam and green bending, and green to dry joinery. Students will expand their knowledge and experience through various projects, lessons, and vocabulary. This course will focus on mindfulness, craft, and materials knowledge, using skills that transfer well to the post-secondary economy.

√x Woodworking I

0.5 Credit/Semester

Elective

Grade 9-12

This course is appropriate for students with a range of woodworking experience, from “beginner” to “advanced.” This course has a strong academic planning and design element in addition to hands on practice, and students can expect to research and write extensively. Course content will be shaped in part by the interests and abilities of each class. Content will include shop safety, tools and equipment, planning and design, selection materials, materials assembly and final surface preparation. The class will promote a familiarity with traditional hand tools as well as portable power and machine tools. Students will expand their knowledge and experience through various projects, lessons, and vocabulary. The projects are designed to provide students as much experience as possible in a wide variety of woodworking and joinery techniques, using skills that transfer well to the post-secondary economy

√x Woodworking II

0.5 Credit/Semester

Elective

Grade 10-12

This class begins where Woodworking I ended. The principles learned in Woodworking I will create the foundation for projects in Woodworking II. This class begins where Woodworking I ended. Class includes a strong academic planning, mathematic, and design element as well as hands on practice. Students can expect to research and write extensively. Course content will be shaped in part by the interests and abilities of each class. Content will include shop safety, tools and equipment, planning and design, materials selection, preparation and assembly, and final surface preparation. The class will promote a familiarity with traditional hand tools as well as portable power and machine tools. Students will expand their knowledge and experience through various projects, lessons, and vocabulary. The projects are designed to provide students with as much experience as possible in a wide variety of woodworking and joinery techniques, using skills that transfer well to the employment economy. Students will have the opportunity to design and create larger scale projects.

Automotive Technology - Mascenic Regional High School Career Development Center

AUTO TECHNOLOGY is a competency-based Career & Technical Education program offered at the Mascenic Regional Career Development Center. To become a completer of this program, students must satisfactorily complete Automotive Service I and II.

NOTE: Applicants for Auto Technology must possess a valid NH driver's license with no violations.

√x **Automotive Service Technology I**

2.0 Credits Full Year

Dual College Credit Option/Fee

Elective

Grade 11-12

Applicants for Automotive Technology must possess a valid driver's license with no violations

In this first year of a two-year program, the students will learn skills needed to follow automotive environmental and safety practices as well as inspect, adjust, diagnose and repair the systems of the modern automobile. They will develop their skills by working on customer-owned and donated vehicles in our state-of-the-art facility. Automotive I students will receive training in steering & suspension systems, electronics, brakes, state inspection and engine performance. Students need good reading and math skills. Mechanical aptitude and good analytical skills are also helpful. The Automotive Service Technology program is offered at **Mascenic Career Development Center** and it is a full year course. Students interested must apply through their Student Services office. Students in this program **must provide their own transportation.**

√x **Automotive Service Technology II**

4.0 Credits Full Year

Dual College Credit Option/Fee

Elective

Grade 11-12

Applicants for Automotive Technology must possess a valid driver's license with no violations

In year two, students work on more complex repairs and tasks including training in engine repair, drivetrains, charging/starting systems and air bag systems. The NATEF competency-based curriculum will continue to be followed providing Automotive II students with skill development and practice in the essential auto service technician competencies expected in the industry.

College Credits: 4 Running Start College Credits are available through Nashua Community College. **Juniors and Seniors** enrolled in *Automotive Service Technology II* may apply for these credits..

Firefighter I Program - Contoocook Valley Regional High School (ConVal)
4.0 Credit/Full Year - Dual College Credit Option/Fee – Elective - Grade 11-12

FIRE SCIENCE/EMT is a competency-based Career & Technical Education program offered at Contoocook Valley High School in Peterborough. To become a completer of this program, students must satisfactorily complete *Firefighter I* which includes passing the written and practical exams supervised by the NH Department of Safety Division of Fire Standards and Training. Students must also complete *Emergency Medical Technician* training and pass the certification exam for that program.

The Region 14 Applied Technology Center @ Contoocook Valley High School, in collaboration with New Hampshire's Department of Safety offers the Firefighter I / EMT course. Upon successful completion of the program, students will receive a pro-board certification from the NH Division of Fire Standards and Training and EMS. The course follows a core curriculum that provides students with experience and knowledge in basic firefighting skills/responsibilities and emergency medical services. This is a double block class that runs the entire year.

Student Qualifications: Affiliation with a local Fire Explorer program, permission of the local fire chief, current school medical examination form, student essay, application and a personal interview. Students will be evaluated for height phobia, and claustrophobia. Students must have the stamina and physical ability to work in untenable conditions for several consecutive 30-minute durations.

*Students who successfully complete the program are eligible for articulated college credits at Lakes Region Community College. Fire Science is offered at **Contoocook Valley High School** in Peterborough. **Students interested must apply through Student Services and they must provide their own transportation.***

Firefighter I

2.0 Credits - Semester 1

Dual College Credit Option/Fee

Elective

Grade 11-12

Student Medical Release required by New Hampshire Department of Safety Division of Fire Standards and Training and Emergency Medical Services.

This course is offered in collaboration with the NH Fire Academy and provides students with experience and knowledge in basic firefighting skills and responsibilities. Educational objectives include knowledge of personal protective equipment, use of hose and nozzle handling, carrying and throwing ground ladders and many other skills necessary to perform as a volunteer or full-time firefighter. Participation requires students have the stamina and physical ability to work in difficult conditions for several consecutive 30-minute durations while wearing up to 75 pounds of protective gear.

Certification available in Firefighter 1, Hazardous Materials and Wildland.

Emergency Medical Technician

2.0 Credits - Semester 2

Dual College Credit Option/Fee

Elective

Grade 11-12

Student Medical Release required by New Hampshire Department of Safety Division of Fire Standards and Training and Emergency Medical Services.

Prerequisite: Successful completion of Firefighter I program with current certification in First Aid and CPR

This course is offered in collaboration with the New Hampshire Bureau of EMS and follows a national curriculum that provides students with experience and knowledge of the skills and responsibilities of an EMT. The primary focus of the Emergency Medical Technician is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. Emergency Medical Technicians perform interventions with the basic equipment typically found on an ambulance.

Upon completion of this course, students who are 18 years of age are eligible to take the EMT certification exam through the National Registry of EMTs.

Construction Technology - Milford High School & Applied Technology Center

CONSTRUCTION TECH is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass Construction Technology, Advanced Construction Technology and Residential Finish Carpentry with a grade of "C" or better. Students are eligible to earn Industry-Validated Certificates or Credentials by passing the Third-Party assessments administered to program completers.

√x Construction Technology I

1.0 Credit/Fall Semester

Elective

Grade 10-12

Students are encouraged to complete Woodworking Technology.

Contracts for Honors level credit are available and will require students to pursue an independent research project to be presented at a state or regional science exposition.

The *Construction Technology* class is the introduction to basic residential construction. Focus on appropriate use of construction related hand and power tools will be stressed. Students will have the opportunity to earn the OSHA 10-Hour Safety Certification. Students will engage in a variety of modules to develop and practice skills from blueprint reading to rough frame and basic finished construction. Upon successful completion of this class, students are encouraged to continue on to *Advanced Construction Technology* or *Residential Finish Carpentry*.

Expectation: Quality Producer

√x Advanced Construction Technology

1.0 Credit/Spring Semester

Elective

Grade 10-12

Successful completion of Construction Technology I with a grade of C or better.

Prerequisite: Completion of Construction Technology with a grade of "C" or better.

This course is the continuation of the Construction Technology Program. Students will review skills learned in Construction Technology. Students will then use these skills to perform more complex and challenging operations and projects such as building sheds, rough stair construction, exterior roofing and siding, roof calculation, advanced blue print reading, principles of foundations, building codes, basic deck construction, energy codes and insulation. Students completing Advanced Construction Technology with a grade of "C" or better are encouraged to enroll in Residential Finish Carpentry to become completers of the Construction Technology Program.

Expectation: Quality Producer

√x Residential Finish Carpentry

1.0 Credit

Elective

Grade 10-12

Prerequisite: Completion of Construction Technology with a grade of "C" or better..

This class offers students a discreet path whether they are entering the work force or continuing education. Students will learn all aspects of Residential Finish Carpentry. Components will encompass wall and ceiling coverings, interior door selection/installation, interior trim installation, and basic cabinetry. Students will walk away with a creative skill set applicable to personal or career endeavors. Students that complete *Residential Finish Carpentry* with a "C" or better are encouraged to enroll in the *Advanced Construction* class to complete the **Construction Technology Program**.

Expectation: Quality Producer

√x **Pre-Engineering Milford High School & Applied Technology Center**

PRE-ENGINEERING is a competency-based Career & Technical Education program offered at Milford High School & Applied Technology Center. To earn completer status in this program, students must pass **Engineering Design** and **Advanced Engineering Design** with a grade of “C” or better. Students are eligible to earn *Industry-Validated Certificates* or *Credentials* by passing Third-Party exams administered to program completers.

College Credits: *Running Start Credit* is available through Manchester Community College for Sophomores, Juniors & Seniors who enroll in *Engineering Design*, *Advanced Engineering Design*, *Robotics* and/or *MACE* (*Manufacturing/Automation Career Exploration*)

√x **Engineering Design**

1.0 Credits
Dual College Credit Option/fee
Elective
Grade 11-12

Students in this class develop their design skills as the central core of engineering. These concepts begin with focus on using engineering graphics as the primary means of communication using a variety of CADD software titles. These software packages are the same products used by professionals in mechanical engineering, architecture, civil engineering, and computer graphics. A series of projects are used to teach design process with emphasis on problem solving, brainstorming, criteria generation, decision-making, economics and project management.

Expectation: Complex Thinker

√x **Advanced Engineering Design**

1.0 Credits
Dual College Credit Option/fee
Elective
Grade 11-12

Students in this class have the opportunity to refine and expand upon the concepts learned in *Engineering Design*. Advanced topics include the integration of reverse engineering, basic machining (CAD/CAM) concepts, and 3D rapid prototyping to name a few. Each project expands knowledge from concepts learned in previous engineering classes.

Expectation: Complex Thinker

Robotics

1.0 Credits
Dual College Credit Option/fee
Elective
Grade 9-12

Students will work in two-person teams to design a robot to specifications. The course will cover the entire design process. Students will identify a problem, research possible solutions, design and prototype a working robot and finally assess both the effectiveness and the efficiency of their bot. Students will build their robots on the VEX platform. They will learn techniques of basic construction, fastening, motors & drive systems, power supplies and sensors.

Expectation: Complex Thinker

**Manufacturing/Automation Career
Exploration (MACE)**

1.0 Credits
Dual College Credit Option
Elective
Grade 11-12

Prerequisite: Completion of Engineering Design and Advanced Engineering Design.

This class is the capstone experience for students that have demonstrated interest in a career pathway involving engineering and/or precision machining. Students will explore the advanced manufacturing industrial setting through a combination of classroom/lab based activities and exposure to community resources to enhance their learning. Students will study managerial philosophies and how they impact each phase of the manufacturing process. They will have the opportunity to apply and assess their own theories of management. Focus will be on effective workplace skills including teamwork, integrity, and dependability.

Expectation: Complex Thinker

Precision Machining Program - Milford High School & Applied Technology Center

PRECISION MACHINING is a competency-based Career & Technical Education program offered at Milford High School/Applied Technology Center. To earn completer status in this program, students must pass **Precision Machining, Advanced Precision Machining & Advanced Precision Machining II** with a grade of "C" or better. Students are eligible to earn *Industry-Validated Certificates* or *Credentials* by passing Third-Party exams administered to all completers

Precision Machining

1.0 Credits/Spring Semester
Dual College Credit Option
Elective
Grade 10-11

Prerequisite: *One credit in math with a grade of "C" or better.*

Students enrolled in this first semester class in the Precision Machining Program will learn basic blueprint reading & measuring techniques. They will be introduced to basic hand tools and a variety of machines used in modern manufacturing. The safe and proper way to employ all tools and machines is stressed daily in this course.

Expectation: *Quality Producer*

Advanced Precision Machining

1.0 Credits/Spring Semester
Dual College Credit Option
Elective
Grade 12

Prerequisite: *Completion of Precision Machining with a grade of "C" or better.*

Students in Advanced Precision Machining I review many of the same skills learned in Precision Machining but applied to more complex and challenging operations. Material properties and machine speeds and feeds will be emphasized. Students will be introduced to Numeric Control and Computer Numeric Control (NC/CNC) programming.

Expectation: *Quality Producer*

Advanced Precision Machining II

1.0 Credits/Spring Semester
Dual College Credit Option
Elective
Grade 12

Prerequisite: *One credit in Precision Machining and one credit in Advanced Precision Machining I with a grade of "C" or better.*

This is an introductory college level course in machine tool processes and theory. This course provides more in-depth instruction and practice on all of the basic machine tools used in modern manufacturing. Set-up for CNC programming operations will be introduced. The LEAN concepts that drive the modern advanced manufacturing environment will also be stressed.

Expectation: *Quality Producer*

College Credits: *Running Start Credit may be available through Nashua Community College. Juniors and/or Seniors that complete the 3 class sequence comprising the Precision Machining Program are eligible to apply for seven college credits for MTTN 111.*