# FOOTSTEPS TO THE FUTURE

Nashua High School North

Nashua High School South

Home of the Nashua Technology Center

2022-2023



If you need assistance reading this document in either Spanish or Portuguese, please contact the Office of Student Services and ELL at 966-1010.

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### **Program of Studies**

This Program of Studies contains very specific information about courses, programs, and services offered at Nashua High School North and South. Course descriptions are presented alphabetically in Section 4.

The primary objective is to provide students and parents with the information necessary to make decisions for the next school year. The second objective is to provide the opportunity to make long-range plans and select courses in preparation for work, post-secondary education, or the armed services. This will give students the advantage of having a complete overview of their program.

This booklet should be reviewed before completing the personalized four-year education plan, a tool to assist you in selecting a sequence of courses throughout your high school career.

Para los estudiantes que no hablan inglés o si necesita más información, por favor llame Janeth Orozco Sanchez 966-1214 NHS South or 966-2922 NHS North.

### Table of Contents

SECTION 1	
Introduction and Course Selection	5
Contact Information	7
Graduation Requirements	8
Advanced Computer Course or High School Digital Portfolio Requirement	9
Math Experience	
Course Enrollments and Cancelled Courses Policy and Procedures	
How to Select Your Courses and Develop the 4-Year Plan	14
Course Levels	14
NH Scholars	15
Competency-Based Learning	
Student Progress	20
E-Block	22
SECTION 2	23
Career Pathways	23
SECTION 3	27
Departments and Course Sequencing	27
Air Force JROTC	29
Computer Science	
English-Language Arts	
ELL – English Language Learners	

Fine and Performing Arts	
Mathematics	
Physical Education and Health	40
Science	41
Social Studies	45
Special Education	48
World Languages	49
Nashua Technology Center	51
Alvirne High School Courses	59
SECTION 4	61
Course Descriptions	61
SECTION 5	
Programs and Services	
English Language Learners (ELL)	
Library Media Services	
Special Education	
Student Extracurricular Activity Eligibility – Academic Expectations	
Advanced Placement Program	
Nashua Center for Life Long Learning	
Extended Learning Opportunities	
Online Education	
SECTION 6	
School Counseling Department	



## SECTION 1

Introduction and Course Selection

Nashua High School

#### Nashua's High School Contact Information

#### District Website: <u>www.nashua.edu</u>

Who do I contact with a question about my child's schedule? The best place to start is his/her school counselor. Who do I go to if my child has questions related to curriculum or academics? We always recommend that people speak directly with the teacher about any questions they may have. Many times the teacher in the classroom can answer the question quickly.

Who do I go to if I still have a question after speaking with the teacher? Contact the head teacher for that department (see list below for names and phone numbers).

How do I contact someone by e-mail? Email addresses are normally the last name, first initial @nashua.edu . For example, John Smith would be <u>smithj@nashua.edu</u>

	Nashua High School North	Nashua High School South
General Information	www.nashua.edu/north	www.nashua.edu/south
	<u>603-966-2500</u>	<u>603-966-1100</u>
Principal	Nathan Burns	Keith Richard
	Assistants: Jean Inzerillo/ 966-2502	Assistants: Moriah Hallam/966-1102
	Denise Petz/966-2450	Kim Bertrand/966-1104
Assistant Principals	Jason Lonergan/966-2523	Nicholas Audley/966-1213
	Katir Closs/966-2573	Phil DeRosa/966-1153
	Heidi Paris/966-2923	Lesa McQuesten/966-1403
	Andrew Conrad/966-2873	Dennis Hamilton/966-1343
Directors	Jackie Hackett/966-2506 School Counseling	Lori Coutu/966-1106 School Counseling
	Lisa Gingras/966-1491 Athletics/HE/PE	Lisa Gingras/966-1491 Athletics/HE/PE
	Dorothy O'Gara/966-2633 Nashua Tech Ctr	Dorothy O'Gara/966-1113 Nashua Tech Ctr
	Laurie Rothhaus/966-1154 Adult Ed	Laurie Rothhaus/966-1154 Adult Ed
School Counselors	Karyn Wojtas/966-2478	Nancy Duffy/966-1215
	Tina Hamilton/966-2545	Jessica Brox/966-1217
	Zach Harris/966-2544	Cassie Lucas/966-1155
	Renee Crowell/966-2898	Joe Miller/966-1157
	Denise Oujaimi/966-2872	Linda Sellner/966-1345
	Claudia Castiano/966-2897	Scott Jaquith/966-1347
	Sandra Bent/966-2477	Alyssa Medico/966-1404
Department Heads		
Nashua Technology Center	Christopher Knoetig/966-2629	Kathryn Tremblay/966-1327
English Language Learners	Robert Cioppa/966-1010	Robert Cioppa/966-1010
English	Samantha McElroy/966-2512	Susan Rourke/966-1246
Health/PE	Jason Robie/966-2961	Jason Robie/966-2961
Mathematics	James Graham/966-2863	Kellie Gabriel/966-1185
Media Center	Heidi Grant/966-2602	Sharon Flesher-Duffy/966-1298
Science	Cheryl Meesig/966-2670	Matt Froment/966-1369
Social Studies	Ami Rich/966-2919	James Gaj/966-1435
Special Education	Susan Chmura/966-2800	Kerry Curtis/966-1124
World Language	Leslie Anton/966-2864	Jayne Wing/966-1434
Art	Angela Walsh/966-1131	Angela Walsh/966-1131
Music	Thomas Souza/966-3990	Thomas Souza/966-3990

#### **Graduation Requirements**

The Nashua School District offers a three-tier diploma system. The standard diploma, the Academic Diploma, requires **at least 27 credits**. The majority of students will be guided to meet the requirements of this diploma. The second tier, the Core Diploma with 20 credits, is an option available through an application process to the building principal. This Core Diploma application process may begin no sooner than the fall of the student's junior year. The Diploma with Distinction requires 32 credits, Proficient with Distinction on State Assessment, 92% attendance and a 3.0 GPA. Please see policy IKF.

The following outlines the course credit requirements for high school graduation for both diplomas. Advanced Placement courses will satisfy State requirements in specific disciplines. NOTE: The Principal or designee may waive pre-requisites.

Subject Area	Grad Requirement (Credits)	Courses and notes to fulfill requirement	
Art Education	0.5	Graphics Design 1 or 2 may meet the Art or ICT requirement. All Art, Drama, and Music courses meet the Art Education requirement.	
Information and Computer Technology	0.5	See List of Advanced Computer Courses	
English	4	English 1, 2, 3, and either English 4 or an elective. At least one course must be taken every year.	
	3		
Mathematics	(Algebra 1, Part 1 and 2 or Algebra 1(H) is required.)	Students must have a math experience every year of high school.	
Physical Science	1	Physical Science is a prerequisite for all science courses and is taken freshman year. Students may submit a Physical Science Portfolio for approval to determine advanced standing and course credit in lieu of taking Physical Science.	
Biological Science	1	Biology is required for graduation.	
Social Studies	3	World Studies, Civics, Economics, and US History are required. AP World History meets World Studies requirements. AP US Government meets Civics requirements. AP Microeconomics or AP Macroeconomics meet Economics requirements. AP US History meets US History requirements.	
Physical Education	1	Sports Education is required. Fit for Life or Personal Fitness are also required.	
Health	0.5	Health 1	
Electives	12.5 or 5.5	12.5: Standard Diploma 5.5: Core Diploma	

#### Advanced Computer Course or High School Digital Portfolio Requirement

ED 306.42C requires high school students to complete ½ credit of Information and Communication Technology (ICT) by completing an advanced computer course or demonstrating proficiency through a digital portfolio. See the table below for a list of courses that will satisfy this requirement.

Course #	Course	Credit		
5001	Accounting Fundamentals	1		
5041	Advanced Accounting Topics 1			
5047	Advanced Accounting Topics (H)	1		
3045	Advanced Computer Science Topics (E)	1		
3047	Advanced Computer Science Topics (H)	2		
6311	Advanced Photography	1		
3509	AP Computer Science A	1		
6239	AP Music Theory	1		
5221	Automotive Technology 1	2		
5231	Automotive Technology 2	2		
5237	Automotive Technology 2 (H)	2		
5261	Biotechnology and Biomedical Science 2	2		
5267	Biotechnology and Biomedical Science 2 (H)	2		
5391	Business Finance	1		
5397	Business Finance (H)	1		
5411	Global Finance	1		
5417	Global Finance (H)	1		
5271	CADD 1	2		
5277	CADD 1 (H)	2		
5027	College Accounting 1 (H)	1		
5037	College Accounting 2 (H)	1		
5921	Computer Integrated Manufacturing	1		
5927	Computer Integrated Manufacturing (H) 1			
5561	Computer Networking and Cyber Security 1     2			
5567	Computer Networking and Cyber Security 1 (H) 2			
5431	Design and Visual Communications 1 2			
5437	Design and Visual Communications 1 (H) 2			
5061	Desktop Publishing 1			

Course #	Course	Credit		
5067	Desktop Publishing (H)	1		
5501	Digital Life 0.5			
3361	Discovering Computer Science 1			
5241	Drone Technology	1		
5401	Financial Services Internship	1		
5761	Graphic Design 1	0.5		
5211	Interior Design	1		
5051	Introduction to Business	0.5		
5551	Intro to Engineering Design	1		
5537	Intro to Engineering Design (H)	1		
5501	Advanced Manufacturing 2	2		
5507	Advanced Manufacturing 2 (H)	2		
5541	Marketing Management and Social Media	2		
5547	Marketing Management and Social Media (H)	2		
6147	Music Theory (H) 1			
6301	Photography 1			
5901	Personal Finance 0.1			
5931	Principles of Engineering 1			
5937	Principles of Engineering (H)	1		
5951	Robotics Using Vex	1		
5957	Robotics Using Vex (H)	1		
5101	Small Business Management	1		
5107	Small Business Management (H)	1		
5071	Software Application	1		
3401	Video Game Programming 1			
5601	Video Production and Broadcasting 1 2			
5607	Video Production and Broadcasting 1 (H)     2			
5531	Marketing for Retail and Fashion 1			
3357	Marketing for Retail and Fashion (H) 1			
5121	Marketing for Sports and Entertainment 1			
5127	Marketing for Sports and Entertainment (H) 1			

#### Math Experience

In order to graduate, students need 3 math credits and in addition, Ed 306 requires high school students to have math experience each year of high school. In addition to mathematics classes the following courses will satisfy this requirement:

Course Number	Course Name
5001	Accounting Fundamentals
5041/ 5047	Advanced Accounting Topics
0631/0671	AFJROTC Exploring Space
4159	AP Chemistry
3509	AP Computer Science A
2569	AP Macroeconomics
2559	AP Microeconomics
4059/4109	AP Physics 1 or 2
2309	AP Psychology
5221/5231/5237	Automotive Technology 1 or 2
5251/5257/5261/5267	Biotechnology and Biomedical Science 1 or 2
5391/5397/5411/5417	Business Finance and Global Finance
6201	Ceramics
4153/4155/4157	Chemistry
5027/5037	College Accounting 1 (H) & 2 (H)
5271/5277/5281/5287	Computer Aided Drafting Design
	(CADD 1 or 2)
5921/5927	Computer Integrated Manufacturing
5291/5301/5307	Construction Technology 1 or 2
5332/5337/5341/5347	Culinary Arts 1 or 2
3361	Discovering Computer Science
2063/2065/2067	Economics
5371/5381	Electrical Technology 1 or 2
5841/5947	Engineering Design and Development
5161	Exploring Contemporary Cooking
5401	Financial Services Internship
5171	Food Technology
5761/5861	Graphic Design 1 or 2
5511/5521	Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR 1 or 2)
5051	Introduction to Business
5551/5557	Introduction to Engineering Design

#### Math Experience - Continued

Course Number	Course Name
3045/3047	Advanced Computer Science Topics (EHT)
5491/5501/5507	Advanced Manufacturing 1 & 2
5821	Marine Robotics
5531/5537	Marketing for Retail and Fashion
5121/5127	Marketing for Sports and Entertainment
5541/5547	Marketing Management and Social Media
5201	On Your Own
5901	Personal Finance
6301/6311	Photography or Advanced Photography
4053/4055/4057	Physics
5741/5841	Power Mechanics 1 or 2
5931/5947	Principles of Engineering
5951/5957	Robotics Using Vex
3401	Video Game Programming
5601/5607/5611/5617	Video Production and Broadcasting 1 or 2
5771	Woodworking 1
5781	Woodworking 2

#### **Course Enrollments and Cancelled Courses Policy and Procedures**

#### **Steps to Course Selection**

- 1. Review the graduation requirements.
- 2. Decide on the courses that you want to take next school year by reviewing the Program of Studies.
- 3. Note the length of the course (quarter, semester or full year). Quarter courses need to be paired with another quarter class.
- 4. Note the level of difficulty of the course: Advanced Placement (AP); Honors (H); Extension (E); Foundation (F)
- 5. Note the course Pre-requisites or sequences.
- 6. Go to on-line registration at: x2.nashua.edu
- 7. Participate in the group meetings with counselors during the course selection timeframe.

LENGTH OF COURSE	CREDIT VALUE
Quarter Course * (Q)	.50
Semester Course (S)	1
Full Year Course (Y)	2

#### How to Select Your Courses and Develop the 4-Year Plan

Carefully read through this Program of Studies. It is time for you to think about selecting courses for next school year. Begin to develop, with your counselor, parents, advisors and teachers, individual programs which will best serve your future plans.

- Under block schedule, there are no study halls.
- Under normal circumstances, students may drop a class within the first five days of the semester given one of the following conditions: (1) the student failed the Pre-requisite and should not be in the course; (2) the student is physically unable to participate in the class due to injury or illness.
- Under extenuating circumstances, students may drop a class with permission of the student's parent/guardian, and the approval of the student's counselor and the Principal or designee.
- Students should use the this Program of Studies as a reference guide.
- Use The Career Pathways in Section 2 to help guide you in planning your future career

#### **Course Levels**

Students have the responsibility, with the guidance of their parents, teachers and counselors, to select those courses which best meet their needs, aptitudes and abilities. The recommendations of teachers should be followed when selecting courses and levels. Leveling is a means by which the challenge of a course is determined and, according to this concept, most courses are designated by one of the following: Foundation, Extension, Honors, and Advanced Placement. Courses from the following departments are leveled and count towards the weighted GPA: English, Mathematics, Science, Social Studies (except Military History), World Languages, and Computer Science. Additionally, CTE and Music classes at the Honors level count toward weighted GPA credit. Course numbers in each of these department indicate the level at which the course is offered.

103 <u>1</u> – Non-Leveled	103 <u>3</u> – Foundation Level	103 <u>5</u> – Extension Level	103 <u>7</u> – Honors Level
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**Foundation Level**: Foundation level classes teach the fundamental standards for the subject matter and are designed to further develop and refine basic skills and concepts for students. Foundation level classes require some independent research beyond the classroom. Students will develop critical thinking, reading, writing, reasoning, listening, speaking, and study skills.

**Extension Level**: Extension level classes will challenge the student in the classroom and require independent study outside of the classroom. In many extension courses, students will be required to carry out independent research and produce a research paper or project. Students who select extension courses should demonstrate well-developed critical thinking, reading, writing, listening, speaking, reasoning and study skills.

**Honors Level**: Honors level classes are challenging courses of study which require extensive independent work outside of the classroom. Students who select Honors level classes should demonstrate highly developed critical thinking, reading, writing, listening, speaking, reasoning and study skills. In many courses, students will be required to carry out extensive independent research and produce research papers and projects.

**Advanced Placement Level**: Advanced Placement level classes give highly motivated students the opportunity to study college level material while they are still in high school. Upon successful completion of the AP examinations, students may qualify for advanced placement in college. Students must meet course pre-requisites or their equivalents as indicated in the Program of Studies. All students who participate in AP courses are expected to take the AP exam in May.

#### **NH Scholars**

New Hampshire Scholars is a community-based program that encourages students to take a more rigorous Core Course of Study in high school. It is based on a partnership between a community's local business leaders and its school district. New Hampshire Scholars is federally-funded through the New Hampshire Department of Education.

Department	Requirement	Courses
English	4 years of English	English 1
		English 2
		English 3 or AP Language & Composition
		English 4 or
		an English Elective or AP English Literature
		and Composition
Math	4 years of Math	Algebra 1 or Algebra 1 Part 2
	,	Geometry
		Algebra 2
		Plus one subsequent math course
Science	3 of these courses	Biology
		Chemistry, Physics
		Anatomy and Physiology
		Forensic Science
		Any AP Science Course
		NTC Courses:
		Intro to Engineering, Prin. of
		Engineering, Computer Integrated
		Manufacturing, Engineering Design and
		Dev.
		Health Sciences
		Biotechnology & Biomedical Sciences
Social Studies	4 Core requirements plus one	Social Studies Courses:
	elective	Core: World Studies, Economics,
		Civics, US History
		Breaking History: Media Literacy in
		the Digital Age, Psychology
		Sociology or Anthropology
		Crime and Justice, Business Law
		Law and Ethics
		Global Conflicts
		Any AP Social Studies course
		NTC Courses:
		Marketing for Sports & Entertainment,
		Marketing for Retail & Fashion,
		Marketing for Management & Social Media
		Computer Networking
		Careers in Education
		Business Finance
		Global Finance
World Language	2 Years of the same language	French
-		Spanish
		German
		Latin
		Spanish for Heritage Speakers
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#### **Competency-Based Learning**

#### **Purpose:**

The purpose of a competency-based grading system is to improve student achievement by focusing student learning on the essential skills and content necessary for each course, as opposed to a traditional system that may have included multiple factors, like behaviors and type of assignment, to generate a student's grade. Competency-based grading will provide better communication to students, parents, teachers, and administrators on what each student knows and is able to do according to the identified course competencies.

#### What is a competency?

Competency is defined as the ability of a student to demonstrate required content knowledge and skills for each course. In Nashua, there are two different types of competencies to assess student performance.

**Course-Based:** Each course in Nashua has anywhere from 2-4 course competency statements. Each of these competency statements defines what a student needs to know and be able to do to be successful in the course. These competency statements align with the standards outlined in the Common Core State Standards (English-Language Arts, Mathematics, and content-based Literacy) and other national and state standards as they apply to a specific course. These standards, along with the skills expectations of our school, establish rigorous expectations for all students: and serve as a basis for curriculum, instruction, and assessment in our school district.

Throughout the course, students will receive a score for each course competency based on the student's level of proficiency. (See grade scale below). In addition, a student will receive written feedback to help in their progress in demonstrating proficiency. At the end of the course, a student will receive an overall letter grade based on the average of the final course competency scores. This letter grade will be used to generate GPA and class rank.

#### Competency Grade Scale:

Score	Type of Score		f		
Letter Code	Assignment	~	Course	Levels of Proficiency	Descriptors
A+ A A-	~	$\checkmark$	~	Proficient with Distinction	The student exceeds course competencies. The student consistently demonstrates, communicates, applies, extends, and/or transfers understanding of the course content and skills.
B+ B B-	~	~	~	Proficient	The student meets the course competencies. The student consistently demonstrates, communicates, and applies an understanding of the course content and skills.
C+ C C-	~	~	$\checkmark$	Partially Proficient	The student meets the course competencies. The student, with or without support, demonstrates and communicates a basic understanding of the course content and skills.
IP	~	~	X	In Progress	The student is making progress toward meeting course competencies. Student needs to demonstrate and/or communicate a sufficient understanding of course content and skills.
NE	~	~	X	No Evidence	The student has not submitted evidence to demonstrate an acceptable level of competencies.
NYA		$\checkmark$		Not Yet Assessed	This competency will be assessed at a later date.
D	x	х	~		The student has scored a C- or above in all course competencies but achieved an IP or NE in a weighted Formative Assessment category.
NC	x	X	~	No Credit	The student has scored a C- or above in at least 50% of the course competencies and is eligible to initiate a post-course recovery. Student will receive course credit upon successful completion of the recovery plan.
F	X	X	~	No Credit Awarded Not eligible for Post- Course Recovery	A student has not achieved a C- or better in more than 50% of the course competency. The student is not eligible for post-course recovery and does not receive credit for this course.

**School-Wide Competency and Rubrics:**:Nashua has identified four "21<sup>st</sup> Century Learning Skills," that are based on social and civic "behavioral" expectations (problem-solving, communication, citizenship, and responsibility).These are assessed regularly by each teacher throughout a course using the common rubric and will appear on a student's report card. These grades are NOT included in the final grade calculation for courses.

	Exceeding	Meeting	Progressing	Beginning
Problem Solving	<ul> <li>I can identify, define, and restate the problem, as well as ask questions to help me solve it.</li> <li>I can create a plan to solve a problem, using one or more strategies.</li> <li>I can solve the problem effectively, and adapt my plan when necessary.</li> <li>I can reflect on the effectiveness of my solution, and the reasonableness of my answer.</li> </ul>	<ul> <li>I can identify, define, and restate the problem, as well as ask questions to help me solve it.</li> <li>I can create a plan to solve a problem, using one or more strategies.</li> <li>I can solve the problem effectively, and adapt my plan when necessary.</li> </ul>	<ul> <li>I can identify and restate the problem.</li> <li>I can create a plan to solve the problem using one strategy.</li> <li>I can solve the problem effectively some of the time.</li> </ul>	• I can identify the problem
Communication	<ul> <li>I can communicate effectively, both verbally and nonverbally, using appropriate language in a variety of situations.</li> <li>I can adapt my method and style of communication to better meet the needs of my audience.</li> <li>I can reflect on and evaluate the effectiveness of my communication, and revise it.</li> </ul>	<ul> <li>I can communicate effectively, both verbally and nonverbally, using appropriate language in a variety of situations.</li> <li>I can reflect on and evaluate the effectiveness of my communication, and revise it with additional support.</li> </ul>	<ul> <li>I can communicate effectively some of the time, both verbally and nonverbally, using appropriate language.</li> <li>I can, with prompting, reflect on and evaluate the effectiveness of my communication.</li> </ul>	<ul> <li>I can communicate verbally and nonverbally.</li> </ul>
Citizenship	<ul> <li>I can show respect for myself, others, and all property, and encourage others to do the same.</li> <li>I can follow all school and classroom rules, and be an example for others.</li> <li>I can honor the teacher's duty to teach and all students' right to learn, and encourage others to do the same.</li> </ul>	<ul> <li>I can show respect for myself, others, and all property.</li> <li>I can follow all school and classroom rules.</li> <li>I can honor the teacher's duty to teach and all students' right to learn.</li> </ul>	<ul> <li>I can show respect for myself, others, and property some of the time.</li> <li>I can follow all school and classroom rules with prompting.</li> <li>I can honor the teacher's duty to teach and all students' right to learn with prompting.</li> </ul>	<ul> <li>I can show respect for specific individuals and property.</li> <li>I can follow specific school rules.</li> </ul>
Responsibility	<ul> <li>I can come to class, be on time, and prepared to work.</li> <li>I can make provisions for when I am unable to be in class.</li> <li>I can create, implement, and revise a plan to manage my time effectively, stay on task, and meet deadlines.</li> </ul>	<ul> <li>I can come to class, be on time, and prepared to work.</li> <li>I can make provisions for when I am unable to be in class with support.</li> <li>I can create and implement a plan to manage my time, stay on task, and meet deadlines with support.</li> </ul>	<ul> <li>I can come to class, be on time, and prepared to work with prompting.</li> <li>I can make provisions for when I am unable to be in class with prompting.</li> <li>I can, with prompting, create and implement a plan to manage my time, stay on task, and meet deadlines.</li> </ul>	<ul> <li>I can come to class.</li> <li>I can create a plan to manage my time with prompting.</li> </ul>

#### **Demonstration of Understanding**

Students will demonstrate their understanding of the knowledge and skills within each course, through numerous formative and summative assessments. Both formative and summative assignments will be reported. Parents and students will be able to view these scores on the parent/student portal.

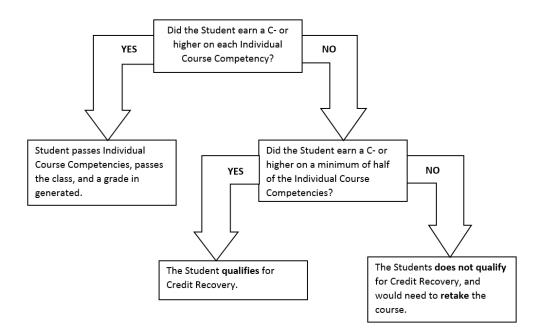
**Formative Assessments:** A formative assessment is used to gauge a student's level of understanding, as well as guiding the teacher's instruction. These are assessments that could be formal or informal, and are given during the learning process as practice. Examples include: practice problems, reading assignments and responses, quizzes, etc.

**Summative Assessments:** A summative assessment is a comprehensive measure of a student's ability to demonstrate the concepts, skills and knowledge embedded within a course competency. These are assessments that are given to evaluate student understanding that occur at the end of an instructional period (unit). Examples include: labs, inquiry tasks, test, projects, essays, etc.

**Recovery:** Any student wishing to resubmit a summative assessment will be given an opportunity to do so, providing the student completes a recovery plan that is approved by the teacher. A recovery plan may include revisiting formative assessments, meeting with the teacher for extra help, redoing missed assignments, or completing additional assignments to improve understanding.

#### Earning Credit

#### Course Credit Flow Chart



**Course Retake:** If a student does not earn a C- or higher in at least 50% of the course competencies, the student would need to retake the course to receive credit.

#### **Post-Course Recovery:**

Occurs when a student has scored a minimum of a C- in 50% or more of the identified course competencies, but not all. A student has no more than 5 weeks to re-demonstrate their level of understanding and the highest score the student can receive on the recovered competencies is a C-. Not all courses will have the Post-Course Recovery option, therefore students should focus on meeting all competencies at the end of the course and utilize the In-Course Recovery options detailed in their teacher's course expectation sheet.

#### **Student Progress**

#### Student/Parent Portal:

A student's progress can be viewed at any time by logging on to the student/parent Portal in Aspen. Grades for individual assignments should be updated on a biweekly basis. Any questions regarding a student's grade, or grading practices within a class, should be addressed with the individual teacher.

#### **Progress Reports:**

Progress reports will be issued at the half-way point of each quarter. Progress reports will communicate student performance on each course competency and their overall grade at this point.

#### **Report Cards:**

Report cards will show the overall level of proficiency for each competency in addition to the overall letter grade. A final grade will be issued solely at the end of each course. The final letter grade is based on the average of the individual competency scores for a course. This letter grade will be used to generate GPA and class rank.

#### **Grade Point Average:**

Student grade point averages (GPA) are calculated using a WEIGHTED and UN-WEIGHTED method.

The UN-WEIGHTED GPA is based on all courses taken at Nashua High School North and/or South using a 4.20 scale (see "Foundation" column).

The WEIGHTED GPA is based on all courses that carry a weight of Foundation, Extension, or Honors that are taken at Nashua High School North and/or South. Students earn quality points based on the grade and level of the class. For example. For a grade of B in an extensions class a student would earn 3.8 quality points.

OVERALL GPA is calculated using the following formula:

Course Grade Weights								
Letter Grade	Foundation	Extension	Honors	Advanced Placement				
A+	4.20	4.60	5.00	5.40				
А	4.00	4.40	4.80	5.20				
A-	3.80	4.20	4.60	5.00				
B+	3.60	4.00	4.40	4.80				
В	3.40	3.80	4.20	4.60				
B-	3.20	3.60	4.00	4.40				
C+	3.00	3.40	3.80	4.20				
с	2.80	3.20	3.60	4.00				
C-	2.60	3.00	3.40	3.80				
D+	2.40	2.80	3.20	3.60				
D	2.20	2.60	3.00	3.40				
D-	2.00	2.40	2.80	3.20				
F	0.00	0.00	0.00	0.00				

#### Total number of quality points earned divided by total credit attempted

#### **Class Rank**

To receive class rank a student must have attended Nashua High School North and/or South for at least 4 consecutive semesters on a full time basis. Grade point averages are calculated along with class rank beginning in junior year and are recalculated annually. Students receive a weighted as well as an un-weighted class rank and may report either when applying to college

#### Grade Promotion, Retention, and Acceleration

At the high school, grade level is determined by the number of credits (see Policy IKF for high school graduation requirements) earned by the individual student prior to the start of the next school year. The following represents credit acquisition for the majority of students through the standard, academic diploma.

- For the sophomore class, a student must have a minimum of 6 credits;
- For the junior class, a student must have a minimum of 13 credits;
- For the senior class, a student must have a minimum of 19 credits;

#### E-Block

The primary goal of E-Block is to engage students in their high school experience, including academic, co-curricular, and extra-curricular activities. E-Block provides time during the school day for students to seek support and/or enrichment. The 35 minute E-Block during the middle of the day is designed to provide personalized and individualized opportunities for students and teachers to address minor concerns before they become major concerns; to help students who are a bit behind catch up before they feel buried; to help students recover grades and credit; and to enable students who are ready to challenge themselves the opportunity to do so. Additionally, outreach by the school counseling department helps freshmen transition into high school and informs returning students about what they need to do to be successful as they enter a new year of high school and encounter new expectations and deadlines. Furthermore, several academic centers (Writing Center, Math Center, and Computer Center) have opened which enable students to receive extra help or participate in cooperative group work.

Benefits of E-Block:

- Subject specific extra help teachers provide extra support to students by re-explaining concepts, clarifying course expectations & competencies, providing time to make up work, quizzes or tests.
- Academic resource centers subject-specific areas will be available for student access.
- Enhanced library access library will be available for students to complete research and other library services.
- Reading Specialists time for targeted groups of students to be engaged in learning individually designed to strengthen their skills.
- Enrichment a variety of offerings for the purpose of supplementing or enhancing student performance in an academic subject.
- Workshops a variety of special offerings by teachers, students, and community members designed to engage students beyond the typical course content, such as career seminars, guest speakers, book groups, college application process sessions, college essay writing sessions, SAT prep sessions.
- Academic based clubs math team, FIRST robotics, DI teams, and the school newspaper
- All students have an adult mentor for all four years of high school.
- o Students can access their classmates during the school day to work on cooperative learning assignments.
- Activities such as assemblies, class meetings, and drills can be scheduled during E-Block to lessen interruptions of academic classes.
- School Counseling Seminars are held during E Block. This is a time for counselors to meet with their students in small groups. Topics such as Freshmen Transition, Bullying & Suicide Awareness, 4-year Plan, College Application, College Planning, Resume Writing, Career Planning, Naviance, Course Selection and other topics are discussed.

## SECTION 2

Career Pathways



Nashua High School

The Nashua School District offers 16 career pathways. Career Pathways are small groups of occupations within a career cluster. Occupations within a pathway share common skills, knowledge, and interests.

These career pathways can be used to model how decisions that are made in middle and high school may engage a student's interests and further a student's educational and career options beyond high school. The pathways may assist students in identifying a real pathway to follow to reach their more distant and abstract career goal. Reviewing career pathways may help students find the route to follow a passion to a career or trade.

Below you will find links to the pathways that are offered by the Nashua School District. Our high school students will complete both their required coursework for our high school diploma as well as the courses recommended by their chosen optional pathway. Students who select and follow a pathway, build a foundation for life after high school, whether they chose college, business or trade school, the military services or the workforce.

The Career Pathways assist in:

- Helping the student to gain an understanding of the skills required for a specific career
- Helping students to be more aware of how school subjects relate to the world of work
- Connecting the student to classes that may be of interest to them and may help them toward their goals
- Helping students figure out what they're good at
- Opening student minds to all kinds of careers opportunities (a diverse range of career opportunities)
- Student preparation for education and skill acquisition needed to gain employment
- Ultimately, making education meaningful for each student

Students are strongly encouraged to discuss their career pathway related questions and choices with their school counselor.

#### **Career Pathway Summaries**

#### Architecture and Construction

Careers in designing, planning, managing, building and maintaining the built environment

#### Arts, A/V Technology, and Communications

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services

#### Business, Management, and Administration

Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy

#### **Education and Training**

Planning, managing and providing education and training services, and related learning support services

#### Finance

Planning, services for financial and investment planning, banking, insurance, and business financial management

#### **Government and Public Administration**

Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development

#### **Hospitality and Tourism**

Hospitality and Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services

#### **Human Services**

Preparing individuals for employment in career pathways that relate to families and human needs.

#### Information Technology

Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services

#### Law, Public Safety, Corrections, & Security

Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services

#### Manufacturing

Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering

#### Marketing, Sales, and Service

Planning, managing, and performing marketing activities to reach organizational objectives

#### Science, Technology, Engineering, and Mathematics (STEM)

Planning, managing, and providing scientific research and professional and technical services (i.e., physical science, social science, engineering) including laboratory and testing services, and research and development services

#### Transportation, Distribution, and Logistics

Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance



## SECTION 3

Departments and Course Sequencing

Nashua High School

#### Air Force JROTC

The Air Force Junior Reserve Officer Training Corps (AFJROTC) program provides citizenship, aerospace science, leadership education, and wellness/fitness training to students in grades 9-12. There is absolutely no obligation to join or serve in any of the military services. Elective credit toward graduation is earned just like any other course offered in the Nashua School District. Students completing an AFJROTC course with a grade of B or higher are eligible to earn two elective college credits per course from the University of Colorado at Colorado Springs (UCCS). These credits may be transferred to a college or university that the student attends after graduation from NHSS/NHSN. Students completing 3 semesters of JROTC will receive a certificate of completion. If they then decide to enlist in any branch of the military, they are eligible to go in at one grade/rank higher than others entering without this certificate. Additionally, a completion certificate is equal to one year of participation in a college ROTC program.

Students signing up for this course do so with the understanding they are participating in an Air Force JROTC program and must adhere to the program standards without exception. This includes, but is not limited to, wearing a uniform one day per week and maintaining all grooming standards for men and women (i.e., haircuts, no face piercings, no earrings for men, etc.) and adhering to behavior standards. Failure to maintain standards will result in removal from the course/program and/or prevent students from taking future JROTC courses. There will be a number of optional community service projects that students can participate in throughout the year.

Description	Credit	Level	Term Q-S-Y	Pre-Requisite
AFJROTC1A: Aviation History	1	Non-leveled	S	None
AFJROTC1B: Aviation History	1	Non- leveled	S	None
AFJROTC2A: Science of Flight	1	Non-leveled	S	None
AFJROTC2B: Science of Flight	1	Non-leveled	S	None
AFJROTC3A: Cultural Studies	1	Non-leveled	S	None
AFJROTC3B: Global Awareness	1	Non-leveled	S	None
AFJROTC4A: Exploring Space	1	Non-leveled	S	None
AFJROTC4B: Exploring Space	1	Non-leveled	S	None
AFJROTC5: Management of the Cadet Corps	1	Non-leveled	S	SASI recommendation only
AFJROTC6: Survival	1	Non- leveled	S	None

Ed 306-42C requires high school students to complete .5 credit of Information and Communication Technology (ICT) by completing an advanced computer course or demonstrating proficiency through a high school portfolio.

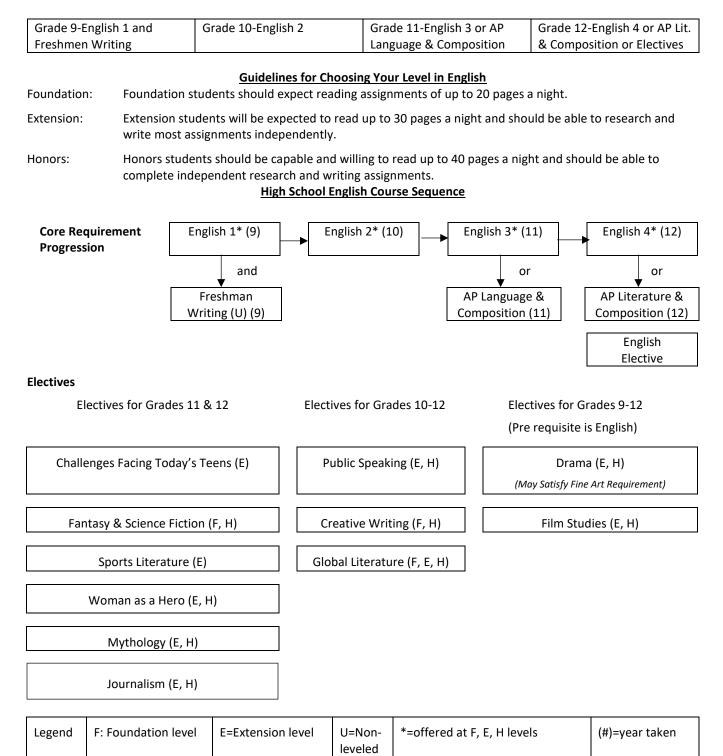
Computer science is the study of what computers *can* do, and programming is *how* we make computers to do things. It plays a central role in our technologically driven culture. Many believe developing logical reasoning skills (essential in every computer science class) before college is a key to success. The classes offered here range from beginner coding to more advanced structures through AP Computer Science. You'll be introduced to computer programming and gain a broad understanding of solving problems using the computational practices of analysis, design, implementation, and testing.

Course #	Description	Credit	Level	Term Q-S-Y	Pre-Requisite	Notes
3045	Advanced Computer Science Topics (E)	1	Extensions	S	Discovering Computer Science or Video Game Programming	Meets ICT requirement and Math Experience requirement
3047	Advanced Computer Science Topics (H)		Honors	S	Discovering Computer Science or Video Game Programming	Meets ICT requirement and Math Experience requirement
3361	Discovering Computer Science	1	Non-leveled	S	Algebra 1, Part 2 or concurrently taking Algebra 1, Part 2	Meets ICT requirement and Math Experience requirement
3401	Video Game Programming	1	Non-leveled	S	Geometry	Meets ICT requirement and Math Experience requirement
3509	AP Computer Science A	2	АР	Y	Pre-Calculus or currently taking Pre- Calculus	Meets ICT requirement and Math Experience requirement

#### English-Language Arts

#### **Graduation Requirements & Sequence of English Courses**

The minimum graduation requirement in English is 4 credits. It is required that all students take at least one credit of English each year. Students may take English electives in addition to the required sequence of classes.



#### English Language Arts

Course <u>#</u>	Description	Credit	Level	Term Q-S-Y	Pre- Requisite	Notes
1011	Freshman Writing	1	Unleveled	S		Required Grade 9 Course
1013	English 1	1	Foundation	S		Required Grade 9 Course
1015	English 1 (E)	1	Extension	S		
1017	English 1 (H)	1	Honors	S		
1023	English 2	1	Foundation	S	English 1	Required Grade 10 Course
1025	English 2 (E)	1	Extension	S	English 1	
1027	English 2 (H)	1	Honors	S	English 1	
1033	English 3	1	Foundation	S	English 2	Required Grade 11 course or AP English Lang. & Comp.
1035	English 3 (E)	1	Extension	S	English 2	p-
1037	English 3 (H)	1	Honors	S	English 2	
1039	AP English Language & Composition	2	AP	Y	English 2	
1043	English 4	1	Foundation	S	English 3	
1045	English 4 (E)	1	Extension	S	English 3	
1047	English 4 (H)	1	Honors	S	English 3	
1049	AP English Literature & Composition	2	AP	Y	English 3 or AP English Language	
1055	Challenges Facing Today's Teens (E)	1	Extension	S	English 2	
1065	Language Skills 1 (E)	1	Extension	S		
1075	Language Skills 2 (E)	1	Extension	S		
1103	Fantasy & Science Fiction	1	Foundation	S	English 3	
1107	Fantasy & Science Fiction (H)	1	Honors	S	English 3	
1155	Mythology (E)	1	Extension	S	English 2	
1157	Mythology (H)	1	Honors	S	English 2	
1355	Journalism (E)	1	Extension	S	English 2	
1357	Journalism (H)	1	Honors	S	English 2	
1455	Public Speaking (E)	1	Extension	S	English 2	
1457	Public Speaking (H)	1	Honors	S	English 2	
1463	Creative Writing	1	Foundation	S	English 1	
1467	Creative Writing (H)	1	Honors	S	English 1	
1515	Drama (E)	1	Extension	S	English 1	May fulfill an English or Art requirement but NOT both
1517	Drama (H)	1	Honors	S	English 1	May fulfill an English or Art requirement but NOT both
1555	Sports Literature (E)	1	Extension	S	English 3	Does not meet NCAA requirements
1545	Woman as a Hero (E)	1	Extension	S	English 2	
1557	Woman as a Hero (H)	1	Honors	S	English 2	
1615	Film Studies (E)	1	Extension	S	English 1	
1617	Film Studies (H)	1	Honors	S	English 1	
1623	Global Literature (F)	1	Foundation	S	English 2	
1625	Global Literature (E)	1	Extension	S	English 2	
1627	Global Literature (H)	1	Honors	S	English 2	
9061	Reading for Success	1	Unleveled	S		Instructor Approval Required

#### ELL – English Language Learners

The English Language Learners (ELL) Program is an instructional program for students who are speakers of another language. Participation in the program is determined by the ELL staff, based on the student's English language proficiency. The goal of the program is to develop English communication and cognitive academic language skills so that the students can achieve success and assimilate into the school community.

El programa de ELL (Ingles como Segundo idioma) es un programa de instruccion para estudiantes que hablan otro idioma. Los maestros determinan si un estudiante califica para estar en el programa. El objetivo del programa es el desarrollo de la communicacion y las destrezas academicas y cognitivas del lenguaje para que los estudiantes puedan lograr exito e integracion en la communidad escolar.

O programa de ingles como Segunda lingua (ELL) e um programa de instrucao para alunos que falam outra lingua. A partipacao no programa e determinada pelo pessoal do ELL que e baseado no conhecimento e desenvoltura da lingua inglesa do aluno. A meta do programa e desenvolver a comunicacao e abilidade does alunos com a lingua inglesa de modo que eles pos – sam alcancar exito dentro da communidade escolar.

				Term	Pre-	
Course <u>#</u>	Description	Credit	Level	Q-S-Y	Requisite	Notes
9011, 9021 9031, 9041	ELL Level 1	4	Foundation	S		This class schedules for two blocks each semester
9101, 9121	ELL Level 2	2	Foundation	S		This class schedules for one block each semester.
9055, 9057	ELL Level 3	2	Extensions, Honors	S		This class schedules for one block each semester.
9105, 9107	ELL Level 4	2	Extensions, Honors	S		This class schedules for one block each semester. **See note below
9255, 9257	ELL Level 5	2	Extensions, Honors	S		This class schedules for one block each semester. **See note below
9365, 9367	ELL Level 6	2	Extensions, Honors	S		This class schedules for one block each semester. **See note below
9003	ELL Literacy	2	Foundation	Y		

\*\*It is recommended that all English Language learners in levels 4, 5 or 6 take a mainstream English course in addition to their ELL classes. Freshman in ELL levels 4, 5 or 6 will be placed into Freshman Writing and English 1. Freshman in ELL level 3 with 5+ years in the Nashua School District should also take Freshman Writing and English 1. ELL students should only be placed into English 4 after consultation with their ELL case manager.

#### Fine and Performing Arts

Students must take a .5 credit of Fine and Performing Arts to graduate. The following additional courses meet the requirement:

- Drama (This course may fulfill an Art or English graduation requirement but not both.)
- Graphic Design 1 or Visual and Design Communication 1 (Each course may fulfill an Art or Computer requirement but not both.)

				Term	Pre-	
Course #	Description	Credit	Level	Q-S-Y	Requisite	Notes
6011	Drawing	0.5	Non-	Q		
			leveled			
6021	Advanced Drawing	1	Non-	S	Intro to	
			leveled		High School	
					Art or Art	
					Experience	
60.47				-	or Drawing	
6047	Studio Art (H)	1	Honors	S	Advanced	Course can be repeated for credit.
6071	Crofts	1	Non	S	Drawing	
6071	Crafts	1	Non- leveled	5		
6081	Jewelry Making	0.5	Non-	Q		
0001	Jewelly Making	0.5	leveled	ų		
6091	Art Experience	0.5	Non-	Q		
0091	Art Experience	0.5	leveled	Q		
6107	Art History (H)	1	Honors	S		
6109	AP Art History	2	AP			
	-			Y		
6111	Piano	1	Non-	S		Course can be repeated for credit.
64.24	D: (0)	0.5	leveled			
6121	Piano (Q)	0.5	Non-	Q		Course can be repeated for credit.
6131	Cuiter Class (O)	0.5	leveled Non-	0		
0131	Guitar Class (Q)	0.5	leveled	Q		Course can be repeated for credit.
6147	Music Theory (H)	1	Honors	S		This course may fulfill a music credit
0147		1	TIONOIS	5		-
						or an ICT requirement but not both.
6151	Guitar Class	1	Non-	S		Course can be repeated for credit.
64.64			leveled	-		
6161	The Roots of Rock	1	Non-	S		
C171	and Roll	1	leveled	*		
6171	Band	1	Non- leveled			
6181	Chorale	1	Non-	*		
10101			leveled			
6197	Concert Choir (H)	1	Honors	*		Audition required.
6201	Ceramics	1	Non-	S		Meets the a Math Experience
5201			leveled			requirement
6217	Select Band (H0	1	Honors	*		Audition required

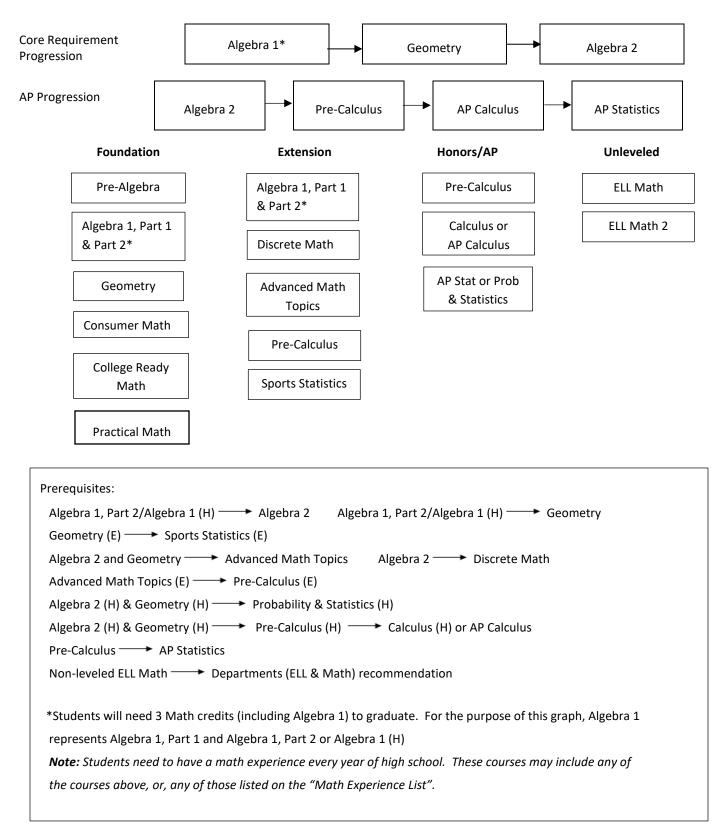
Course #	Description	Credit	Level	Term Q-S-Y	Pre- Requisite	Notes
6239	AP Music Theory	1	АР	S		Students are expected to take the AP exam in May. This course may fulfill a music credit or an ICT requirement but not both.
6241	Jazz Improv. & Literature	1	Non- leveled	S	1 year playing experience	Band Director recommendation.
6259	AP Studio Art - FY	2	АР	Y	Advanced Drawing	Adv. Drawing and Art History strongly recommended. Meets ICT requirement. Students are expected to take the AP exam in May.
6301	Photography	1	Non- leveled	S		Meets ICT and Math Experience requirement. Students must provide their own 35mm SLR camera with manual shutter speeds and aperture capabilities and a digital camera with point and shoot options to change modes and also required is a flash drive with 4GB capacity. It is recommended that students provide their own equipment. The high schools will provide assistance on a case-by-case basis for students without the required personal equipment. College credit may be available.
6311	Advanced Photography	1	Non- leveled	S	Photography or Teacher rec.	Meets ICT and Math Experience requirement. Students must provide their own 35mm SLR camera with manual shutter speeds and aperture capabilities and a digital camera with point and shoot options to change modes and also required is a flash drive with 4GB capacity. It is recommended that students provide their own equipment. The high schools will provide assistance on a case-by-case basis for students without the required personal equipment. College credit may be available.
6401	Adaptive Arts	1	Non- leveled	S		credit may be available.

#### Mathematics

The Mathematics Program offers a substantive sequence of courses to prepare students for college or career in the 21<sup>st</sup> Century. Three credits in Mathematics are required for graduation; one MUST be Algebra 1 Part 2 or Algebra 1 (H). Students must have a math experience every year of high school. We strongly encourage enrollment in a Mathematics course in each of a student's four years in high school. Four or more credits are generally required for college acceptance at selective schools. The goal of the Math Department is to develop in students the value and enjoyment of Mathematics. Student must be able to reason and communicate mathematically, have confidence in their mathematical skills, use Math to make informed decisions in their daily life and see themselves as mathematical problem solvers. In solving problems, students must be able to question the reasonableness of a solution, be flexible, persevere and take risks.

As a general guideline students who are proficient (B or better) in their present course and have their teacher's recommendation will be prepared for the next course at that level. The standard college preparatory mathematics program consists of four courses: Algebra 1, Geometry, Algebra 2 and any combination of the Pre-Calculus, Discrete Math and Probability and Statistics semester courses. Students will thoroughly study a core of skills unique to each course and will also discover the connections between and among the courses.

#### **High School Math Course Sequence**



#### Mathematics

Course <u>#</u>	Description	Credit	Level	Term Q-S-Y	Pre-Requisite	Notes
3003	Math Skills Review	0.5	Foundation	Q		
3013	Pre-Algebra	1	Foundation	S		
3083	Algebra 1 Part 1	1	Foundation	S		Students who completed Algebra I in 8 <sup>th</sup> grade with B or better may not take this course. Upon successful completion of
3093	Algebra 1 Part 2	1	Foundation	S		Algebra 1 Part 1 and Part 2, 1 credit will be awarded as elective credit for Part 1, and Part 2 meets the Algebra requirement.
3085	Algebra 1 Part 1 (E)	1	Extension	S		Students who completed Algebra 1 in 8 <sup>th</sup> grade with B or better may not take this course. Upon successful completion of
3095	Algebra 1 Part 2 (E)	1	Extension	S		Algebra 1 Part 1 and Part 2, 1 credit will be awarded as elective credit for Part 1, and Part 2 meets the Algebra requirement.
3027	Algebra 1 (H)	1	Honors	S		Students who completed Algebra 1 in 8 <sup>th</sup> grade with B or better may not take this course
3033	Geometry	1	Foundation	S	Algebra 1 or Algebra 1 Part 2	
3035	Geometry (E)	1	Extension	S	Algebra 1 or Algebra 1 Part 2	
3037	Geometry (H)	1	Honors	S	Algebra 1 or Algebra 1 Part 2	
3043	Consumer Math	1	Foundation	S	Algebra 1 or Algebra 1 Part 2	
3055	Algebra 2 (E)	1	Extension	S	Algebra 1 or Algebra 1 Part 2	Use of graphing calculator required. Geometry recommended
3057	Algebra 2 (H)	1	Honors	S	Algebra 1 or Algebra 1 Part 2	Use of graphing calculator required. Geometry recommended
3063	College Ready Math	1	Foundation	S	Senior standing, Algebra 1, or Algebra 1 Part 2, Geometry and/or permission of Math Dept.	

Course <u>#</u>	Description	Credit	Level	Term Q-S-Y	Pre-Requisite	Notes
3023	Practical Math	1	Foundations	S	Algebra 1, Part 2 or	
					Geometry	
3105	Pre-Calculus (E)	1	Extension	S	Algebra 2 (H) or	
					Advanced Math	
					Topics and	
					Geometry (H/E)	
3107	Pre-Calculus (H)	1	Honors	S	Geometry (H/E) &	
					Algebra 2 (H)	
3123	Algebra 1 (Continued)	1	Foundation	S	Algebra 1 or	Teacher recommendation
					Algebra 1 Part 2	
3127	Calculus (H)	1	Honors	S	Pre-Calculus (H)	
3129	AP Calculus AB	2	AP	Y	Pre-Calculus (H	
3139	AP Calculus BC	1	AP	S	AP Calculus AB	Semester course only
3159	AP Calculus BC (FY)	2	AP	Y	Pre-Calculus (H)	
					and Teacher	
					Recommendation	
3153	Algebra 2 (Continued)	1	Foundation	S	Algebra 2	
3155	Advanced Math Topics	1	Extension	S	Algebra 2 &	
	(E)				Geometry	
3205	Discrete Math (E)	1	Extension	S	Algebra 2	
3255	Sports Statistics (E)	1	Extension	S	Algebra 2	
3257	Probability & Statistics	1	Honors	S	Geometry (H) &	Students may take this
	(H)				Algebra 2 (H)	course OR AP Statistics
						but NOT both
3259	AP Statistics	2	AP	Y	Pre-Calculus (H)	Can be concurrent with
						Pre-Calculus in the Fall
						semester. This course
						cannot be taken if you
						completed the Probability
						& Statistics course
3301	ELL Math	1	Non-leveled	S		Open to students in ELL
						Level 1-2
3302	ELL Math 2	1	Non-leveled	S	ELL Math 1	Open to students in ELL
						Level 1-2

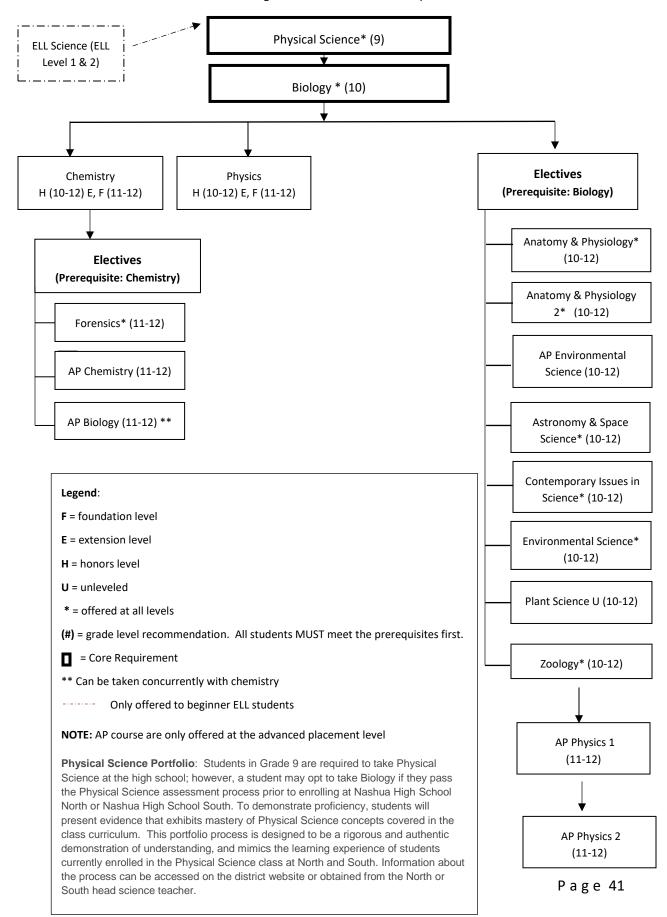
#### **Physical Education and Health**

Through Physical Education classes, students will demonstrate fundamental movement skills in a variety of contexts; understand the lifelong benefits of a health enhancing fitness program; participate in self-selected physical activity; cooperate and encourage peers; accept individual differences and demonstrate inclusive behaviors; and engage in physical activity for enjoyment and self-expression. During Health classes students will demonstrate understanding of making healthy decisions in all aspects of their lives. Topics discussed will be healthy relationships, healthy eating, human sexuality, substance use and abuse, and mental health.

Students will meet the Physical Education and Health graduation requirements by taking Sport Education as a freshman and Health 1 and Fit for Life as a sophomore.

				Term		
Course #	Description	Credit	Level	Q-S-Y	Pre-Requisite	Notes
7011	Sport Education	0.5	Non-leveled	Q		Required course for graduation
7021	Fit for Life	0.5	Non-leveled	Q	Sport Education	Fit for Life or Personal Fitness is required for graduation
7031	Health 1	0.5	Non-leveled	Q		Required course for graduation
7041	Personal Fitness	0.5	Non-leveled	Q	Sport Education	Fit for Life or Personal Fitness is required for graduation
7051	Lifetime Activities 1	0.5	Non-leveled	Q	Sport Education & Fit for Life	
7061	Lifetime Activities 2	1	Non-leveled	Q	Sport Education, Fit for Life, & Lifetime Activities 1	
7081	Health 2	0.5	Non-leveled	Q	Health 1	

Science High School Science Course Sequence



#### Science

Students must earn 1 credit in Physical Science and an additional 1 credit in Biological Science.

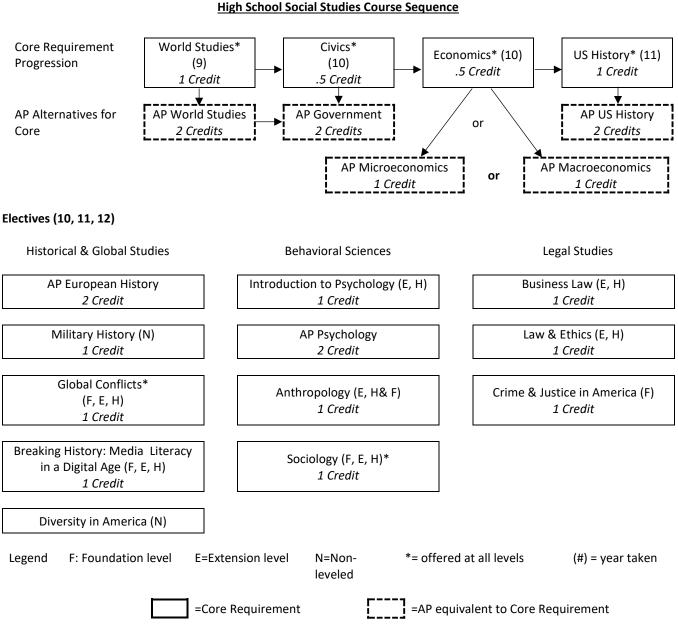
				Term		
Course #	Description	Credit	Level	Q-S-Y	Pre-Requisite	Notes
4013	Physical Science	1	Foundation	S		Students who successfully fulfill this requirement by completing the physical science portfolio option will earn 1 credit for this course.
4015	Physical Science (E)	1	Extension	S		Students who successfully fulfill this requirement by completing the physical science portfolio option will earn 1 credit for this course.
4017	Physical Science (H)	1	Honors	S		Students who successfully fulfill this requirement by completing the physical science portfolio option will earn 1 credit for this course.
4003	ELL Physical Science	1	Foundation	S		Requires ELL instructor approval
4005	ELL Physical Science (E)	1	Extension	S		Requires ELL instructor approval
4023	Biology	1	Foundation	S	Physical Science (PS) or PS portfolio credit	Students who successfully fulfill this requirement by completing the biology portfolio option will earn 1 credit for this course
4025	Biology (E)	1	Extension	S	Physical Science (PS) or PS portfolio credit	Students who successfully fulfill this requirement by completing the biology portfolio option will earn 1 credit for this course
4027	Biology (H)	1	Honors	S	Physical Science (PS) or PS portfolio credit	Students who successfully fulfill this requirement by completing the biology portfolio option will earn 1 credit for this course

Course #	Description	Credit	Level	Term Q-S-Y	Pre-Requisite	Notes
4029	AP Biology	2	AP	Y	Biology, Chemistry, Anatomy and Physiology and Zoology are recommended	Students are expected to take the AP exam in May. Chemistry may be taken concurrently first semester
4053	Physics	1	Foundation	S	Biology and Geometry	Or concurrent with Geometry or Algebra 2. Meets Math Experience requirement.
4055	Physics (E)	1	Extension	S	Biology and Geometry	Meets Math Experience requirement.
4057	Physics (H)	1	Honors	S	Biology, Geometry and Algebra 2	Meets Math Experience requirement.
4059	AP Physics I	2	АР	Y	Biology, Geometry and Algebra 2	Students are expected to take the AP exam in May. Meets Math Experience requirement.
4109	AP Physics 2	1	АР	S	Advance Placement Physics I	Students are expected to take the AP exam in May. Meets Math Experience requirement.
4153	Chemistry	1	Foundation	S	Biology and Algebra 1, Part 2	Meets Math Experience requirement.
4155	Chemistry (E)	1	Extension	S	Biology and Geometry or Algebra 2	Algebra 2 suggested. Meets Math Experience requirement.
4157	Chemistry (H)	1	Honors	S	Biology and Geometry or Algebra 2	Algebra 2 suggested. Meets Math Experience requirement.
4159	AP Chemistry	2	AP	Y	Chemistry, Geometry and Algebra 2	Meets Math Experience requirement. Students are expected to take the AP exam in May
4253	Astronomy & Space Science	1	Foundation	S	Physical Science and Biology	
4255	Astronomy & Space Science (E)	1	Extension	S	Physical Science and Biology	
4257	Astronomy & Space Science (H)	1	Honors	S	Physical Science and Biology	
4357	Anatomy & Physiology 1 (H)	1	Honors	S	Biology (E) or (H)	

Course #	Description	Credit	Level	Term Q-S-Y	Pre-Requisite	Notes
4423	Anatomy & Physiology	1	Foundation	S	Biology	
4425	Anatomy & Physiology (E)	1	Extension	S	Biology	
4413	Anatomy & Physiology 2	1	Foundation	S	Anatomy & Physiology I	
4415	Anatomy & Physiology 2 (E)	1	Extension	S	Anatomy & Physiology I	
4407	Anatomy & Physiology 2 (H)	1	Honors	S	Anatomy & Physiology I (H)	
4503	Zoology	1	Foundation	S	Biology	
4505	Zoology (E)	1	Extension	S	Biology	
4507	Zoology (H)	1	Honors	S	Biology	
4523	Environmental Science	1	Foundation	S	Biology	
4525	Environmental Science (E)	1	Extension	S	Biology	
4527	Environmental Science (H)	1	Honors	S	Biology	
4529	AP Environmental Science	2	АР	Y	Biology	Chemistry is recommended. Students are expected to take the AP exam in May
4551	Plant Science	1	Non-leveled	S	Biology	
4603	Forensic Science	1	Foundation	S	Chemistry	
4605	Forensic Science (E)	1	Extension	S	Chemistry	
4607	Forensic Science (H)	1	Honors	S	Chemistry	
4703	Contemporary Issues in Science	1	Foundation	S	Physical Science and Biology	
4705	Contemporary Issues in Science (E)	1	Extension	S	Physical Science and Biology	
4707	Contemporary Issues in Science (H)	1	Honors	S	Physical Science and Biology	
4801	ELL Science	1	Non-leveled	S		Intended for students in ELL Level 1 or 2

#### **Social Studies**

Graduation Requirement: the minimum graduation requirement in Social Studies is three credits including one credit in World Studies .5 credit of Civics, .5 credit of Economics and one credit in US History.



\* Students taking Civics and Economics are not precluded from taking AP Government, AP Microeconomics or AP Macroeconomics (fulfill Economics requirement). AP Government fulfills Civics requirement; AP Macroeconomics fulfills

Economics requirement

#### **Social Studies**

Course <u>#</u>	Description	Credit	Level	Term Q-S-Y	Pre- Requisite	Notes
2011	ELL World Studies	1	Unleveled	S		ELL instructor approval required
						Fulfills World Studies and
						Geography state requirement
2013	World Studies	1	Foundation	S		Fulfills World Studies and
						Geography state requirement
2015	World Studies (E)	1	Extension	S		Fulfills World Studies and
						Geography state requirement
2017	World Studies (H)	1	Honors	S		Fulfills World Studies and
						Geography state requirement
2019	AP World History	2	AP	Y		Fulfills World Studies state
						requirement
2063	Economics	0.5	Foundation	Q		Students must take this or AP
						Macro/Micro Economics to fulfill
						state requirement. Meets Math
						Experience requirement.
2065	Economics (E)	0.5	Extension	Q		Students must take this or AP
						Macro/Micro Economics to fulfill
						state requirement. Meets Math
						Experience requirement.
2067	Economics (H)	0.5	Honors	Q		Students must take this or AP
						Macro/Micro Economics to fulfill
						state requirement. Meets Math
						Experience requirement.
2073	Civics	0.5	Foundation	Q		Students must take this or AP
						Government to fulfill state
						requirement
2075	Civics (E)	0.5	Extension	Q		Students must take this or AP
						Government to fulfill state
						requirement
2077	Civics (H)	0.5	Honors	Q		Students must take this or AP
						Government to fulfill state
						requirement
2033	US History	1	Foundation	S		Fulfills US and NH History state
						requirement
2035	US History (E)	1	Extension	S		Fulfills US and NH state
						requirement
2037	US History (H)	1	Honors	S		Fulfills US and NH History state
						requirement
2039	AP US History	2	AP	Y		Fulfills US and NH History state
						requirement
2053	Anthropology (F)	1	Foundation	S		
2055	Anthropology (E)	1	Extension	S		
2057	Anthropology (H)	1	Honors	S		
2105	Business Law (E)	1	Extension	S		
2107	Business Law (H)	1	Honors	S		
2153	Crime & Justice in	1	Foundation	S		
	America			, j		

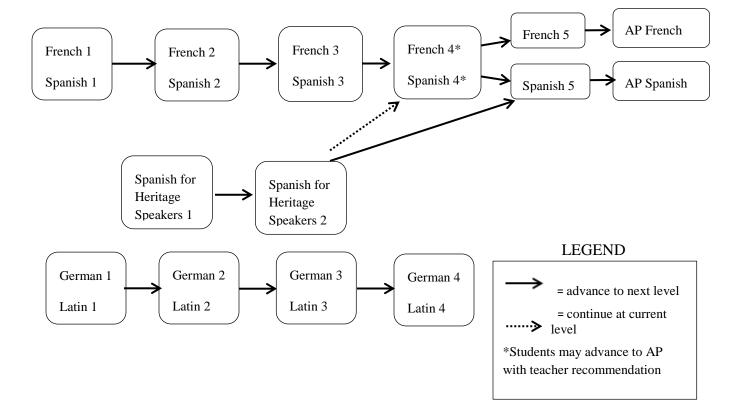
				Term	Pre-	
Course #	Description	Credit	Level	Q-S-Y	Requisite	Notes
2205	Law & Ethics (E)	1	Extension	S		20 hours of community service required
2207	Law & Ethics (H)	1	Honors	S		20 hours of community service required
2305	Introduction to Psychology (E)	1	Extension	S		
2307	Introduction to Psychology (H)	1	Honors	S		Recommended as a pre- requisite to AP Psychology
2309	AP Psychology	2	AP	Y		Meets Math Experience requirement. Introduction to Psychology is recommended as a pre-requisite
2351	Military History	1	Non-leveled	S		
2353	Sociology (F)	1	Foundation	S		
2361	Diversity in America	1	Unleveled	S		
2405	Sociology (E)	1	Extension	S		
2407	Sociology (H)	1	Honors	S		
2513	Global Conflicts (F)	1	Foundation	S		
2515	Global Conflicts (E)	1	Extension	S		
2517	Global Conflicts (H)	1	Honors	S		
2559	AP Microeconomics	1	AP	S		Meets Math Experience requirement.
2569	AP Macroeconomics	1	AP	S		Meets Math Experience requirement.
2609	AP European History	2	AP	Y		
2659	AP US Government & Politics	2	AP	Y		
2703	Breaking History: Media Literacy in the Digital Age	1	Foundation	S		
2705	Breaking History: Media Literacy in the Digital Age	1	Extension	S		
2707	Breaking History: Media Literacy in the Digital Age	1	Honors	S		

				Term	Pre- Requisit	
Course #	Description	Credit	Level	Q-S-Y	е	Notes
9183	General English 1	1	Foundation	S		Teacher recommendation
9213	General English 2	1	Foundation	S		Teacher recommendation
9203	General English 3	1	Foundation	S		Teacher recommendation
9223	General English 4	1	Foundation	S		Teacher recommendation
9211	Metacognitive Skills Development	1	Foundation	S		Teacher recommendation
9051	Reading	2	Foundation	Y		Teacher recommendation
9701	Literacy Center 1	2	Foundation	Y		Teacher recommendation
9751	Literacy Center 2	2	Foundation	Y		Teacher recommendation
9353	General Math	1	Foundation	S		Teacher recommendation
9343	General Pre-Algebra	1	Foundation	S		Teacher recommendation
9373	General Algebra I Part 1	1	Foundation	S		Teacher recommendation
9383	General Algebra I Part 2	1	Foundation	S		Teacher recommendation
9413	General Science-Physical	1	Foundation	S		Teacher recommendation
9423	General Science-Biological	1	Foundation	S		Teacher recommendation
9433	General Geometry	1	Foundation	S		Teacher recommendation
9463	General World Studies	1	Foundation	S		Teacher recommendation
9483	General Civics	0.5	Foundation	Q		Teacher recommendation
9473	General Economics	0.5	Foundation	Q		Teacher recommendation
9483	General US History	1	Foundation	S		Teacher recommendation
9231	Adaptive Music	0.5	Foundation	Q		Teacher recommendation
9241	Adaptive Physical Education	0.5	Foundation	Q		Teacher recommendation
9303	General Health	1	Foundation	S		Teacher recommendation
9501	Habits for Living	1	Foundation	S		Teacher recommendation
9801	Physical Conditioning & Communication Skill	1	Foundation	S		Teacher recommendation
9851	Prep Foods	1	Foundation	S		Teacher recommendation
9901	Work Skills	1	Foundation	S		Teacher recommendation
9711	ND English 1	1	Foundation	S		Teacher recommendation
9721	ND English 2	1	Foundation	S		Teacher recommendation
9731	ND English 3	1	Foundation	S		Teacher recommendation
9741	ND English 4	1	Foundation	S		Teacher recommendation
9811	ND Pre-Algebra	1	Foundation	S		Teacher recommendation
9921	ND Algebra I Part 1	1	Foundation	S		Teacher recommendation
9971	ND Algebra I Part 2	1	Foundation	S		Teacher recommendation
9831	ND Consumer Math	1	Foundation	S		Teacher recommendation
9941	ND Physical Science	1	Foundation	S		Teacher recommendation
9911	ND World Studies	1	Foundation	S		Teacher recommendation
9861	ND Civics	0.5	Foundation	Q		Teacher recommendation
9871	ND Economics	0.5	Foundation	Q		Teacher recommendation
9931	ND US History	1	Foundation	S		Teacher recommendation

#### World Languages

Studying a world language and its culture is a real asset. Knowing a second language enhances career marketability, and often facilitates better understanding and use of English. Students can choose to study French, German, Latin and/or Spanish at the high school level. As students complete the units of study in each of the world language courses, they will demonstrate their level of proficiency via performance assessments to ensure that the desired goals are being met. The performance assessments will indicate the student's long term command of listening, speaking, reading and writing skills.

The study of a single language through at least the third year is generally necessary for college/university admissions. We also highly recommend that students who already speak another language challenge themselves by taking courses in a language other than their own. Students who are heritage Spanish speakers or who live in a home where Spanish is the primary language must be tested before being placed in a Spanish class to ensure proper placement. The Spanish classes, particularly Spanish 1 and Spanish 2, are designed for non-heritage speakers and are not appropriate for those who already know Spanish. These students will be placed in Spanish 3, 4, 5 or Heritage Speakers based upon the results of the placement assessment.



#### World Language Course Sequence

Course #	Course Name	Term	Credit	Level	Pre-requisite	Notes
8117	French 1 (H)	S	1	Honors		
8127	German 1 (H)	S	1	Honors		
8137	Latin 1 (H)	S	1	Honors		
8147	Spanish 1 (H)	S	1	Honors		
8217	French 2 (H)	S	1	Honors	French 1	Teacher recommendation strongly advised
8227	German 2 (H)	S	1	Honors	German 1	Teacher recommendation strongly advised
8237	Latin 2 (H)	S	1	Honors	Latin 1	Teacher recommendation strongly advised
8247	Spanish 2 (H)	S	1	Honors	Spanish 1	Teacher recommendation strongly advised
8317	French 3 (H)	S	1	Honors	French 2	Teacher recommendation strongly advised
8327	German 3 (H)	S	1	Honors	German 2	Teacher recommendation strongly advised
8337	Latin 3 (H)	S	1	Honors	Latin 2	Teacher recommendation strongly advised
8347	Spanish 3 (H)	S	1	Honors	Spanish 2	Teacher recommendation strongly advised
8417	French 4 (H)	S	1	Honors	French 3	Teacher recommendation strongly advised
8427	German 4 (H)	S	1	Honors	German 3	Teacher recommendation strongly advised
8437	Latin 4 (H)	s	1	Honors	Latin 3	Teacher recommendation strongly advised
8447	Spanish 4 (H)	s	1	Honors	Spanish 3	Teacher recommendation strongly advised
8517	French 5 (H)	s	1	Honors	French 4	Teacher recommendation strongly advised
8547	Spanish 5 (H)	S	1	Honors	Spanish 4	Teacher recommendation strongly advised
8619	AP French	S	1	АР	French 4 or 5	Teacher recommendation strongly advised
8649	AP Spanish	S	1	АР	Spanish 4 or 5	Teacher recommendation strongly advised
8747	Spanish for Heritage Speakers 1 (H)	S	1	Honors		Placement Exam
8847	Spanish for Heritage Speakers 2 (H)	S	1	Honors	Spanish for Heritage Speakers 1	Spanish for Heritage Speakers 1 and Teacher recommendation

# Nashua Technology Center Career Academy Courses

The Nashua Technology Center offers Career and Technical Education Programs, which are available to students at BOTH Nashua High School North and Nashua High School South. Students may be required to travel to participate in Career and Technical Education programs. These courses are designed to provide students with important and necessary skills for whatever career path they may choose and are designed for students who have a specific interest in pursuing a career in one of the following areas below. A number of these courses, when taken at the honors level, may have college credit available. Please note that some courses in the Nashua Technology Center (NTC) are offered as part of a two-year program to be taken during a student's junior and senior year but some programs are available to sophomores as well and are referenced in course descriptions. Students who will be able to complete BOTH years of the program are given preference when enrollments in these courses are determined. Those who meet the requirements for the first year of a program are not guaranteed placement as space is limited due to area agreements with regional sending schools and fixed class sizes. No credit is awarded for withdrawing at midyear.

Programs offered at one high school are available to students from both schools. Shuttle buses run between the two high schools to transport the students.

CTE Programs & NTC Courses at Nashua High North	CTE Programs & NTC Courses at Nashua High South	CTE Programs at North & South
Automotive Technology	Advanced Manufacturing	College Accounting
Biotechnology & Biomedical Sciences	CADD	Business Finance
Culinary Arts	Careers in Education	Marketing
Cosmetology	Computer Networking & Cyber Security	
Design & Visual Communication	Construction Technology	
Drone Technology	Electrical Technology	
Marine Robotics	Health Sciences	
	HVACR	
	Engineering Pathways	
	Video Production & Broadcasting	

#### Nashua Technology Center

Course #	Description	Credit	Level	Term Q-S-Y	Pre-Requisite	Notes
5001	Accounting Fundamentals	1	Unleveled	S	•	Meets ICT and Math
	-					Experience requirement
5011	Digital Life	0.5	Unleveled	Q		Meets ICT requirement
5027	College Accounting 1 (H)	1	Honors	S		Meets ICT and Math
5037	College Accounting 2 (H)	1	Honors	S	College Accounting 1 or Advanced Accounting Topics	Experience requirement. Meets ICT and Math Experience requirements. NTC Director approval
5041	Advanced Accounting Topics	1	Unleveled	S	Accounting Fundamentals or College Accounting 1	Meets ICT and Math Experience requirement
5047	Advanced Accounting Topics (H)	1	Honors	S	Accounting Fundamentals or College Accounting 1	Meets ICT and Math Experience requirement
5051	Introduction to Business	0.5	Unleveled	Q		Meets ICT Requirement and Math requirement
5061	Desktop Publishing	1	Unleveled	S		Meets ICT requirement.
5067	Desktop Publishing (H)	1	Honors	S		Meets ICT requirement.
5071	Software Applications	1	Unleveled	S		Meets ICT requirement.
5101	Small Business Management	1	Unleveled	S		Meets ICT requirement.
5107	Small Business Management (H)	1	Honors	S		Meets ICT requirement.
5121	Marketing for Sports and Entertainment	1	Unleveled	S		Meets ICT and Math Experience requirement
5127	Marketing for Sports and Entertainment (H)	1	Honors	S		Meets ICT and Math Experience requirement
5151	Child Growth & Dev.	1	Unleveled	S		
5161	Exploring Contemporary	1	Unleveled	S		Meets Math Experience
5171	Cooking Foods Technology	1	Unleveled	S		requirement Meets Math Experience
5181	Lifespan Nutrition	1	Unleveled	S		requirement
5191	Human Relations	1	Unleveled	S		
5197	Human Relations (H)	1	Honors	S		
5201	On Your Own	0.5	Unleveled	Q		Meets Math Experience requirement
5211	Interior Design	1	Unleveled	S		Meets ITC requirement

Course #	Description	Credit	Level	Term Q-S-Y	Pre-Requisite	Notes
5221	Automotive Technology 1	2	Unleveled	Ŷ	Algebra 1 or Algebra 1 Part 2 and Physical Science	Student must supply their own instructor- approved safety shoes must be worn in class Lab coat will be provided for lab work. Meets Math Experience requirement.
5231	Automotive Technology 2	2	Unleveled	Y	Automotive Tech. 1	Student supplied, instructor-approved safety shoes must be worn in class and on the job site. Students must provide their own transportation to work site. Meets Math Experience requirement. NTC Director approval.
5237	Automotive Technology 2 (H)	2	Honors	Y	Automotive Tech. 1	Student supplied, instructor-approved safety shoes must be worn in class and on the job site. Students must provide their own transportation to work site. Meets Math Experience requirement. NTC Director approval.
5241	Drone Technology	1	Unleveled	S		Meets ICT requirement
5251	Biotechnology & Biomedical Science 1	2	Unleveled	Y	Algebra 1 or Algebra 1 Part 2, Physical Science or Physics	Satisfies Life Science/Biology graduation requirement. Meets Math Experience requirement
5257	Biotechnology & Biomedical Science 1 (H)	2	Honors	Y	Algebra 1 or Algebra 1 Part 2, Physical Science or Physics	Satisfies Life Science/Biology graduation requirement. Meets Math Experience requirement
5261	Biotechnology & Biomedical Science 2	2	Unleveled	Y	Biotechnology & Biomedical Science 1	NTC Director approval. Meets ICT and Math Experience requirement

5267	Biotechnology & Biomedical Science 2 (H)	2	Honors	Y	Biotechnology & Biomedical	NTC Director approval. Meets ICT and Math
					Science 1	Experience requirement
5271	CADD 1	2	Unleveled	Y		Meets ICT and Math Experience requirement
5277	CADD 1 (H)	2	Honors	Y		Meets ICT and Math
5277		2	11011013	•		Experience
						requirement.
5281	CADD 2	2	Unleveled	Y	CADD 1	NTC Director approval.
0101	0	-		·	0/1222	Meets Math Experience
						requirement.
5287	CADD 2 (H)	2	Honors	Y	CADD 1	NTC Director approval.
	. ,					Meets Math Experience
						requirement.
5291	Construction Technology 1	2	Unleveled	Y		Meets Math Experience
						requirement
5301	Construction Technology 2	2	Unleveled	Y	Construction	NTC Director approval.
0001		-	0	•	Tech. 1	Meets Math Experience
						requirement.
5307	Construction Technology 2	2	Honors	Y	Construction	NTC Director approval.
	(H)				Tech.1	Meets Math Experience
	. ,					requirement.
5311	Cosmetology 1	2	Unleveled	Y	Algebra 1 or	Uniform purchase
					Algebra 1 Part 2	required. Registration
					& Physical	with State Board.
					Science or	
					Biology	
5321	Cosmetology 2	2	Unleveled	Y	Cosmetology 1	Uniform required. NTC
						Director approval.
5332	Culinary Arts 1	2	Unleveled	Y		Purchase of uniform
						and black safety shoes
						required. Meets Math
						Experience
						requirement.
5337	Culinary Arts 1 (H)	2	Honors	Y		Purchase of uniform
						and black safety shoes
						required. Meets Math
						Experience
F0 / /		_	+			requirement.
5341	Culinary Arts 2	2	Unleveled	Y	Culinary Arts 1	NTC Director approval.
						Meets Math
						Experience
E2/7	Culinary Arts 2 (H)	2	Honors	Y	Culipary Arts 1	requirement.
5347	Culliary Arts Z (T)	Z	Honors	ř	Culinary Arts 1	NTC Director approval.
						Meets Math
						Experience requirement.
5351	Careers in Education 1	2	Unleveled	Y		
5357	Careers in Education 1 (H)	2	Honors	Y		

5361	Careers in Education 2	2	Unleveled	Y	Careers in Education 1	NTC Director approval.
5367	Careers in Education 2 (H)	2	Honors	Y	Careers in Education 1	NTC Director approval.
5371	Electrical Technology 1	2	Unleveled	Y		Meets Math Experience requirement.
5381	Electrical Technology 2	2	Unleveled	Y	Elec. Tech. 1	NTC Director approval. Meets Math Experience requirement.
5391	Business Finance	1	Unleveled	S		Meets ICT and Math Experience requirement
5397	Business Finance (H)	1	Honors	S		Meets ICT and Math Experience requirement.
5401	Financial Services Internship	1	Unleveled	S		Meets ICT and Math Experience requirement
5411	Global Finance	1	Unleveled	S		Meets ICT and Math Experience requirement
5417	Global Finance (H)	1	Honors	S		Meets ICT and Math Experience requirement
5431	Design & Visual Communications 1	2	Unleveled	Y		Meets ICT requirement.
5437	Design & Visual Communications 1 (H)	2	Honors	Y		Meets ICT requirement.
5441	Design & Visual Communications 2	2	Unleveled	Y	Design & Visual Communications 1	
5447	Design & Visual Communications 2 (H)	2	Honors	Y	Design & Visual Communications 1	
5451	Health Sciences 1	2	Unleveled	Y	Biology	Uniform purchase required.
5457	Health Sciences 1 (H)	2	Honors	Y	Biology	Uniform purchase required.
5461	Health Sciences 2	3	Unleveled	Y	Health Sciences 1	1 block one semester, 2 blocks other semester. NTC Director approval.
5467	Health Sciences 2 (H)	3	Honors	Y	Health Sciences 1	1 block one semester, 2 blocks other semester. NTC Director approval.
5491	Advanced Manufacturing 1	2	Unleveled	Y	Successful completion of Geometry (E or H)	Meets Math Experience requirement.
5501	Advanced Manufacturing 2	2	Unleveled	Y	Advanced Manufacturing	NTC Director approval. Meets Math Experience requirement.

5507	Advanced Manufacturing 2	2	Honors	Y	Advanced	NTC Director approval.
5507	(H)	2	Tionors	•	Manufacturing	Meets Math Experience
	(11)				Manalaccaning	requirement.
5511	HVACR- 1	2	Unleveled	Y		Meets Math
5511		~	onicvered	•		Experience
						requirement.
5521	HVACR- 2	2	Unleveled	Y	HVACR- 1	Meets Math
3321	TWACK- 2	2	Unieveleu	I	ITVACK-1	Experience
						requirement. NTC
FF 24		2	Honors	V	HVACR- 1	Director approval
5521	HVACR- 2 (H)	2	Honors	Y	HVACK- I	Meets Math
						Experience
						requirement. NTC
						Director approval
5531	Marketing for Retail and	1	Unleveled	S		Meets ICT and Math
	Fashion					Experience requirement
5537	Marketing for Retail and	1	Honors	S		Meets ICT and Math
	Fashion (H)					Experience requirement
5541	Marketing Management and	2	Unleveled	Y	Marketing for	NTC Director approval.
	Social Media				Retail and	Meets ICT requirement
					Fashion or	and Math Experience.
					Marketing for	
					Sports and	
FF 47		2		N/	Entertainment	
5547	Marketing Management and	2	Honors	Y	Marketing for Retail and	NTC Director approval.
	Social Media (H)					Meets ICT and Math
					Fashion or	Experience
					Marketing for Sports and	requirement.
					Entertainment	
5551	Introduction to Engineering	1	Unleveled	S	Lintertainment	Incoming freshmen
2221	Design	1	Unieveleu	5		enrolled in Honors
	Design					Algebra may elect this
						course. Meets ICT and
						Math Experience requirement.
6667	Introduction to Engineering	1	Honora	s		
5557	Introduction to Engineering	1	Honors	5		Incoming freshmen
	Design (H)					enrolled in Honors
						Algebra 1 may elect
						this course. Meets ICT
						and Math Experience
		-	<b> </b>			requirement.
5561	Computer Networking &	2	Unleveled	Y		Meets ICT
		1				requirement.
	Cyber Security 1		1 1			
5567	Computer Networking &	2	Honors	Y		Meets ICT
	Computer Networking & Cyber Security 1 (H)		Honors	Y		Meets ICT requirement.
5567 5571	Computer Networking &	2	Honors Unleveled	Y Y	Computer	
	Computer Networking & Cyber Security 1 (H)				Computer Networking 1	requirement.
	Computer Networking & Cyber Security 1 (H) Computer Networking &					requirement.

5601	Video Production 1	2	Unleveled	Y		Meets ICT and Math
						Experience
						requirement.
5607	Video Production 1 (H)	2	Honors	Y		Meets ICT and Math
		-				Experience
						requirement.
5611	Video Production 2	2	Unleveled	Y	Video	Meets ICT and Math
5011		2	onicvered	•	Production 1	Experience
						requirement. NTC
						Director approval
5617	Video Production 2 (H)	2	Honors	Y	Video	Meets ICT and Math
5017		-	nonors	•	Production 1	Experience
						requirement. NTC
						Director approval
5741	Power Mechanics 1	0.5	Unleveled	Q		Meets Math
37.11		0.5	onicvered	4		Experience
						requirement
5751	Electricity/Electronics	0.5	Unleveled	Q		
5761	Graphic Design 1	0.5	Unleveled	Q		Meets Math
5701	Graphic Design 1	0.5	Unieveleu	ų		Experience
						requirement. Meets
						ICT or Art requirement.
5771	Woodworking 1	0.5	Unleveled	Q		Meets Math
5//1		0.5	Unieveleu	ų		Experience
						requirement
5781	Woodworking 2	1	Unleveled	S	Woodworking 1	Meets Math
5701		-	onicveled	5	Woodworking 1	Experience
						requirement
5821	Marine Robotics	1.0	Unleveled	S	Algebra 1 or	Meets Math
5021	Warme Robotics	1.0	onicveled	5	Algebra 1 Part 2,	Experience
					NTC Director's	requirement. South
					approval	students will need to
					approva	travel to North.
5841	Power Mechanics 2	0.5	Unleveled	Q	Power	Meets Math
		0.0	0	~	Mechanics 1	Experience
						requirement.
5851	Parenting	0.5	Unleveled	Q		
5861	Graphic Design 2	0.5	Unleveled	Q	Graphic Design 1	Meets Math
						Experience
						requirement. Meets
			<b>↓</b>			ICT or Art requirement.
5901	Personal Finance	0.5	Unleveled	Q		Meets ICT and Math
						Experience requirement
5921	Computer Integrated	1	Unleveled	S	Algebra or	Meets ICT and Math
	Manufacturing				Algebra 1 Part 2	experience
						requirement.
5927	Computer Integrated	1	Honors	S	Algebra 1 or	Meets ICT and Math
	Manufacturing (H)				Algebra 1 Part 2	experience
						requirement.

5931	Principles of Engineering	1	Unleveled	S	Intro to	Meets ICT and Math
5551	Design	-	Onieveleu	5	Engineering	
	Design					experience
					Design	requirement.
5937	Principles of Engineering	1	Honors	S	Intro to	Meets ICT and Math
	Design (H)				Engineering	experience
					Design	requirement.
5941	Engineering Design &	1	Unleveled	S	Intro. to	Meets ICT and Math
	Development				Engineering	experience
					Design	requirement. NTC
						Director approval
5947	Engineering Design &	1	Honors	S	Intro. to	Meets Math
	Development (H)				Engineering	experience
					Design	requirement. NTC
						Director approval
5951	Robotics Using VEX	1	Unleveled	S		Meets ICT and Math
						experience
						requirement
5957	Robotics Using VEX (H)	1	Honors	S		Meets ICT and Math
						experience
						requirement

# Alvirne High School Courses

				Term		
Course #	Description	Credit	Level	Q-S-Y	Pre-Requisite	Notes
AL5731	Forest & Wildlife Management 1	2	Unleveled	Y		
AL5831	Forest & Wildlife Management 2	2	Unleveled	Y	Forest & Wildlife Mgmt. 1	
AL5671	Heavy Duty Mechanics Tech. 1	2	Unleveled	Y		
AL5681	Heavy Duty Mechanics Tech. 2	2	Unleveled	Y	Heavy Duty Mechanics 1	
AL5631	Veterinary Science 1	2	Unleveled	Y		
AL5641	Veterinary Science 2	2	Unleveled	Y	Veterinary Science 1	
5791	Welding 1	2	Unleveled	Y		
5801	Welding 2	2	Unleveled	Y	Welding 1	

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# SECTION 4

**Course Descriptions** 

Nashua High School

#### **Course Descriptions**

Accounting Fundamentals	1 Credit	Gr. 9, 10, 11, 12	Course: 5001					
Does your future include owning your own business? This course teaches students the process of accurate recordkeeping for								

the preparation of business financial statements and the determination of the value of a business.

**Note:** Meets ICT and Math Experience requirement.

Adaptive Arts	0.5 Credit	Gr. 9, 10, 11,12	Course: 6401
This course will give intensive special needs students the opport	rtunity to work	with peers while crea	ting art which can be
taken home and used for design and function. Most projects n	nade are functio	onal and practical. Th	ese explorations may

taken home and used for design and function. Most projects made are functional and practical. These explorations may include printmaking, glass painting, recycled sculptures, knitting on a loom, paper mâché and tie-dye. The classroom teacher has the direction to adapt the curriculum based on individual; student needs.

Adaptive Music	0.5 Credit	Gr. 9, 10, 11,12	Course: 9231			
Students will be introduced to different types of music and musical instruments. They will learn to handle various musical						
instruments and keep time with the music through the use of th	ose instruments	s as well. General mus	ical terms will also be			

explored. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individualized student needs.

**<u>Prerequisite</u>**: Case manager/Special Education teacher recommendation.

Adaptive PE	0.5 Credit	Gr. 9, 10, 11,12	Course: 9241
Students will take part in individual and group activities that will	I toach studonts	how to be part of a t	a am and practice true

Students will take part in individual and group activities that will teach students how to be part of a team and practice true sportsmanship. These activities will also help promote personal fitness and lifetime wellness. Some students will also learn tolerance and leadership as well as how to adapt activities to meet the abilities of all students. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individualized student needs.

<u>Prerequisite</u>: Case manager/Special Education teacher recommendation and/or Physical Education teacher recommendation.

Advanced Accounting Topics	1 Credit	Gr. 10, 11, 12	Course:	5041-
			5047	

For students who love accounting and computers, here's more! Topics include departmentalized accounting and corporate accounting. Uses software that complements text and completes a variety of computerized activities that simulate real world applications.

# Note: Meets ICT and Math Experience requirement

Prerequisite: Accounting Fundamentals or College Accounting 1

Advanced Computer Science Topics	1 Credit	Gr. 10, 11,12	Course:	3045	-
			3047		

Students will further explore the modern areas of interest in computer science. Topics may include but are not limited to: app development; microcontrollers and robots; e-textiles; cybersecurity; and artificial intelligence. This course will look at the applications, implications, and science behind the newest innovative developments in the field of computer science.

Advanced Drawing 1	L Credit	Gr. 9, 10, 11, 12	Course: 6021
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This course is intended for students with a strong interest in the visual arts and the desire to improve artistic skills. Experiences will include observational drawing, anatomy, portraiture, linear perspective, color theory, painting, printmaking, and sculptural activities. Sketchbooks will be used for practice and proficiency activities. Expectations include daily homework assignments and independent research designed to enhance self-directed learning.

Prerequisite: Any high school level visual art course including grade 8 "Introduction to High School Art"

Advanced Math Topics	1 Credit	Gr. 11, 12	Course: 3155

Students enrolled in algebra at the extension or foundation level MUST take this Advanced Math Topics (AMT) to continue their study of mathematics towards the pre-calculus and calculus courses. Students enrolled in algebra 2 at the honors level who need reinforcement of further algebra topics should take this course. Topics such as triangle trigonometry, statistics, functions, probability, sequence and series, and conic sections are studies. This course emphasizes concept development and applications.

Prerequisite: Geometry and Algebra 2 (C or better suggested).

Advanced Manufacturing 1	2 Credit	Gr. 10, 11,12	Course: 5491
Students in the manufacturing program learn manufacturing	nrocesses and	design through a n	roject-based learning

Students in the manufacturing program learn manufacturing processes and design through a project-based learning experience. Projects may include processes such s CNC milling, waterjet cutting, plasma table, welding, CADD lathe, robotics, dimensional measurements and such. Students can follow a wide variety of paths including, graphic design production, machine tooling and forming, welding and material joining, automation, and project innovation and design.

#### Prerequisite: Geometry E/H

Note: Meets Math Experience requirement

Advanced Manufacturing 2	2 Credits	Gr. 11, 12	Course: 4401-5397
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Students in the manufacturing program, year two, will complete a capstone project capitalizing on project management and the processes they are interested in. During this time students will also have a WBL (Work Based Learning) opportunity, where they will work alongside an industry partner in the real world.

### Prerequisite: Advanced Manufacturing 1

Note: Meets Math Experience requirement

	Advanced Photography	1 Credits	Gr. 11, 12	Course: 6311
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Students will study advanced techniques to become more professional, skillful, and creative in their approach to taking and developing images. Students continue to study digital and traditional darkroom photography as well as printing museum quality photographs and crafting a portfolio of images. Students also learn alternative darkroom and lighting techniques which enhance the quality of their emerging portfolio

<u>Note</u>: Meets ICT and Math Experience requirement. Students must provide their own 35mm SLR camera with manual shutter speeds and aperture capabilities and a digital camera with point and shoot options to change modes and also required is a flash drive with 4GB capacity. It is recommended that students provide their own equipment. The high schools will provide assistance on a case-by-case basis for students without the required personal equipment. May be taken to fulfill the computer requirement or Art but not both.

Prerequisite: Photography

Advanced Placement Art History	2 Credits	Gr. 11, 12	Course: 6109	
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This advanced placement level art history class follows the same process as the general art history course and chronologically continues through to contemporary art during the spring semester. Students taking this course are strongly urged to take the general art history class prior to taking this AP course, since the goal is to have all students take the AP exam in May.

*Note:* Students are expected to take the AP exam in May.

	Advanced Placement Biology	2 Credits	Gr. 11, 12	Course: 4029
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AP Biology is an introductory college level course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes-energy and communication, genetics, information transfer, ecology and interactions.

*Note:* Students are expected to take the AP exam in May.

**<u>Prerequisite</u>**: Biology or portfolio credit and completion/ concurrent first semester in Chemistry. Anatomy and Physiology or Zoology are recommended.

Advanced Placement Calculus-AB	2 Credits	Gr. 11, 12	Course: 3129

This course is the equivalent of a one semester college level course and covers the College Board syllabus needed for the Calculus AB exam. Topics include: functions and limits, the derivative, applications of the derivative, the integral, applications of the integral, transcendental functions and numerical methods as well as slope fields.

<u>Note</u>: students may not take this course for credit after taking Honors Calculus. Students are expected to take the AP exam in May.

Prerequisite: Honors Pre-Calculus

Advanced Placement Calculus BC	1 Credit	Gr. 11, 12	Course: 3139
		2 .	

This course is a continuation of AP Calculus AB. The combined three semesters of these two courses are roughly equivalent to one year of college level Calculus and completes the College Board syllabus needed for the Calculus BC exam. Topics include: the Calculus of Hyperbolic functions, convergence test for series, Taylor and Maclaurin series, parametric, vector, and polar functions. Indefinite integrals and partial fractions are also a part of the course.

<u>Note</u>: Students are expected to take the AP exam in May. <u>Prerequisite</u>: AP Calculus AB

Advanced Placement Calculus BC (FY)	2 Credit	Gr. 11, 12	Course: 3159
AP Calculus BC (FY) is available to students who are at an accel	erated learning	pace. The full-year co	ourse is a compressed
version of AP Calculus AB and AP Calculus BC.			

<u>Note:</u> Students are expected to take the AP exam in May. <u>Prerequisite:</u> Pre-Calculus (H) and Teacher Recommendation

Advanced Placement Chemistry	2 Credits	Gr. 11, 12	Course: 4159
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The AP Chemistry course provides students with a foundation to support future advanced course work in chemistry. Through inquiry-based learning, students develop critical thinking and reasoning skills. Students cultivate their understanding of chemistry and science practices as they explore topics such as: atomic structure, intermolecular forces and bonding chemical reactions, kinetics, thermodynamics and equilibrium.

<u>Note</u>: Students are expected to take the AP exam in May. Meets ICT requirement. <u>Prerequisite</u>: Chemistry, Geometry and Algebra 2.

This course introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use if data structures to organize large sets of data, the development and implantation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

<u>Note</u>: Meets ICT and Math Experience requirement. Students are expected to take the AP exam in May. <u>Prerequisite</u>: Pre-Calculus or currently taking Pre-Calculus

Advanced Placement English Language & Composition	2 Credits	Gr. 11	Course: 1039	
This course improves skills in expository writing and critical reading. Includes study of non-fiction prose samples from many				
academic disciplines and literary periods. These samples are selected as models of effective style. Students will complete a				
variety of exercises which will require different writing styles. This prepares students for the various kinds of writing				
assignments encountered in college. Through an organized study of the structure of sentences, paragraphs and larger				
discursive patterns, students learn the semantic, structural and	rhetorical resour	ces of the language.		

<u>Note:</u> Students are expected to take the AP exam in May. *Prerequisite:* English 1 and 2

Advanced Placement English Literature & Composition	2 Credits	Gr. 12	Course: 1049	
This course develops an acute understanding of literature. It increases awareness of written language and of the significance				

of underlying rhetorical devices and develops a more concise and effective writing style. Students study the novel, survey drama and critically analyze short stories and essays. Students also explore the structure of poetry including the epic poem.

<u>Note</u>: This course is comparable to college-level freshman course in English. Students are expected to take the AP exam in May.

**Prerequisite:** English 1, 2 and 3 or AP Language and Composition.

Advanced Placement Environmental Science	2 Credits	Gr. 10, 11, 12	Course: 4529	
The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in				
environmental science, through which students engage with the scientific principles, concepts and methodologies required				
to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and				
human-made environmental problems, and examine alternative solutions for resolving or preventing them. Environmental				
Science is interdisciplinary, embracing topics from geology, biology environmental studies, environmental science chemistry				
and geography.				

# <u>Note</u>: Students are expected to take the AP exam in May. <u>Prerequisite</u>: Biology

Advanced Placement European History	2 Credits	Gr. 10, 11, 12	Course: 2609	
This dynamic full year college level course immerses the student in European History. The focus is on the socioeconomic,				

cultural, intellectual and political forces that shaped Modern Europe since 1450. Course materials/sources utilize primary documents, art forms, and media as well as traditional text and secondary sources.

**Note:** Students are expected to take the AP exam in May

Advanced Placement French	1 Credit	Gr. 9, 10, 11, 12	Course: 8619	
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Expand your proficiency through the exploration of diverse contemporary topics from the French-speaking world. Your understanding of cultural products, practices and perspectives will help you develop skills that can be applied beyond the French course in further French study and everyday life.

<u>Note</u>: Students are expected to take the AP exam in May. <u>Prerequisite</u>: French 5 or teacher recommendation.

Advanced Placement Macroeconomics	1 Credit	Gr. 10, 11, 12	Course: 2569	
According to comparise Milton Friedrand "if you nut the federal covernment in charge of the Schere Depart in Fucane there				

According to economist Milton Friedman, "if you put the federal government in charge of the Sahara Desert, in 5 years there would be a shortage of sand." In this course, students investigate the nation's economy and the ability of policy makers to stabilize it. Topics include unemployment, inflation, growth, banking, fiscal and monetary policy and trade. Macroeconomics is useful for those planning to major in business, government, prelaw or statistics.

<u>Note</u>: Students are expected to take the AP exam in May. Meets Math Experience requirement <u>Prerequisite</u>: Solid Math background.

Advanced Placement Microeconomics	1 Credit	Gr. 10, 11, 12	Course: 2559
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According to the legendary scholar John Maynard Keynes, "Practical men are usually the slaves of some defunct economist. Students in this course learn how prices, wages and production are determined by the invisible hand" that guides resource allocation in the marketplace. Microeconomics is useful for those planning a career in business, accounting, finance or marketing.

<u>Note</u>: Students are expected to take the AP exam in May. Meets Math Experience requirement <u>Prerequisite</u>: Solid Math background.

	Advanced Placement Music Theory	1 Credit	Gr. 10, 11, 12	Course: 6239
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Study secondary dominants, non-harmonic tones and advanced chord progression, learn transpositions of all instruments, and compose works for several different musical ensembles. This course is for serious musicians aiming for composing, arranging or teaching careers.

<u>Note</u>: Students are expected to take the AP exam in May. This course may fulfill a music credit or ICT requirement but not both.

Prerequisite: Any music course.

Advanced Placement Physics 1	2 Credit	Gr. 11, 12	Course: 4059
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This Algebra-based is equivalent to a first semester college course in Algebra-based Physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work energy and power; mechanical waves and sound. It will introduce electric circuits.

<u>Note</u>: Students are expected to take the AP exam in May. Meets Math Experience requirement <u>Prerequisite</u>: Biology, geometry and Algebra 2.

Advanced Placement Physics 2	1 Credit	Gr. 11, 12	Course: 4109	
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This class combines logical, mathematical interpretation of the fundamental laws of physics with practical exercises. Students are taught in a manner similar to most college and university physics classes, with a lecture period followed by problem solving sessions and laboratory activities. Most learning takes place during interaction with the teacher during problem solving sessions.

<u>Note</u>: Students are expected to take the AP exam in May. Meets Math Experience requirement <u>Prerequisite</u>: Advanced Placement Physics 1.

Advanced Placement Psychology	2 Credits	Gr. 11, 12	Course: 2309
		<u>.</u>	

Engages students in a systematic study of the behavioral and mental processes of humans and phenomena associated with each of the major subfields within psychology. They also learn about methods psychologists use to explore the process involved in normal and abnormal perceptions, thoughts, feeling and actions.

*Note:* Students are expected to take the AP exam in May. Meets Math Experience Requirement.

Advanced Placement Spanish	1 Credit	Gr. 9, 10, 11, 12	Course: 8647	
Expand your proficiency through the exploration of diverse contemporary topics from the Spanish-speaking world.				

understanding of cultural products, practices and perspectives will help you develop skills that can be applied beyond the Spanish course in further Spanish study and everyday life.

<u>Note</u>: Students are expected to take the AP exam in May. <u>Prerequisite</u>: Spanish 5, teacher recommendation

Advanced Placement Statistics	2 Credits	Gr. 10, 11, 12	Course: 3259
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Students learn the major concepts and tools for collecting, analyzing and drawing conclusions from data. They explore several broad conceptual themes of statistics, such as exploring data, planning a study, modeling and anticipating patterns and statistical inference. Students perform their own data analysis and research and are required to communicate their analysis in formal writing. This course follows the AP Statistics curriculum established by the College Board, while also including material that guide students in conducting and communicating their own statistical analysis. Students need to use a TI83 calculator and statistical software packages.

<u>Note</u>: A student may take this course or Probability and Statistics but NOT both. Students are expected to take the AP exam in May.

Prerequisite: Pre-Calculus (H)

Advanced Placement Studio Art	2 Credits	Gr. 11, 12	Course: 6259
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This course prepares students for rigorous study in creating and expressing visual ideas. The course follows the AP curriculum for the Drawing Portfolio requirements, focusing on works that cover the Breadth, Concentration, and Quality sections of the portfolio. AP is designed for students interested in the arts in their post-secondary studies or as a career. The course is taught at the college level, and portfolios submitted to the final exam in May will qualify for college credit if the student earns and adequate score from the College Board review team.

<u>Note</u>: Meets ICT requirement. Students are expected to take the AP exam in May. <u>Prerequisite</u>: Studio Art and Art History are strongly recommended

Advanced Placement US Government & Politics	2 Credits	Gr. 10, 11, 12	Course: 2659	
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Students gain a critical perspective on government and politics in the United States. The focus is on the historical and philosophical foundations of constitutional government, the creation of the Constitution, the organization of the American government, civil liberties and the expansion of rights over the last two hundred years. Students also study general concepts used to interpret American politics. Students have the opportunity analyze the various institutions, group beliefs and ideas that constitute political reality in the US today and, at instructor's discretion, may participate in "We the People Program."

*Note:* A very strong background in US History is recommended. Students are expected to take the AP exam in May.

Advanced Placement US History	2 Credits	Gr. 11	Course: 2039
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Students will investigate and analyze the full chronological spectrum of American history. Thematic investigation into such topics and concepts as politics, religion, race, conflict and foreign policy will allow students to draw conclusions about current events. In the process of preparing for the exam, reading and writing skills are emphasized, but students are also evaluated on presentations, projects and research. Large amounts of reading, both textbook and primary source.

*Note:* Students may take this course or US History but not BOTH. Students are expected to take the AP exam in May.

Advanced Placement World Studies	2 Credits	Gr. 9	Course: 2019
Students will learn about major developments in the history of A	sia, Africa, Euro	pe, Oceania, and the	Americas from 1200 CE
to present. There will be extensive opportunity for students to	o learn and app	ly in depth historica	l thinking skills as they
explore our global past. Historical thinking skills provide opportu	inities for studer	nts to learn and to th	ink like historians, most
notably to analyze evidence about the past and to create pers	suasive historica	l arguments. Five th	emes, focusing on the
environment, cultures, state-building, economic systems, social s	tructures, provid	le areas of historical i	nquiry for investigation
throughout the course and encourage students to analyze histor	y from multiple	perspectives.	

Note: students may take this course or World Studies but NOT both. Students are expected to take the AP exam in May.

AFJROTC 1A: Aviation History	1 Credits	Gr. 9, 10, 11, 12	Course: 0601

Forty percent of this course is an aviation history course focusing on the development of human flight from Ancient Times to pre-WW1. Forty percent of the course is a leadership education course focusing on citizenship, character and Air Force tradition. During this part of the course, students will learn about drill and ceremony, self-control, and citizenship. Twenty percent of the course is a wellness program that includes sports, physical training and testing, and informational sessions about developing a healthy lifestyle.

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program. This course will not run during school year 22/23.

AFJROTC 1B: Aviation History	1 Credit	Gr. 9, 10, 11, 12	Course: 0691
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Forty percent of this course is an aviation history course focusing on the development of human flight from WW1 to modern times. Forty percent of the course is a leadership education course focusing on citizenship, character and Air Force tradition. During this part of the course, students will learn about drill and ceremony, self-control, and citizenship. Twenty percent of the course is a wellness program that includes sports, physical training and testing, and informational sessions about developing a healthy lifestyle.

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program. This course will not run during school year 22/23.

AFJROTC 2A: The Science of Flight	1 Credit	Gr. 9, 10 11,12	Course: 0651
Forty percent of this course is an aviation science course focusing	on flight hasics	the aerosnace enviro	nment and principles

Forty percent of this course is an aviation science course focusing on flight basics, the aerospace environment, and principles of flight. Students will study the atmosphere and gain an understanding of the principles of flight. Forty percent of the course focuses on communication, awareness, and leadership. Twenty percent of the course is a wellness program that includes sports, physical training and testing, and informational sessions on developing a healthy lifestyle.

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program.

AFJROTC 2B: The Science of Flight	1 Credit	Gr. 9, 10, 11, 12	Course: 0591

Forty percent of this course is an aviation science course focusing on flight and human physiology, navigation, and flight instrumentation. Forty percent of the course focuses on communication, awareness, and leadership. Twenty percent of the course is a wellness program that includes sports, physical training and testing, and informational sessions on developing a healthy lifestyle.

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program.

AFJROTC 3A-Cultural Studies	1 Credit	Gr. 11, 12	Course: 0611
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Forty percent of this course introduces students to various regions of the world from a geographic, historical and cultural perspective. The course provides increased international awareness and insight into foreign affairs that permits a more educated understanding of other cultures and enhanced knowledge of American's interest and role in the world. Geopolitical issues such as terrorism, economics, politics, military issues, religion, environmental concerns, human rights, disease, over population, literacy, the migration of peoples and other cultural issues will be examined. The regional areas included in this course are Europe, the Middle East, South Asia, East Asia, Africa, and Latin America. The lessons include excellent videos to provide a window into life and issues within the regions, followed by a variety of hands on activities created to engage the student. Forty percent of the course is a leadership education course focusing on citizenship, character and Air Force tradition. During this part of the course, students will learn about drill and ceremony, self-control and citizenship. Twenty percent of the course is a wellness program that includes sports, physical training and testing, and informational sessions on developing a healthy lifestyle.

**Note:** Students signing up for this course do so with the understanding they are participating in an Air Force Junior ROTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program. This course will not run during school year 22/23.

AFJROTC 3B: Global Awareness	1 Credit	Gr. 9, 10, 11,12	Course: 0621	
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Forty percent of this course introduces students to various regions of the world from a geographic, historical and cultural perspective. The course provides increased international awareness and insight into foreign affairs that permits a more educated understanding of other cultures and enhanced knowledge of American's interest and role in the world. Geopolitical issues such as terrorism, economics, politics, military issues, religion, environmental concerns, human rights, disease, over population, literacy, the migration of peoples and other cultural issues will be examined. The regional areas included in this course are Europe, the Middle East, South Asia, East Asia, Africa, and Latin America. The lessons include excellent videos to provide a window into life and issues within the regions, followed by a variety of hands-on activities created to engage the student. Forty percent of the course is a leadership education course focusing on citizenship, character and Air Force tradition. During this part of the course, students will learn about drill and ceremony, self-control and citizenship. Twenty percent of the course is a wellness program that includes sports, physical training and testing, and informational sessions on developing a healthy lifestyle.

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program. This course will not run during school year 22/23.

AFJROTC 4A: Exploring Space	1 Credit	Gr. 9, 10, 11, 12	Course: 0631	
Forty percent of the course focuses on the history of space exploration, the earth and moon system, and the solar system.				
Forty percent of this course is a "hands-on course focusing on teaching the students valuable life skills, such as preparing for				
college, employment and the basics of financial management.	Twenty percent	t of the course is a v	vellness program that	
includes sports, physical training and testing and informational sessions on developing a healthy lifestyle.				

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program.

Note: Meets Math Experience requirement

AFJROTC 4B: Exploring Space	1 Credit	Gr. 9, 10, 11, 12	Course: 0671	
Forty percent of the course focuses on exploring, living and working in manned/unmanned spaceflight, space technology,				
and the commercial use of space. Forty percent of this course	e is a "hands-on	" course focusing on t	teaching the students	
valuable life skills, such as preparing for college, employment and the basics of financial management. Twenty percent of the				
course is a wellness program that includes sports, physical trai	ning and testing	g and information sess	sions on developing a	

healthy lifestyle. Meets Math Experience requirement.

**Note:** Meets Math Experience requirement. Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program.

AFJROTC 5: Management of the Cadet Corps	1 Credit	Gr. 9, 10, 11, 12	Course: 0641
Forth persons of this class is a hands on management source offerding the codets the experiturity to put the theories of			

Forty percent of this class is a hands-on management course affording the cadets the opportunity to put the theories of previous leadership courses into actual practice. Cadets will plan, organize, coordinate, direct and control the key events and activities of the cadet corps. Forty percent of this class will concentrate on management techniques and theory. Twenty percent of the course is a wellness program that includes sports, physical training and testing and informational session on developing a healthy lifestyle.

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program.

**Prerequisite:** Recommendation by the Senior Aerospace Instructor

AFJROTC 6: Survival	1 Credit	Gr. 9, 10, 11, 12	Course: 0681

Forty percent of this course is a basic survival instruction course designed to provide training in skills, knowledge, and attitudes necessary to successfully perform fundamental tasks needed for survival. The course also presents "good to know" information that would be useful in any situation, such as someone lost while hunting or the survivors of an aircraft mishap. Forty percent of the course is a leadership education course focusing on citizenship, character and Air Force tradition. During this part of the course, students will learn about drill and ceremony, self-control and citizenship. Twenty percent of the course is a wellness program that includes sports, physical training and testing, and informational sessions on developing a healthy lifestyle.

<u>Note</u>: Students who sign up for this course do so with the understanding that they are participating in an AFJOTC program and must adhere to the program standards without exception. This includes, but is not limited to wearing a uniform and maintaining all grooming and behavior standards. Failure to maintain standards will result in removal from the course/program. This course will not run during school year 22/23.

Algebra 1 (H)	1 Credit	Gr. 9	Course: 3207	
This semester-long course will build a strong foundation necessary to succeed in future math courses. Concepts and topics				
are developed around the study of the real number system; understanding slope and its applications to linear systems and				
inequalities; the representations of functions through tables, graphs, and equations; factoring; and becoming fluent with				
polynomials and related operations. Students will also explore, graph and manipulate quadratic equations. Learning the				
fundamentals will be accomplished through application of algebraic techniques to real world scenarios.				

Algebra 1 Part 1	1 Credit	Gr. 9, 10, 11, 12	Course: 3083-3085	
This semester long course will build a strong foundation necessary to succeed in the future math courses. Concepts and				
topics are developed around study of the real number system; understanding slope and its applications to linear systems and				
inequalities: the representation of functions through tables, graphs and equations. Learning the fundamentals will be				
accomplished through application of algebraic techniques to real	I world scenario	S.		

<u>Note</u>: Students must successfully complete Algebra 1 Part 1 and Algebra 1 Part 2 to earn credit for the Algebra 1 graduation requirement.

Algebra 1 Part 2	1 Credit	Gr. 9, 10, 11, 12	Course: 3093-3095

This semester long course will build a strong foundation necessary to succeed in the future math courses. The course will build on materials covered in Algebra 1 Part 1, expanding from linear concepts to polynomials. Concepts and topics are developed around becoming fluent with polynomials and their relation to operations; factoring: accomplished through application of algebraic techniques to real world scenarios.

<u>Note</u>: Students must successfully complete Algebra 1 Part 1 and Algebra 1 Part 2 to earn credit for the Algebra 1 graduation requirement.

Prerequisite: Algebra 1 Part 1

Algebra 1 Continued	1 Credit	Gr. 9, 10, 11, 12	Course: 3123
This course will serve as the missing link to help prepare for G	Geometry and A	Algebra 2. Topics such	as solving equations,

graphing, graphing linear equations, quadratics, exponents and radicals will be reinforced.

**Prerequisite:** Algebra 1 and teacher recommendation.

Algebra 2	1 Credit	Gr. 10, 11, 12	Course: 3055-3057
Students use functions to solve real world problems. They also	loorn to rocogni	zo write colve and gr	anh linear quadratic

Students use functions to solve real world problems. They also learn to recognize, write, solve and graph linear, quadratic, radical, polynomial, exponential, logarithmic and inverse functions and use models to predict results. Students explore systems of equations and inequalities, arithmetic and geometric sequences, composition of functions and matrices.

## Prerequisite: Algebra 1

Algebra 2 Continued	1 Credit	Gr. 11, 12	Course 3153
This course will serve as the missing link to help prepare for	Advanced Math	Topics. Focus will be	given to polynomial
functions, exponents and logarithms. More importantly, this cou	rse will meet the	e individual needs of th	ne students becoming
proficient in the mathematics competencies.			

**Prerequisite:** Algebra 2 and teacher recommendation.

Anatomy & Physiology	1 Credit	Gr. 10, 11, 12	Course: 4423-4425
This course covers a general overview of all body systems from the	ne skin to the re	productive system. Lal	os and dissections will
be used to reinforce physiological concepts. The extension level	course is challer	nging, requires good m	emorizing skills and a
commitment to homework.			

#### Prerequisite: Biology.

Anatomy & Physiology 1 (H)	1 Credit	Gr. 10, 11, 12	Course: 4357

Explores the structure and function of the human body, including biochemistry cell physiology and histology. Through extensive lab exercises, computer simulations and dissections student explore the anatomy and physiology of the skin, skeletal, muscular and nervous systems. This is a challenging course for highly motivated students who have disciplined study skills.

Prerequisite: Biology (E) or (H).

Anatomy & Physiology 2	1 Credit	Gr. 10, 11, 12	Course: 4413-4415
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Continues the exploration of anatomy and physiology with the student of the endocrine, circulatory, lymphatic, respiratory, digestive, excretory and reproductive systems. Students make use of extensive labs, computer simulations and dissections. This course is for highly motivated students who intend to pursue a medical field.

Prerequisite: Completion of Anatomy & Physiology 1

Anatomy & Physiology 2 (H)	1 Credit	Gr. 10, 11, 12	Course: 4407
Continues the exploration of anatomy and physiology with the s	tudent of the er	docrine, circulatory, l	ymphatic, respiratory,

digestive, excretory and reproductive systems. Students make use of extensive labs, computer simulations and dissections. This course is for highly motivated students who intend to pursue a medical field.

<u>Prerequisite</u>: Completion of Anatomy & Physiology 1 at the Honors level and earning a grade of C or better. College credit may be available.

Anthropology	1 Credit	Gr. 10, 11, 12	Course 2053-2055-
			2057

Students discover the answers to many questions about our culture and other cultures around the world. They examine marriage practices, courtship customs, dress and body decoration, human inventiveness, verbal and nonverbal communication and family groups. This class is for those interested in human beings, specifically in uncovering their past and applying that information to our modern world. Students learn through activities, discussions, films, independent research and project-based activities.

Art Experience	0.5 Credit	Gr. 9, 10, 11, 12	Course: 6091
This quarter course gives students the opportunity to explore an	t making in a vai	riety of ways. Each as	signment is hands on,
and connects to an art movement from the past. Lessons will	provide a histor	ical background that	supports the artist or
genre being covered. Two and three dimensional works will be i	introduced throu	ghout the term. From	m Van Gogh to Graffiti

Art, the course will take students on a trip through time and will explore traditional and unconventional methods of creating.

Art History1 CreditGr. 9, 10, 11, 12Course: 6107This honors level course begins the semester with a quick immersion into modern art, followed by hands-on are projects to<br/>trace the development of art chronologically from prehistory to the Renaissance. This approach uses a variety of materials,<br/>including texts, PowerPoints, videos and actual art reproductions to support instruction. The evaluation of students relies<br/>primarily on summative assessment techniques such as quizzes, tests, projects and written essays. Students develop a greater<br/>awareness and appreciation of art and gain an ability to discuss and critically evaluate works of art through numerous oral<br/>critiques as well as written communication.

Astronomy and Space Science	1 Credit	Gr. 11, 12	Course: 4253-
			4255-4257

Students gain a better understanding of the night sky, the universe and our place in it by using the planetarium at Nashua High School South. Students study planets, stars and galaxies, learn how to identify the constellation of the night sky as well as survey current events in astronomy and study the past, present and future of space exploration.

<u>Note:</u> Course is offered at South. North students must travel. <u>Prerequisite:</u> Biology

Automotive Technology 1	2 Credits	Gr. 11	Course: 5221
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Explores the transportation industry, automotive industry and specific automotive systems. Students learn about the automotive industry, vehicle lubrication, wheels and tires, brake systems, basic automotive electronics and steering and suspension. Instruction time is divided between the classroom and the shop. Students are required to maintain a notebook and participate in repair and maintenance procedures in the automotive lab.

<u>Note</u>: Students must supply their own instructor-approved safety shoes. Lab coats will be provided for lab work. Meets ICT and Math Experience requirement. Course is offered at Nashua High North. South students must travel. <u>Prerequisite</u>: Algebra and 9<sup>th</sup> or 10<sup>th</sup> grade science

Automotive Technology 2	2 credits	Gr. 12	Course: 5231-5237
Students participate in this work study program consisting of ins	structional time	spent in the classroom	n, automotive lab and
work time in area automotive service centers. Automotive Technol	ology 2 is design	ed to prepare the stud	ent for further studies

at the post-secondary technical schools or entry level work.

<u>Note</u>: Students must supply their own instructor-approved safety shoes to be worn to class and on the job site. Meets ICT and Math Experience requirement. Course is offered at Nashua High North. South students must travel.

**Prerequisite:** Automotive Technology 1 and NTC Director approval.

Band	1 Credit	Gr. 9, 10, 11, 12	Course: 6171	
Students perform music ranging from the Renaissance to contemporary European, American and world music, learning the				
historical backgrounds of composers and musical styles. This course sharpens music reading skills, musical elements and				
proper instrumental techniques. The band performs at school and civic functions, as well as concerts and competitions.				
Students are required to participate in all activities including	g weekly after	school rehearsals. Stu	idents also have the	
opportunity to audition for Jazz Band and other ensembles to participate in the NH Solo and Ensemble Festival and the New				
England Band Festival and to audition for the NH Jazz All State a	nd All State Fes	tival Bands or Orchest	ras. In addition to the	
above, the band performs at football games, parades and band s	shows.			

<u>Note</u>: Band is a performance-based course and may be repeated for credit. This course is open to students who have experience playing a band instrument.

<u>Note</u>: This is an A/B block class, which means that it will be combined with another class and offered every other day throughout the year and is worth one credit of the credits you need to select for a full schedule.

Biology	1 Credit	Gr. 9, 10, 11, 12	Course: 4023-
			4025-4027

Biology is an introductory life science course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, DNA, genetics, ecology, energy pathways in plants and animals and interactions between and among organisms.

<u>Note</u>: Requirement for graduation. Students may obtain credit for this by successfully completing the portfolio process. The waiver does not meet the life science graduation requirement.

Prerequisite: Physical Science or portfolio

Biotechnology & Biomedical Science 1	2 Credits	Gr. 10, 11	Course: 5251-5257

Students study biology and explore biotechnology by working in a real-world laboratory environment. Learn basic protocols and advanced techniques for analyzing cell structures, genetic manipulation, medical microbiology, molecular biology, forensic analysis and protein production. In this academic course, students will explore the theories and technologies of the rapidly expanding biotech industry through valuable hands-on activities conducted in a state-of-the-art laboratory. Internships are also available for qualified students. Lab coats are required for this class.

<u>Note</u>: This course satisfies the Life Science/Biology graduation requirement. Meets Math Experience requirement. Course is offered at Nashua High North. South students must travel.

**Prerequisite:** Algebra and 9<sup>th</sup> or 10<sup>th</sup> grade science

Biotechnology & Biomedical Science 2	2 Credits	Gr. 11, 12	Course: 5261-5267	
Become skilled in laboratory techniques most in demand in today's Biotech industry. Learn more about genetics, cell				
structure, protein production and purification. Recreate actual industry investigations in a real-world biotechnology				
laboratory. Write a resume and build a personal portfolio by writing technical labs and protocols. Guest speakers and field				
trips will supplement your lab and class work. Internships are also available for qualified students.				

<u>Note</u>: Meets ICT and Math Experience requirement. College credit may be available. Course offered at Nashua High North. South students must travel.

# <u>Prerequisite:</u> Biotechnology & Biomedical Science 1, NTC Director approval

Breaking History: Media Literacy in the Digital Age	1 Credits	Gr. 10, 11, 12	Course: 2703,
			2705, 2707

Using media coverage of domestic news and popular culture, students will analyze how society creates narratives and understands events as they unfold within the United States. This class will go beyond just identifying so-called "viral" topics, and dig deeper to understand the reasons why certain issues are "trending now". In addition, this course will examine how media's coverage of events can be used to influence public opinion. This class is highly recommended for students who wish to work backward from today to better understand the history behind breaking news. Students taking this course are strongly encouraged to also take Contemporary Global Studies.

Business Finance 1	1 Credit	Gr. 10, 11, 12	Course: 5391-5397	
Explore the principles and practices for the financial industry of the United States. Develop a strong foundation in banking,				
credit, investments, and insurance from the perspective of both consumer and industry specialists. Students understand and				
develop a good personal financial plan. This course, on its c	own or coupled	with Global Finance,	strengthens student	

*Note:* Meets ITC and Math Experience requirement. College credit may be available.

Business Law	1 Credit	Gr. 11, 12	Course: 2105-2107	
This course focuses on key areas of civil law with a special emphasis on areas impacting businesses. Lawsuits, contracts and				
torts are primary areas of study. Negligence law, product liability and types of business organizations are also addressed.				
Student activities may include individual research, writing contracts, case analysis, mock trials and guest speakers.				

*Note:* Meets ICT requirement. College credit may be available.

understanding of domestic financing opportunities.

Calculus	1 Credit	Gr. 11, 12	Course 3127

Students learn about the derivatives and integrals of polynomial, rational, trigonometric, logarithmic and exponential functions. The class may also study analysis of curves, solution of maximum and minimum problems and special methods of integration.

**Prerequisite:** Pre-Calculus. Students may take this course or AP Calculus but NOT both.

Careers in Education 1	2 Credits	Gr. 10, 11	Course: 5351-5357	
Are you interested in a career related to Early Childhood Education? Do you enjoy working with children? This course will				
introduce the basic knowledge needed to pursue a career in education, whether it is an early childhood learning center, an				
elementary school or other child-oriented institution. Learn how to set up a classroom environment and how to maintain the				
health, safety and nutrition of the children in your charge. You wil	l explore differei	nt philosophies in early	childhood education,	
familiarize yourself with children's literature, learn about behavior management and receive an introduction to curriculum				
and lesson planning. In addition, you will work in the Purple Panther Preschool and get hands-on experience with pre-school				
children between the ages of 3 and 4 years old.				

**Note:** College credit may be available. Course is offered at Nashua High South. North students must travel.

Careers in Education 2	2 Credits	Gr. 11, 12	Course 5361-5367	
Learn about the development of the 6-12 year old in a work study environment. Three days a week you will act as a teacher's				
aide at local elementary schools during regular class time. In addition to studying philosophies of early childhood education,				
you will explore numerous job possibilities that you will have in our changing society. This course is recommended for				
students seeking child related careers and positions as future educators.				

<u>Note</u>: Consistent attendance is required for students to successfully complete this program. College credit may be available. Course is offered at Nashua High South. North students must travel.

Prerequisite: Careers in Education 1, NTC Director approval.

Ceramics	1 Credit	Gr. 9, 10, 11, 12	Course: 6201
This class is designed for students who have an interest in working with clay, and gives students experiences in making			
functional as well as sculptural pieces. Students will explore the many processes of clay, from the simple handmade forms of			

early cultures to throwing on the potter's wheel and on the extremely varied application of clay in today's modern society. Well thought out forms, designs and functional uses, along with good craftsmanship are emphasized. Students will create many clay pieces, explore a variety of surface decoration techniques, and learn about firing in a kiln.

Note: Meets Math Experience requirement. For grade 9 meets Intro to High School Art

Challenges Facing Today's Teens	1 Credit	Gr. 11, 12	Course: 1055

Being a teenager has never been easy. This theme is often developed in literature. By reading about the experiences of other young people, one can better adjust to pressure of this age. Students read contemporary forms of fiction and analyze themes relevant to today's youth. Through active experiences, students develop literature and reading skills such as analyzing, critiquing and logical thinking. Through these exercises and others, students will enhance their writing and vocabulary skills.

Prerequisite: English 2

Chemistry	1 Credit	Gr. 10, 11, 12	Course: 4153-
			4155-5157

Students learn modern concepts of chemistry in the lab. They study nomenclature, equation and formula writing, physical and chemical properties, the mole concept, and energy relationships. Students develop lab skills such as mass measurements, analysis of data and samples, synthesis of compounds and model building.

# Note: Meets Math Experience requirement

**<u>Prerequisite</u>**: For Extension & Honors Level: Biology and either Geometry or Algebra 2. <u>Foundation level</u>: Biology and Algebra 1, Part 2

Child Growth & Development1 CreditGr. 10, 11, 12Course: 5151Covers the development of a child during pregnancy and from birth through age 6 including the physical, intellectual,<br/>emotional and social development of a child. It's true that "kids don't come with instructions," so students also explore the<br/>enormous responsibility of parenting, learning the skills necessary to raise a happy and healthy child. This course includes<br/>class discussions, individual and team projects and written assignments. This course will especially benefit those pursuing<br/>careers working with children such as Careers in Education and Health Science.Gourse: 5151

Chorale1 CreditGr. 9, 10, 11, 12Course: 6181Do you enjoy singing? Join a non-auditioned group that sings many different styles of music. Students will learn proper<br/>rehearsal procedures, correct singing techniques, choral blend and balance, music terminology and music reading skills.<br/>Chorale performs at least twice a year and students are expected to participate in all activities and have the opportunity to<br/>audition for any NHS extracurricular choir. Students will also have the opportunity to participate in the NH Solo & ensemble<br/>Festival and to audition for All State and Jazz All State Choruses with the choral director's permission.

**<u>Note</u>**: This is an A/B block class, which means that it will be combined with another class and offered every other day throughout the year and is worth one credit out of the credits students need to select for a full schedule. There is no audition requirement.

Civics	0.5 Credit	Gr. 10	Course: 2073- 2075-2077

This course gives students a fundamental understanding of how the US government operates. The roles of different branches of government, lawmaking and the principles of government, the formation of governments and the rights and responsibilities of citizens will all be stressed. Contemporary political and governmental issues will also be examined to illustrate the process of government.

*Note:* Required grade 10 course. Students must take this or AP Government to fulfill the requirement.

College Accounting 1	1 Credit	Gr. 9, 10, 11, 12	Course: 5027
Accounting is the language of business. Students utilize spreadsheet software to keep financial records, summarize data, and			
analyze information to provide assistance to management for decision-making. This course is essential for any student			
considering a major in accounting, management, marketing or fi	nance.		

**Note:** Meets ICT and Math Experience requirement.

This college level course uses computerized accounting systems to expand on the foundations of previous accounting courses with a focus on corporate accounting. This course is highly recommended for students who plan to major in accounting, finance, marketing, or business management.

*Note:* Meets ICT and Math Experience requirements.

**Prerequisite:** College Accounting 1 or Advanced Accounting Topics, NTC Director approval

College Ready Math	1 Credit	Gr. 12	Course: 3063
This is a senior math course focusing primarily on the algebra skills needed to enter the work force or community colleges.			
Students will be actively involved to develop competence in simplifying and evaluating polynomial and rational expressions			
as well as solving linear equations and inequalities, quadratic equations and systems of linear equations. Emphasis will be			
placed on critical thinking skills and problem solving along with t	he use of techno	ology.	

*Note:* Senior standing, Algebra, Geometry and/or permission of the Math Department.

Computer Aided Drafting & Design 1	2 Credits	Gr. 10, 11	Course: 5271-5277

Students design their own building or product using state-of-the-art Autodesk software applications. They learn how to use commands, capabilities and procedures to produce a professional, industry-standard drawing. After a general introduction to computer-aided design and drafting, they choose one of two self-paced tracks, Architectural/Civil drafting or Mechanical/Electrical drafting. In Architectural/Civil Drafting, students create floor plans, elevations and section views from their own designs and learn how to create all the plans required for a building permit. In Mechanical/Electrical Drafting, they create mechanical assembly designs of their own products and learn basic geometric tolerance, fits, manufacturing processes and electrical drafting. They also use computer-controlled machines to make products.

Note: Meets ICT and Math Experience requirement. Course is offered at Nashua High South. North students must travel.

Computer Aided Drafting & Design 2	2 Credits	Gr. 11, 12	Course: 5281-5287
Enhances student understanding of state-of-the-art Autodesk software applications. By continuing self-paced tracks in eithe			
Architectural/Civil drafting or Mechanical/Electrical drafting, stu	dents sharpen t	heir skills and expand	their own knowledge
of computer aided drafting and design. In Architectural/Civil Dra	fting, they explo	ore residential, comme	ercial and civil drafting
and work in groups to complete a design requirement and g	enerate profess	ional grade plans. In	Mechanical/Electrical
Drafting, they design mechanical and electrical systems and wor	k in groups to co	omplete a design requ	irement and generate
professional grade plans.			

<u>Note</u>: Meets ICT and Math Experience requirement. Course offered at Nashua High South. North students must travel. <u>Prerequisite</u>: CADD 1, NTC Director approval.

	Computer Integrated Manufacturing	1 Credit	Gr.10, 11, 12	Course: 5921-5927
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Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing while teaching students about manufacturing processes, product design, robotics and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

<u>Note</u>: Meets ICT and Math Experience requirement. Course offered at Nashua High South. North students must travel. <u>Prerequisite</u>: Algebra 1 or Algebra 1 Part 2.

Computer Networking & Cyber Security I	2 Credits	Gr. 10, 11	Course: 5561-5567
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This course explores a computer network design by learning about the OSI model and current industry standards. Students study network topologies and IP addressing along with router configurations and required networking components. Program approved as CISCO Academy.

**Note:** Meets ICT requirement. This course is offered at Nashua High South. North students must travel.

Computer Networking & Cyber Security 2	2 Credits	Gr. 11, 12	Course: 5571-5577	
This class builds on the knowledge from Computer Networking 1 by studying advanced router configuration, LAN switching				
theory, VLANS and VLAN trunking protocol, classless routing such as CIDR and VLSM, WAN theory, design and technology			esign and technology	
including PPP DDR ISDN and Frame Relay. Explores network administration and management, learning optical network				
fundamentals, understanding the theory and practice of virtual private networks (VPNs) and building strategies for network				
security, study wireless LANs and investigate alternate operating	g systems. Progra	am approved as CISCO	Academy.	

<u>Note</u>: Course offered at Nashua High South. North students must travel. <u>Prerequisite</u>: Computer Networking & Cyber Security 1, NTC Director approval.

Concert Choir1 CreditGr. 9, 10, 11, 12Course: 6197Join a vocally well-balanced chorus and tackle more challenging choral literature. Students will perform music ranging from<br/>Renaissance to contemporary European, American and world music, learning the historical backgrounds of composers and<br/>musical styles. Explore correct vocal techniques, music reading skills, small ensemble assessments, solo opportunities, choral<br/>diction, balance and blend. Concert Choir performs at school and civic functions as well as concerts and competitions.<br/>Students are required to participate in all activities and will have the opportunity to audition for any NHS extracurricular choir.<br/>Students will also have the opportunity to participate in the NH Solo; Ensemble Festival and to audition for All State Jazz All<br/>State Choruses with the choral director's permission.

<u>Note</u>: Concert Choir is a performance-based course and may be repeated for credit. This is an A/B block class, which means that it will be combined with another class and offered every other day throughout the year and is worth one credit of the credits you need to select for a full schedule.

**Prerequisite:** An individual audition by the choral director is required

Construction Technology 1	2 Credits	Gr. 11, 12	Course: 5291
The skills and knowledge learned in Construction Technology will	help students t	o develop a basis for a	wide range of careers

in the building industry, whether they are interested in the trades, construction design and planning or management. Students will learn the safe operation of hand and power tools, as well as how to read blueprints and understand construction with math principles. Their new skills in carpentry, siding and roofing.

Construction Technology 2	Gr. 12	2 Credits	Course: 5301-5307
Students continue to develop their skills and abilities in many a	areas of constru	ction. In addition to o	continuing to practice
their skills regarding electricity, siding and, roofing, they will	learn about an	d practice all other a	spects of new home
construction such as site preparation, cabinet installation, insu	lation, in stallio	n of windows and doc	ors, etc. Students will
continue to have opportunities to network within the building in	ndustry, particip	ate in the community	to network within the
building industry, participate in community construction pro-	jects and learn	about the many div	verse careers/training
opportunities available to them after graduation. OSHA IO certifi	ication available		

Students learn mathematical skills useful all through life; as workers and consumers, maintaining bank accounts, budgets, credit installment buying, taxes, insurance investments and home and automobile finances. A scientific calculator is recommended.

#### Prerequisite: Algebra 1 or Algebra 1 Part 2

Contemporary Issues in Science	1 Credit	Gr. 11, 12	Course: 4703-
			4705-4707

Contemporary Issues in Science examines the ways in which science contributes to the study of significant problems in the contemporary world, and can help individuals and society make informed decisions about these issues. This course will look at the history of contemporary scientific issues, and the ways in which these issues have changed over time. In addition students will examine the consequences of scientific discoveries, or ethical issues arising from their use, and how these issues cross national boundaries and cultural regions. Possible topics could include: energy, climate change, technology, genetics, stem cells, and other current topics in the news.

## Prerequisite: Physical Science, Biology.

Cosmetology 1	2 Credits	Gr. 11	Course: 5311
Gain foundation competencies in Cosmetology related to orient	ation, safety, lea	dership, personal dev	elopment, chemistry,
properties of the scalp and hair, draping, shampooing, rinsing	and conditioni	ng, removing unwant	ted hair, waving, wet
hairstyling, roller sets, manicures and pedicures and thermal ha	ir styling/blow d	rying. This a hands-or	n course with practice
and review in each area. Students will be tested individually on e	ach subject and	be required to pass a	practical assessment.
Licensing and uniform fees are required.			

<u>Note:</u> You can gain hours toward State cosmetology certification if you demonstrate competency in this course. Fees for this course cover a mannequin head, a uniform and application for state apprentice license. The total cost is approximately \$100.00. Students who have a financial hardship should contact their guidance counselor so that assistance can be provided. Course is offered at Nashua High North. South students must travel.

**Prerequisite:** Algebra and 9<sup>th</sup> or 10<sup>th</sup> grade Science.

Cosmetology 2	2 Credits	Gr. 12	Course: 5321
Learn how to apply makeup, do advance haircutting and do faci	als. Gain experi	ence and confidence u	ising mannequins and
by running the in-school salon. You will be invited to visit suppl	y companies, at	tend cosmetology sym	posia and learn from

by running the in-school salon. You will be invited to visit supply companies, attend cosmetology symposia and learn from guest speakers working in the industry. In addition, you will investigate postsecondary educational programs that would enhance your career opportunities.

<u>Note</u>: Students must pass a written test on safety practices before you are permitted to use the products and chemicals the coursework requires. Students can gain hours toward State cosmetology certification if competency is demonstrated in this course. Fees for this course cover a mannequin head, a uniform and application for State apprentice license and the cost is approximately \$100.00 Students who have a financial hardship should contact their guidance counselor so that assistance can be provided. Course is offered at Nashua High North. South students must travel.

**<u>Prerequisite</u>**: Cosmetology 1, NTC Director approval.

Crafts			1 Credit	Gr. 9, 10, 11, 12	Course: 6071	
		-				

You will learn a variety of handmade crafts in this class. Before you select this course you must understand that craftwork is a skill as well as a visual language and gain an appreciation that crafts provide a powerful means of self-expression. You will explore a variety of techniques using both natural and synthetic materials. These explorations may include greeting cards, batik, synthetic stained glass, soft sculpture, decorative painting, dream catchers and grapevine wreaths and more.

Creative Writing	1 Credit	Gr. 10, 11, 12	Course: 1463-1467
Explore your creativity in poetry and fiction and discover the pow	wer of imaginati	on. Evaluate professio	nal models which will
serve as springboards for your own writing. Students will keep	a journal and a	portfolio of their wor	k. Examples from this
portfolio will be used for reading, collaborative revision and asse	ssment. This is a	workshop process that	at requires students to
practice various writing techniques, work on drafts, share them w	with others and	evaluate critical feedba	ack. This will fine tune
the student's creating writing skills in prose and poetry.			

## Prerequisite: English 1

Crime & Justice in America	1 Credit	Gr. 11, 12	Course 2153

Every citizen today needs to be familiar with all aspects of our legal system to protect his or her rights. This course provides a comprehensive introduction to the workings of our legal system. Students learn about criminal law and contemporary legal issues and topics. Learning activities that include role playing, mock trials, debates, guest speakers and field trips familiarize the student with the perspectives of people with different roles in our justice system.

Culinary Arts 1	2 Credits	Gr. 10, 11	Course: 5331-5337

Prepares a student for a career in the food service industry. Students train in the basics of planning, purchasing and preparing food in quantity. Students learn cooking techniques and preparation, selection and use of utensils and equipment and safety and sanitation techniques involved in food preparation. The culinary program is certified through the American Culinary Federation. Demonstrating your skill, knowledge and professionalism in the food service industry gives you a competitive edge over other chefs.

**Note:** Meets Math Experience requirement. Students are required to provide their own uniform and black safety shoes. Fees for this course cover the purchase of chef coats, pants, aprons and a hat and total approximately \$120.00 Non-slip shoes are also required. Students who have a financial hardship should contact their guidance counselor so that assistance can be provided. Course is offered at Nashua High North. South students must travel.

Culinary Arts 2	2 Credits	Gr. 11, 12	Course: 5341-5347
Students study kitchen design and layout, food costs, inventory	management a	nd cost controls. They	learn how to plan for
and serve at banquets. They receive assistance during the year in	n making postsed	condary plans and/or c	btaining employment
in the food service industry. This assistance will continue after gr	aduation if need	ded.	

<u>Note</u>: Meets Math Experience requirement. Students are also required to pass the Serve Safe exam. Fees for this course cover the purchase of chef coats, pants, aprons and a hat and total approximately \$120.00. Non-slip shoes are also required. Students who have a financial hardship should contact their guidance counselor so that assistance can be provided. Course is offered at Nashua High North. South students must travel.

**<u>Prerequisite</u>**: Culinary Arts 1, NTC Director approval.

	Design & Visual Communications 1	2 Credits	Gr. 10, 11	Course: 5431-5437
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This year long course will introduce students to the basic elements of visual communication through lecture, demonstrations and hands-on applications in a state-of-the-art MAC lab. Students will focus on skill levels using Adobe software: Photoshop, Illustrator, and Design and Visual Communications 1 is for students interested in communications, critical thinking, production, problem-solving, and the team approach to a final project. Students should be prepared to work individually and within groups to produce clear and effective communication.

*Note:* Meets ICT requirement. Course is offered at Nashua High North. South students must travel.

Design & Visual Communications 2	2 Credits	Gr. 11, 12	Course: 5441-5447
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Students will continue to develop skills that lay the foundation for basic design, color theory and practical lab application. Students will explore, experiment and apply proper application of ideas through the design process in the state-of-the-art MAC lab. Print and project management, collaboration, peer review, design and redesign, research and communications are essential components emphasized during the second year. Students will expand their skills using Adobe Photoshop, Illustrator, and InDesign as well as other web and animation products offered in the Adobe suite of applications. Project activities focus on further developing thinkers that translate concept into digital communication formats,

<u>Note</u>: College credit may be available. Course is offered at Nashua High North. South students must travel. Meets Art requirement.

Prerequisite: Design & Visual Communications 1, NTC Director approval...

Desktop Publishing	1 Credit	Gr. 9, 10, 11, 12	Course: 5061-
			5067

Students create digital and print publications for business use by applying design principles. Students design logos and learn proper layout for advertisements, newsletters, brochures, flyers, and other business forms.

#### *Note:* Meets ICT requirement. College credit may be available.

tech tools to assist in your home, school, and after work life.

Digital Life	.05 Credit	Gr. 9, 10, 11, 12	Course: 5011
So you think you know all the internet has to offer? Think againThis course will take your online skills to the next level so			
you can take full advantage of the multitude of tools that are ri	ght at your finge	ertips. You will explore	and use up-to-date

*Note:* Meets ICT requirement.

Discovering Computer Science	1 Credits	Gr. 9, 10, 11, 12	Course: 3361
This course provides a bread introduction to computer science	focusing on the	fundamental concente	of computer science

This course provides a broad introduction to computer science, focusing on the fundamental concepts of computer science, rather than a specific programming language. The goal of this course is to develop the computational thinking skills of problem solving and computing through the exploration and study of a wide range of computer science topics: the history of computer, interface design (human computer interaction), problem solving, algorithmic thinking, social and ethical computing considerations regarding the internet, web design, and programming.

<u>Note</u>: Meets ICT and Math Experience requirement. <u>Prerequisite</u>: Algebra 1, Part 2 or taking Algebra 1, Part 2 concurrently

Discrete Math	1 Credit	Gr. 11, 12	Course: 3205
			•

This course will answer the never ending question "when am I ever going to use math?" Students will explore the groundbreaking use of mathematics in the social sciences and the management sciences. The mathematics will shed light on how groups make decisions, how elections are decided, how power can be measured, how conflicts are resolved in a fair way and finally, how data is collected, summarized and interpreted. Students learn how management science uses circuits, trees, directed graphs and critical paths to solve problem involving the organization and management of complex activities. They also delve into population growth and the geometry of natural shapes.

#### Prerequisite: Algebra 2

Diversity in America	1 Credit	Gr. 10, 11, 12	Course: 2361	
Diversity in America is focused on introducing students to widely varying perspectives and experiences in life in America, bot				
past and present. Specifically, the course will deal with the American experience through the lens of race, class, gender, and				
sexual orientation. Finally, the course will seek to explore the extent to which the promise of America has been applied to				
different demographic groups.				

Drama	1 Credit	Gr. 9, 10, 11, 12	Course: 1515-1517
Drama production brings the artistic creation of a playwright to l	ife. Production o	an open up a fascinati	ng world in which you

may find an opportunity to exercise your self-expression and creativity. Production of a play is the major objective for this course. Students will have to assume various responsibilities including performance, set design, lighting, sound and publicity.

<u>Note</u>: This course meets the requirement for both English and Arts Education. Students must declare whether they are taking this course for English credit or Arts Education credit. Drama is a performance-based course and may be repeated for credit. More than one credit will count as an elective course.

Prerequisite: English 1

Drawing	0.5 Credit	Gr. 9, 10, 11, 12	Course: 6011	
Students in this course will gain the basic skills to create drawings that are both accurate and expressive. Students will gain				
confidence in their own vision and their ability to draw what they see. They will develop visual competence and expertise of				
skills in two-dimensional art including contour drawing, perspective, value, and color. Students can take this exploratory				
quarter course to earn a 1/2 credit requirement in the arts for graduation or to use as a prerequisite for sequential offerings				
of Advanced Drawing and beyond.				

Drone Technology	1 Credit	Gr. 10, 11, 12	Course: 5241
This course will introduce students to the career paths and the multitude of uses for drones. Students will engage in hands-			
on problem-solving activities with a team approach. They will focus on careers, flight planning missions, coding, and testing			
drones. Students will gain an understanding of safety, flight rules	s, flight training,	maintenance, and oth	er areas that students

#### *Note:* Meets ICT requirement

will need to know to prepare for the FAA 107 test.

Economics	0.5 Credit	Gr. 10	Course: 2063-
			2065-2067

This course examines the US free enterprise system and how it answers questions on the production and distribution of goods and services for our society. Basic economic concepts and an introduction to business, investment and personal finance decisions will also be examined. The course also includes a career research component.

<u>Note</u>: Required grade 10 course. Students must take this or AP Macro/Micro Economics to fulfill the requirement. Meets Math Experience requirement

Electrical Technology 12 CreditsGr. 10, 11Course: 5371
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This course is designed to teach the skills required to become an apprentice electrician. In this program, students learn to install electrical equipment for lighting, heating and power applications in commercial and residential buildings according to the National Electric Code.

**Note:** Meets Math Experience requirement. Course is offered at Nashua High South. North students must travel.

Electrical Technology 2	2 Credits	Gr. 11, 12	Course: 5381
In this course, students further study residential wiring and the I	National Electric	al Code. Topics covere	ed include commercial

wiring applications such as motor control, conduit bending and fire alarm systems. Students who successfully complete two years of Electrical Technology training receive 144 hours of credit toward an apprentice license.

<u>Note</u>: Meets Math Experience requirement. Course is offered at Nashua High South. North students must travel. <u>Prerequisite</u>: Electrical Technology 1, NTC Director approval.

Electricity/Electronics	0.5 Credit	Gr. 9, 10, 11	Course: 5751
Students explore the fields of electrical in-home repair, building	construction ar	nd maintenance relate	diobs Making use of

Students explore the fields of electrical in-home repair, building construction and maintenance related jobs. Making use of hands-on-projects, students study the laws governing the construction of electrical circuits in residential and mechanical facilities. Students review the basic rules of electricity as they relate to current, voltage and resistance in experimental circuits. Students explore further using semiconductors and solid state devices and soldering of components onto printed circuit boards.

ELL Level 1	4 Credits	Gr. 9, 10, 11, 12	Course:
			9011 w/9021
			9031 w/9041

ELL Level 1 introduces the non-native English learner to the English language through the receptive skills of listening and reading and the productive skills of speaking and writing. The course is divided into two strands: Strand A and Strand B. Strand A's primary focus is on reading and writing, while Strand B's primary focus is grammar. The four language domains are introduced, scaffolded, reinforced and developed in each strand. In January of the ELL Level 1 course, all students will take the WIDA ACCESS for ELLs Language Proficiency Test, whose results along with student performance throughout the year, will determine level placement for the following academic year.

**<u>Note</u>**: In accordance with Federal requirements, to exit direct ELL instruction, students must achieve a passing grade on the WIDA ACCESS test for ELLs. Students who pass their English Language Proficiency exam will be monitored for a period of two years to ensure academic success.

ELL Level 2	2 Credits	Gr. 9, 10, 11, 12	Course: 9101, 9121		
ELL Level 2 builds on the skills learned in Level 1, although newcomers may be placed into ELL Level 2 if their performance on					
the WIDA ACCESS Placement Test determines it. ELL Level 2 is a grammar-based course that contextualizes learned grammar					
through a variety of reading and writing units specifically designed to help students use, apply and analyze the English					
language. Students develop the basic grammar, vocabulary and language skills needed to continue learning the English					
language. In January of the ELL Level 2 course, all students will take the WIDA ACCESS for ELLs Language Proficiency Test,					
whose results along with student performance throughout th	e year, will de	termine level placem	ent for the following		
academic year.					

**<u>Note</u>**: In accordance with Federal requirements, to exit direct ELL instruction, students must achieve a passing grade on the WIDA ACCESS test for ELLs. Students who pass their English Language Proficiency exam will be monitored for a period of two years to ensure academic success.

ELL Level 3	2 Credits	Gr. 9, 10, 11, 12	Course: 9055, 9057	
ELL Level 3 builds on the skills learned in Level 2, although newcomers may be placed into ELL Level 3 if their performance on				

the WIDA ACCESS Placement Test determines it, ELL Level 3 is a grammar-based course that develops students' academic language of reading and writing through grammar instruction and its application to reading and writing. In Semester 1, students examine increasingly complex sentence and paragraph level sequencing structures. By Semester 2, students use these structures to start the essay writing process. In January of the ELL Level 3 course, all students will take the WIDA ACCESS for ELLs Language Proficiency Test, whose results along with student performance throughout the year, will determine level placement for the following academic year.

**Note:** In accordance with Federal requirements, to exit direct ELL instruction, students must achieve a passing grade on the WIDA ACCESS test for ELLs. Students who pass their English Language Proficiency exam will be monitored for a period of two years to ensure academic success.

ELL Level 4	2 Credits	Gr. 9, 10, 11, 12	Course: 9105, 9107		
ELL Level 4 builds on the skills learned in Level 3 although newcomers may be placed into ELL Level 4 if their performance on					
the WIDA ACCESS Placement Test determines it. ELL Level 4 is a pivotal course in the teaching of the perfect tenses and past					
participles to students. Through this course, students will develop their knowledge, understanding and application of the					
perfect tenses and their role in enhancing the understanding of chronology in English. Likewise, students start to analyze both					
literary and informational texts and develop knowledge of the different styles of essay writing required of a high school					
student. In January of the ELL Level 3 course, all students will take	the WIDA ACCE	SS for ELLs Language Pi	roficiency Test, whose		
results along with student performance throughout the year, will	determine leve	l placement for the foll	owing academic year.		

<u>Note</u>: In accordance with Federal requirements, to exit direct ELL instruction, students must achieve a passing grade on the WIDA ACCESS test for ELLs. Students who pass their English Language Proficiency exam will be monitored for a period of two years to ensure academic success.

ELL Level 5	2 Credits	Gr. 9, 10, 11, 12	Course: 9255, 9257
FUL evel 5 builds upon the lunguiledes convinced in 5UL evel 4.5U		waxaa a kaaa daa ay waa iy	مسمما مغميما منعد مامت

ELL Level 5 builds upon the knowledge acquired in ELL Level 4. ELL Level 5 is a grammar-based course in which students learn more challenging grammatical and academic language structures and focus on error correction in the four language domains. Students develop their essay writing skills by focusing on paragraph and essay level structures and study different types of essay writing from narrative to persuasive, to writing a research project. Likewise, students study different reading genres and produce written responses to literature, examining literacy techniques and informational text amongst others. Likewise students study different reading genres and informational text amongst others. In January of the ELL Level 3 course, all students will take the WIDA ACCESS for ELLs Language Proficiency Test, whose results along with student performance throughout the year, will determine level placement for the following academic year.

<u>Note</u>: In accordance with Federal requirements, to exit direct ELL instruction, students must achieve a passing grade on the WIDA ACCESS test for ELLs. Students who pass their English Language Proficiency exam will be monitored for a period of two years to ensure academic success.

ELL Level 6			2 0	credits	Gr. 9, 10, 11, 12	Course: 9	365, 9367

ELL Level 6 builds upon and reinforces the knowledge gained in ELL Level 4 and Level 5. It is a grammar-base course whose primary role is to teach and reinforce correct use of complex grammatical structures. Students will study a selection of novels from contemporary literature, American literature, British literature and poetry and will know, use and analyze the use of literary devices to respond to literary and informational texts. In writing, students will use the writing process to produce detailed multiple paragraph essays that use compound complex sentences to add detail and enhance meaning for the reader. . In January of the ELL Level 3 course, all students will take the WIDA ACCESS for ELLs Language Proficiency Test, whose results along with student performance throughout the year, will determine level placement for the following academic year.

<u>Note</u>: In accordance with Federal requirements, to exit direct ELL instruction, students must achieve a passing grade on the WIDA ACCESS test for ELLs. Students who pass their English Language Proficiency exam will be monitored for a period of two years to ensure academic success.

ELL Literacy	1 credit	Gr. 9, 10, 11, 12	Course: 9003
Introduces and reinforces basic language skills in the four language	age domains; (lis	stening, speaking, read	ding, and writing) that

students need to become more proficient and academically successful. Students work in reading skills such as decoding, phonemic awareness, comprehension, and fluency. This course is designed for students who may need more explicit and direct English instruction than traditional beginner ELL 1 students.

**Note:** Teacher recommendation required.

ELL Math	1 credit	Gr. 9, 10, 11, 12	Course: 3301		
This course is designed to expose ELL Level 1 and 2 students to a wide range of mathematical language, vocabulary, and skills					

so that they will be ready for an entry level math course. Problem solving and critical thinking skills, along with the syntactic language needed to decipher word problems will be emphasized and reinforced throughout the course as the student becomes actively involved in the learning of math. Use of data to analyze real word problems will build background knowledge and connect the curriculum to the students' prior experiences.

*Note:* Fulfills math elective.

ELL Math 2	1 Credit	Gr. 9, 10, 11, 12	Course: 3302		
ELL Math 2 continues the process started in ELL Math. Students will continue to build math vocabulary and math skills in					
preparation for entering main stream math classes. Students will learn the vocabulary of Geometry that main stream					
students learn prior to high school. Students will continue to build number sense and vocabulary to include integers, the					
operation of division, addition, subtraction, and multiplication. Students will expand their algebraic understanding to include					
the idea of variables, graphing, and solving one and two step equations. Upon successful completion of the course students					
will proceed to the appropriate level of main stream math inst	ruction. This ca	n include, but is not	limited to, math skills		
review, pre-algebra, or Algebra 1, Part 1.					

Prerequisite: ELL Math.

ELL Physical Science	1 Credit	Gr. 9, 10, 11,12	Course: 4003, 4005			
This course is designed as an introduction to the major concepts in chemistry and physics. The course includes concepts such						
as structure of atoms, periodic table principles, motion, forces, conservation of matter and energy, gravity and behavior of						
waves. These concepts are investigated through the laboratory experiences designed to promote and develop appropriate						
skills in science inquiry. Course instruction will focus on developing academic English while differentiating to meet the						
academic and linguistic needs of ELL.						

ELL Science	1 Credit	Gr. 9, 10, 11, 12	Course: 4801

ELL Science will introduce the major concepts in chemistry, physics, and biology. Investigation and experimentation require particular discourse patterns that ELLs need to be taught in order to be successful. These include language that is connected to relationships, causation, cause-effect, conditionals if...then, and frequent use of the passive tense. This course will teach the syntactic clues an ELL student needs to use when trying to decipher a sentence in the sciences. Concepts will be investigated through laboratory experiences designed to promote and develop appropriate listening, speaking, reading, and writing skills necessary for science inquiry success. Intended for ELL Level 1 and 2 students.

ELL World Studies	1 Credit	Gr. 9, 10, 11, 12	Course: 2011

World Studies builds upon the native English speakers' middle school social studies courses and helps to lay the foundation for US History in 11<sup>th</sup> grade. ELL World Studies will introduce non-native English speakers to the language of social studies and prepare them for entry into mainstream social studies classes. Beginning with the Enlightenment, ELL World Studies will explore the themes of revolution, economic development and world conflict throughout history. Students will use a variety of primary and secondary source materials to critically analyze the social, political, technological and economic develops that have shaped recent history. Particular focus will be given to the language of social studies with regard to tense, and aspect of historical events.

Engineering Design & Development	1 Credit	Gr. 10, 11, 12	Course: 5941-5947		
The knowledge and skills students acquire through the various engineering and STEM courses come together in this course					
as they identify an issue and then research, design and test a solution, ultimately presenting their solution to a panel of					
engineers. Students apply the professional skills they have developed to document a design process to standards. Completing					
EDD prepares students for various post-secondary programs and entry level work.					

<u>Note</u>: Meets Math Experience requirement. This course is offered at Nashua High South. North students must travel. <u>Prerequisite</u>: Introduction to Engineering Design and Principles of Engineering.

English 1	1 Credit	Gr. 9	Course: 1013-
			1015-1017

Develop your reading, writing, speaking, listening and research skills as you explore short stories, poetry, drama, non-fiction and novels by classical and modern writers. You will enhance these skills through research assignments and projects. Research skills are an essential component of this course.

Note: Required Grade 9 course.

English 2	1 Credit	Gr. 10	Course: 1023-
			1025-1027

Continue to develop your reading, writing, speaking, listening and viewing skills through grammar, vocabulary and writing exercises. Explore the short story, poetry, drama, the essay and the novel. Read anthology-based world literature selections written by classical and modern writers. Students will also critically read classic novels and plays selected from works taught regularly within this course. Students will focus on creating effective communication through oral and written expression. At the honors and extension level, students will write a formal research paper; at the foundation level, students will complete a research report. Students are expected to maintain a writing portfolio that contains various expository and creative pieces as well as the results of career research.

<u>Note:</u> Required grade 10 course. <u>Prerequisite:</u> English 1

English 3	1 Credit	Gr. 11	Course: 1033-
			1035-1037

Students study American literature and the core documents of this nation. They also read one Shakespearean play. Students should be prepared to read additional works outside of school and report on that reading. They should improve grammar, usage, syntax and vocabulary by completing a variety of writing assignments. Speaking, listening and viewing skills will be strengthened through class activities.

<u>Note</u>: Honors and Extension students must write a formal research paper that follows the Modern Language Association Handbook guidelines. Foundation students must complete a research project using MLA citation of sources. Required grade 11 course or AP English Language Composition 1.

Prerequisite: English 2

English 4	1 Credit	Gr. 12	Course: 1043-
			1045-1047

Students study challenging literary works drawn mostly from classic and modern British literature. Students read additional works and report on those readings. This rigorous writing curriculum focuses on literary analysis and expository writing. Foundation students read less complex works while also improving their grammar, writing, speaking, research, listening and viewing skills

# Prerequisite: English 3

Environmental Science	1 Credit	Gr. 10, 11, 12	Course: 4253-
			4525-4527

Students engage with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world through inquiry-based investigations. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems and examine alternative solutions for resolving or preventing them. Science is interdisciplinary, embracing topics from earth science, biology, chemistry and geography.

# Prerequisite: Biology.

Exploring Contemporary Cooking	1 Credit	Gr. 10, 11, 12	Course: 5161
Eveloping Contemporary Conting in designed to help students develop their sulinew skills while becoming success of sultwale			

Exploring Contemporary Cooking is designed to help students develop their culinary skills while becoming aware of cultural, social and psychological influences in food choices. Students will consider factors that impact the safety of foods and demonstrate their ability to be safe and sanitary with food handling. Students will discuss common foods eaten in the United States that originated in other countries and demonstrate their ability to select, store, prepare and serve a variety of these foods. Previous food handling and preparation is strongly recommended.

Note: Meets Math Experience requirement.

Fantasy & Science Fiction	1 Credit	Gr. 11, 12	Course: 1103-1107		
Students study the works of contemporary science fiction writers. They examine themes such as warfare (human combat and					
biological), utopias and the apocalypse. Students explore these concepts by reading the literature, watching film adaptions					
and participating in class discussions. Students develop their own points of view through extensive expository and creative					
writing.					

Prerequisite: English 3

Film Studies	1 Credit	Gr. 9, 10, 11, 12	Course: 1615-1617
Presents a literary look at great American films through the study	of hallmark film	s of the 20 <sup>th</sup> century ci	nema such as Modern

Presents a literary look at great American films through the study of hallmark films of the 20<sup>th</sup> century cinema such as Modern Times, Citizen Kate, Casablanca, Rebel Without a Cause, Dr. Strangelove and Star Wars. Students critically view, discuss and write about these great films.

## Prerequisite: English 1

Financial Services Internship	1 Credit	Gr. 11, 12	Course: 5401	
This course will include the basic principles and practices of credit unions and the financial industry. Students will be exposed				
to accounting, technology, cash handling, customer service skill	s, clerical and ba	ack office tasks, as the	y develop confidence	
under the guidance of a credit union professional. Coursewor	k includes comp	prehensive financial lit	eracy education on a	
variety of topics such as debit/credit cards, insurance, taxes, cred	lit, credit reports	s, budgeting and more.	In addition, students	
will utilize an online simulator designed to help them understand	the relationship	between decisions abo	out money and quality	
of life. Upon completion of the course students will have a solid understanding of financial concepts, and will possess				
employable skills including cash handling, customer service stan	dards, organizat	tion and teamwork. T	his authentic learning	
permits the student to explore hands-on, real-life situations and	problems solvin	g coupled with indepe	ndent practice.	

## Note: Meets ICT and Math Experience requirement

Fit for Life	0.5 Credit	Gr. 10	Course: 7021	
Students in this class assess their fitness level and set personal goals. Students will study and participate in a variety of physical				
activities that enhance muscular strength and power, cardiovascular and muscular endurance and increase flexibility.				

# **Note:** Taken with Health 1

**Prerequisite:** Sport Education

Foods Technology	1 Credit	Gr. 9, 10, 11	Course: 5171
Learn the basic principles of nutrition, food preparation, meal p	lanning and table	e service. Use new and	l different methods of

Learn the basic principles of nutrition, food preparation, meal planning and table service. Use new and different methods of meal planning and preparation, approximately twice a week, lab experiences will give students practice in meal preparation techniques while you eat healthy foods and enhance your cooking skills.

#### Note: Meets Math Experience requirement

Forensic Science	1 Credit	Gr. 11, 12	Course: 4603-
			4605-4607

The students in this course are taught the fundamentals of a criminal investigation. They learn by doing; they process crime scenes, analyze lab data and conduct scientific investigations, interact with guest speakers, employers, the internet, and become familiar with various texts. Students use technology to participate in activities that closely resemble those used by law enforcement personnel and forensic scientists.

# Prerequisite: Chemistry

French 1	1 Credit	Gr. 9, 10, 11, 12	Course: 8117		
Bienvenue! Open the door to new opportunities for travel, work and study. Soon your world will change as you learn a new					
language and different culture. You will be able to communicate in French with a focus on your daily life at school, home and					
with friends.					

French 2	1 Credit	Gr. 9, 10, 11, 12	Course: 8217
Go beyond the basics in this exciting course that explores housing	, the community	, health/wellness and	tourism in the French

Go beyond the basics in this exciting course that explores housing, the community, health/wellness and tourism in the Frenchspeaking world. Gain confidence through authentic learning tasks and creative situational problem-solving.

#### Prerequisite: French 1

French 3	1 Credits	Gr. 9, 10, 11, 12	Course: 8317		
Where have you been? What did you do? Using target language, explore past excursions and experience virtual travel to					
"target language" locations. On your way, you will go shopping, check out the latest fashions, go out to eat, and experience					
local traditions, customs, and celebrations.					

#### Prerequisite: French 2

French 4	1 Credits	Gr. 9, 10, 11, 12	Course: 8417
Immerse yourself in the diverse cultures of the French world thr	ough exposure t	to authentic music, lite	erature, films, art, and

more. You'll learn to communicate effectively in a variety of social settings and situations through dynamic activities.

#### Prerequisite: French 3

French 5	1 Credits	Gr. 9, 10, 11, 12	Course: 8517		
Refine your communication skills in French while exploring historical and contemporary contexts. The use of authent					
materials encourages cultural awareness as you deepen your understanding and appreciation of the various aspects of the					
cultures of the French-speaking world. Enjoy engaging activities such as reading fables, watching films, listening to music,					
and discussing current events.					

#### Prerequisite: French 4

Freshman Writing	1 Credit	Gr. 9	Course: 1011
This compostor long freehman writing course will require students	s to mastar the f	undamontal writing cl	ville nocossany for high

This semester-long freshman writing course will require students to master the fundamental writing skills necessary for high school success across all content areas. The course features writing in response to informational text, narrative writing, argumentative writing and writing to learn. Students will learn and use the writing process.

*Note:* This is a required grade 9 course.

General Algebra 1 Part 1	1 Credits	Gr. 9, 10, 11, 12	Course: 9373

This semester long course will build a strong foundation necessary to succeed in the future math courses. Concepts and topics are developed around study of the real number system; understanding slope and its applications to linear systems and inequalities: the representation of functions through tables, graphs and equations. Learning the fundamentals will be accomplished through application of algebraic techniques to real world scenarios. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**Prerequisite:** Case manager/Special Education teacher recommendation.

General Algebra 1 Part 2	1 Credits	Gr. 9, 10, 11, 12	Course: 9383			
This semester long course will build a strong foundation necessary to succeed in the future math courses. The course will						
build on materials covered in Algebra 1 Part 1, expanding from linear concepts to polynomials. Concepts and topics are						
developed around becoming fluent with polynomials and their relation to operations; factoring: accomplished through						
application of algebraic techniques to real world scenarios. Per the IEP, the classroom teacher has the discretion to adapt the						
curriculum based on individual student needs.						

**Prerequisite:** Algebra 1 Part 1 and Case manager/Special Education teacher recommendation.

	10, 11, 12 Course: 9483
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This course gives students a fundamental understanding of how the U.S. Government functions. The roles of different branches of government, lawmaking, the principles of government, the formation of governments and the rights and responsibilities of citizens will all be stressed. Contemporary political and governmental issues will also be examined to illustrate the process of government. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**Prerequisite:** Case manager/Special Education teacher recommendation.

General Econ	nomics		0.5 Credit	Gr. 10, 11, 12	Course: 9473

This course examines the US free enterprise system and how it answers questions on the production and distribution of goods and services for our society. Basic economic concepts and an introduction to business, investment and personal finance decisions will also be examined. The course also includes a career research component. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

Note: Required grade 10 course. Students must take this or AP Macro/Micro Economics to fulfill the requirement.

General English 1	1 Credit	Gr. 9	Course: 9183		
The instruction of this course focuses on the acquisition and practice of proper grammar and usage and the mechanics o					
writing. Students work on a variety of writing projects from formal essays to real world pieces such as resumes, cover letters					
and job applications. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student					
needs.					

**Prerequisite:** Case manager/Special Education teacher recommendation.

General English 2	1 Credit	Gr. 10	Course: 9213
Continue to develop your reading writing speaking listening a	الناء ممنينية مارتا	a through grommar ,	acchulant and writing

Continue to develop your reading, writing, speaking, listening and viewing skills through grammar, vocabulary and writing exercises. Explore the short story, poetry, drama, the essay and the novel. Read anthology-based world literature selections written by classical and modern writers. Students will also critically read classic novels and plays selected from works taught regularly within this course. Students will focus on creating effective communication through oral and written expression. At the honors and extension level, students will complete a research report. Students are expected to maintain a writing portfolio that contains various expository and creative pieces as well as the results of career research. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**Prerequisite:** Case manager/Special Education teacher recommendation.

General English 3	1 Credit	Gr. 11	Course: 9203	
Students study American literature and the core documents of this nation. They also read one Shakespearean play. Students				
should be prepared to read additional works outside of school and report on that reading. They should improve grammar,				
usage, syntax and vocabulary by completing a variety of writing assignments. Through class activities and exercises, speaking,				
listening and viewing skills will be strengthened.				

<u>Note:</u> Honors and Extension students must write a formal research paper that follows the Modern Language Association Handbook guidelines. Foundation students must complete a research project using MLA citation of sources. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs. <u>Prerequisite:</u> Case manager/Special Education teacher recommendation.

	General English 4	1 Credit	Gr. 12	Course: 9223
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Students study challenging literary works drawn mostly from classic and modern British literature. They read additional works and report on those reading. This rigorous writing curriculum focuses on literary analysis and expository writing. Foundation students read less complex works while also improving their grammar, writing, speaking, research, listening and viewing skills. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**<u>Prerequisite</u>**: Case manager/Special Education teacher recommendation.

General Geometry	1 Credit	Gr. 9, 10, 11, 12	Course: 9433		
Students discover mathematics as a deductive science by studying plane, solid and transformational geometry. Students learn					
the relations of equality and inequality, triangle relationships, p	perpendicular ar	nd parallel lines, quad	rilaterals, congruency		
and similarity, constructions with a compass and a straight edge, ration and proportion, areas and volumes, trigonometric					
rations, relationships between angles, arcs, and line segments related to circles and spheres and the concept of proof. Per					
the IEP, the classroom teacher has the discretion to adapt the cu	the IEP, the classroom teacher has the discretion to adapt the curriculum based on individualized student needs.				

## *Note:* Fulfills math elective requirement.

Prerequisite: General Algebra 1 (9363) or Algebra 1 Part 2.

General Health	1 Credit	Gr. 10, 11, 12	Course: 9303
Students are involved in the concept of wellness. Topics cove	red include: str	ess management, ma	intaining mental and
emotional health, balanced nutrition and avoidance of drugs, alo	cohol and tobace	co, along with sexualit	y education. Students
examine these topics through readings, discussions, group project	cts, video preser	ntations and internet r	esearch.

**<u>Prerequisite</u>**: Case manager/Special Education teacher recommendation.

General Math	1 Credit	Gr. 9, 10, 11, 12	Course: 9353	
Through real world applications and examples, students develop mathematical skills useful in the workplace. A review of				
basic mathematic operations is included along with topics such as problem solving, money, money management skills and				
related real world mathematical applications. Per the IEP, the classroom teacher has the discretion to adapt the curriculum				
based on individual student needs.				

**Prerequisite:** Case manager/Special Education teacher recommendation.

General Pre-Algebra	1 Credit	Gr. 9, 10, 11, 12	Course: 9343		
This course advances the student from eighth grade mathematics to pre-algebra. After reviewing basic operations, students					
learn about real numbers and their properties, mathematical modeling that requires equation writing and solving in context,					
data analysis and statistics and geometry and graphs. Per the IEP, the classroom teacher has the discretion to adapt the					
curriculum based on individual student needs.					

**Prerequisite:** Case manager/Special Education teacher recommendation.

General Science-Biological	1 Credit	Gr. 9, 10, 11, 12	Course: 9423
Biology is an introductory life science course. Students cultiv	ate their under	standing of biology t	hrough inquiry-based
investigations as they explore the following topics: evolution, cel	llular processes,	DNA, genetics, ecolog	y, energy pathways in

plants and animals, and interactions between and among organisms. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**<u>Prerequisite</u>**: Case manager/Special Education teacher recommendation.

General Science-Physical	1 Credit	Gr. 9, 10, 11, 12	Course: 9413	
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This course is designed as an introduction to the major concepts in chemistry and physics. The course includes concepts such as structure of atoms, periodic tables, principles, motion, forces, conservation of matter and energy, gravity and the behavior of waves. These concepts are investigated through laboratory experiences designed to promote and develop appropriate skills in science inquiry. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**<u>Prerequisite</u>**: Case manager/Special Education teacher recommendation.

General US History	1 Credit	Gr. 11, 12	Course: 9453
Investigate the social, political and economic ideas and movement	nts that have sh	aped modern America	n society. Emphasis is

on the 20<sup>th</sup> century, including topics such as social change, foreign policy and the development of the American culture and character. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**Prerequisite:** Case manager/Special Education teacher recommendation.

General World Studies	1 Credit	Gr. 9, 10, 11	Course: 9463

This course builds upon the middle school social studies courses and helps lay a foundation for US History in 11<sup>th</sup> grade. Beginning with the Enlightenment, World Studies explores the themes of revolution, economic development and world conflict throughout history. Students will use a variety of primary and secondary source materials to critically analyze the social, political, technological and economic developments that have shaped recent history. Per the IEP, the classroom teacher has the discretion to adapt the curriculum based on individual student needs.

**<u>Prerequisite</u>**: Case manager/Special Education teacher recommendation.

			1
Geometry	1 Credit	Gr. 10, 11, 12	Course: 3033-
			3035-3037

Students discover mathematics as a deductive science by studying plane, solid and transformational geometry. They learn the relationships, perpendicular and parallel lines, quadrilaterals, congruency and similarity, construction with a compass and a straight edge, ratio and proportion, areas and volumes, trigonometric ratios, relationships between angles, arcs and line segments related to circles and spheres and the concept of proof.

**Prerequisite:** Algebra 1 or Algebra 1 Part 2

German 1	1 Credit	Gr. 9, 10, 11,12	Course: 8127
Willkommen! Open the door to new opportunities for travel, w	ork and study.	Soon vour world will	change as you learn a

new language and different cultures. You will be able to communicate in German with a focus on your daily life at school, home and with friends.

German 2	1 Credit	Gr. 9, 10, 11, 12	Course: 8227			
Go beyond the basics in this exciting course that explores housing, the community, health/wellness, and tourism in the						

Prerequisite: German 1

German speaking world.

German 3			1 Credit	Gr.	9, 10,	11, 12	<b>C</b> οι	ırse: 8327	

Where have you been? What did you do? Using the target language, explore past excursions and experience virtual travel to "target language" locations. On your way, you will go shopping, check out the latest fashions, go out to eat, and experience local traditions, customs, and celebrations.

## Prerequisite: German 2

German 4	1 Credits	Gr. 9, 10, 11, 12	Course: 8427			
Immerse yourself in the diverse culture of the world through exposure to authentic music, literature, films, art, and more.						
You'll learn to communicate effectively in a variety of social settings and situations through dynamic activities.						

## <u>Prerequisite:</u> German 3

Global Conflicts	1 Credits	Gr. 10, 11, 12	Course:
			2513,2515,2517
Our life in the United States is influenced by situations and con	untries all arour	nd the globe. To und	erstand wars, climate

change, disease, terrorism, and other problems a person needs to grasp life in many places far from the United States. Global Conflicts is designed to help students gain an understanding of major regions of the world and current international problems. Students may study issues and conflicts in India, China, Latin America, the Middle East, and Eastern Europe. Major geographic concepts, world religions, economic and government systems, map skills and human rights will all be addressed. As part of the course, students may participate in a Model United Nations simulation to understand and work to solve world problems as seen through the perspective of different nations.

<b>Global Finance</b>			1 Credits	Gr. 10, 11, 12	Course: 5411-5417

To provide a conceptual understanding of global financial strategies, and interest rates differentials: the institutional framework of foreign exchange markets and to enhance the topics of Business Finance to a global platform. This course, on its own or coupled with Business Finance will serve students well – to strengthen their understanding of global financing opportunities.

**<u>Note</u>**: Meets ICT and Math Experience requirement.

Global Literature	1 Credit	Gr. 10, 11, 12	Course: 1623- 1625-1627	
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This course will explore literature dealing with contemporary global issues, such as oppression in third world countries, the rising tide of fanaticism, and human rights. Students will read, analyze, interpret, discuss and synthesize information in a series of essays and projects.

# Prerequisite: English 2

Graphic Design 1	0.5 Credit	Gr. 9, 10, 11	Course: 5761			
Students gain a working knowledge of graphic design and all related components of the discipline. They learn industry specific						

Students gain a working knowledge of graphic design and all related components of the discipline. They learn industry specific computer software (Photoshop and Illustrator), creative thinking, advertising principles, basic drawing techniques, copy writing, market psychology, traditional design and layout, art history and printing. Students gain valuable insight into career options and preparation for higher education.

<u>Note</u>: This course meets the ICT graduation requirement and may be taken to fulfill the computer requirement or Art but NOT both. Meets Math Experience requirement

Students continue to explore their working knowledge of the graphic design field. Students will focus on skill levels using Quark Express, InDesign, Photoshop and Illustrator design software. Graphic Design 2 is for students interested in communications, critical thinking production, problem solving and the team approach to the final product. Students should be prepared to work individually and within groups to produce clear and effective communication. Students will search for career opportunities in the graphics field.

## Prerequisite: Graphic Design 1

**Note:** Meets Math Experience requirement.

Guitar Q/S0.5/1 CreditGr. 9, 10, 11, 12Course: 6131-6151If you are a beginning guitarist or have some basic skills, you can develop your reading and technical skills. You will perform<br/>regularly, both for and with the music faculty and the class.

*Note:* This course may be repeated for credit. A guitar will be provided for use in class.

Habits for Living	2 Credits	Gr. 9, 10, 11, 12	Course: 9501			
This full year course is designed for students with intensive social/communicative and self-regulation challenges to develop						
personal self-care skills. Skills are addressed on an individual basis and utilize intensive visual and communications supports.						
The use of structured real life scenarios, field trips and meaningful projects assist the students in generalizing information						
into the real world. This course also addresses student's self-regulation needs and abilities in preparation for more efficient						
interaction within the school community and the Greater Nashua Community.						

**Prerequisite:** Case manager/Special Education teacher recommendation.

Health 1	.5 Credit	Gr. 10	Course: 7031			
Students will explore effective decision-making strategies that enhance mental, social, emotional, and physical health.						
Students learn the importance of abstinence as it relates to tobacco, illegal drugs, alcohol and sexual activity. Through class						

Students learn the importance of abstinence as it relates to tobacco, illegal drugs, alcohol and sexual activity. Through class discussions, role playing, guest speaker presentation, and interactive technology, students gain knowledge on these topics and others including proper management of stress and relationships.

Health 2	0.5 Credit	Gr. 11, 12	Course: 7081

Students will study first aid and handling emergency situations. Instruction will be authentic and hands-on while students learn how to provide first aid and conduct CPR. Students will learn to respond to common emergencies including choking and treatment for poisonings. Students will have a certification option through required testing at the conclusion of the course. Additional topics will include non-communicable diseases and disabilities, cardiovascular diseases, cancer, asthma, diabetes as well as an overall look at individuals who have physical or mental challenges. Finally, students will learn what it means to be a health literate consumer, by examining choices, choosing community health services and managing consumer related problems such as health fraud and malpractice as they related to products and services.

Prerequisite: Health 1

Hea	lth Sc	iences 1	L			2 Credits	Gr. 11	Course: 5451-5457
			-					

Explore health occupations and careers through this overview of Anatomy and Physiology. Included in this class are labs, which solidify the information received in the theory portion of the class. This class also includes the study of medical terminology, career guidance and the opportunity to become CPR/First Aid certified.

<u>Note</u>: College credit may be available. Students will be required to purchase lab coats, a t-shirt, name tag pins, CPR certification cards that cost approximately \$40.00. Students who have a financial hardship should contact their guidance counselor so that assistance can be provided. Course is offered at Nashua High South. North students must travel. <u>Prerequisite</u>: Biology or Life Science

Health Sciences 2	3 Credits	Gr. 12	Course: 5461-5467	
Receive on-the-job clinical training that qualifies students to be candidates for the NH Licensed Nursing Assistant Exam (LNA).				
Students in the program are required to purchase LNA scrubs, name tag pins, a watch with a second hand, pay an LNA test				
fee, a state licensing fee, a criminal background check and a mandatory drug testing. These essentials cost approximately				
\$300.00. Students may speak with their teacher or guidance counselor in order to seek potential financial assistance for the				
required fees. Clinical rotation in other health care fields may be	e offered if empl	oyer sites are available	2.	

**Note:** Each section of Health Sciences 2 will include a second block either in the fall or spring in addition to the full year single block. All students must have up-to-date proof of immunizations (see instructor for complete list) on file before clinical visitations.

**Prerequisite:** Health Sciences 1, NTC Director approval and CPR & First Aid Certification.

Heating, Ventilation, Air Conditioning & Refrigeration 1	2 Credits	Gr. 10, 11	Course: 5511		
Students learn refrigeration fundamentals, electricity and controls; installing, operating, servicing and repairing both heating					
and air conditioning equipment through classroom demonstrations and laboratory experiments. They work on domestic and					
commercial refrigeration and window and central air conditioning equipment, including heat pumps and oil and gas systems.					
Students learn on modern equipment, including three phase electrical components. The demand for skilled technicians far					
exceeds the supply in this field.					

**Note:** Meets Math Experience requirement. Course is offered at Nashua High South. North students must travel.

Heating, Ventilation, Air Conditioning & Refrigeration 2	2 Credits	Gr. 11, 12	Course: 5521-5527		
Students learn to perform systems tests, troubleshoot and repair heating, air conditioning and refrigeration systems with					
state-of-the-art industry equipment on a variety of models and	makes of both i	residential and comme	ercial HVACR systems.		
They learn to use a variety of tools and instruments to perform t	ests for electrica	I pressure and burner	efficiency. Laboratory		
activities focus on refrigeration systems (component installation	and repair), pipe	e fitting, ventilation du	cting, air conditioning		
unit service and furnace and burner service. Individual safety c	odes pertaining	to each type of syste	m are addressed and		
adhered to during lab activities.					

<u>Note</u>: Meets Math Experience requirement. Course is offered at Nashua High South. North students must travel. <u>Prerequisite</u>: HVACR 1 and NTC Director approval.

	Human Relations	1 Credit	Gr. 10, 11, 12	Course: 5191-5197
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Learn how to have rewarding and successful relationships in school, at home and at work. This program will inspire students to develop necessary skills in communication, listening, conflict management and mediation. By using interactive learning methods, role playing and participating in challenging activities, the student strengthens and develops their skills, self-esteem and self-concept. This course would benefit students interested in the fields of psychology and sociology

Interior Design	1 Credit	Gr. 9,10,11, 12	Course: 5211	
Do you want to make the space you occupy your own? Learn the principles and elements of creating your individual living				
area, whether it's your dorm, apartment, room or house. Design and construct various decorating projects and a model of				
your own living space while learning about career opportunities in this field.				

#### *Note:* Meets ICT requirement.

Introduction to Business	0.5 Credit	Gr. 9, 10	Course: 5051	
Be introduced to the world of business. Explore real world day to day operations needs to run a small entrepreneurial				
business. Use simulation software to learn business start up tasks, pre-launch planning, and, day to day business				
operations including staffing, purchasing and payments, marketing and business finances.				

## **Note:** Meets ICT and Math Experience requirement.

Introduction to Engineering Design	1 Credit	Gr. 9, 10, 11,12	Course: 5551-5557	
Develop three dimensional solid models by working from sketching simple geometric shapes to applying the use of solid				
modeling software Autodesk Inventor. Students work within a	problem-solving	design process and lo	earn how it is used in	
industry to manufacture a product. They use Computer Aided Design System (CAD) to analyze and evaluate the product				
design. The techniques learned and equipment used is state-of-t	he-art and are c	urrently in use by eng	ineers throughout the	
United States.				

## <u>Note</u>: Meets ICT and Math Experience requirement. <u>Prerequisite</u>: Algebra 1 Part 2 or Algebra 1 (H)

Introduction to Psychology	1 Credit	Gr. 11, 12	Course: 2305-2307	
Students explore individual human behavior. They analyze the nature of intelligence, learning styles, personality theories,				
psychological testing and stress management. Learning activities include class discussions, films, small group research				
projects, experiments, readings and lectures. Since many current careers require the knowledge Psychology offers, students				
have the opportunity to gain valuable information useful in both college and employments. This course is highly				
recommended for students who are interested in learning about human behavior.				

*Note:* This course is recommended as a **prerequisite** to AP Psychology.

Jazz Improvisation & Literature	1 Credit	Gr. 10, 11, 12	Course: 6241	
Study, rehearse and perform the various styles and periods of Jazz, learning their basic elements and structures, as well as				
learn the theory and skills of improvisation. This course is open to all players of saxophone, trumpet, trombone, rhythm/lead				
guitar, string bass/bass, piano/keyboard and drums. Auditions may be necessary based on enrollment and instrumentation.				

Jewelry Making	0.5 Credit	Gr. 9, 10, 11, 12	Course: 6081	
Jewelry may include materials from beads to metals. Using a variety of jewelry supplies that including beads, wire, synthetic				
generations and non-traditional materials such as namer & clay, students will evolve a variety of ways to create necklaces				

gemstones and non-traditional materials such as paper & clay, students will explore a variety of ways to create necklaces, bracelets, earrings and other wearable art. No jewelry experience needed and open to all grades. This course fulfills the ½ credit required to graduate.

	Journalism	1 Credit	Gr. 11 12	Course: 1355-1357
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Explores the major areas of mass media: newspapers, magazines and television. This course is intended for students who like to write. The emphasis is on news writing for print and broadcast media. Students study ethics in the media and learn interviewing techniques. Exercises include editorial and feature writing, advertising and sports writing. Students also read, analyze and discuss newspapers and news magazines.

#### Prerequisite: English 2

Language Skills 1	1 Credit	Gr. 11	Course: 1065
The instruction of this course focuses on improvement of gramm	nar, usage, synta	ix and vocabulary by c	ompleting a variety of

writing assignments. Speaking and listening skills will be strengthened through class activities and exercises. Students will also explore short stories, poetry, non-fiction and novels by classical and modern writers.

<u>Note</u>: These classes may be taken in place of English 3 (Language Skills 1) and English 4 (Language Skills 2). <u>Prerequisite</u>: Case manager/Special Education teacher recommendation.

Language Skills 2	1 Credit	Gr. 12	Course: 1075
The instruction of this course focuses on the continuation and	d building of rea	ading, writing, speaki	ng and listening skills
through vocabulary, grammar and writing pieces. Students will a	also explore non	-fiction, short stories a	and poetry by classical

and modern writers.

<u>Note</u>: These classes may be taken in place of English 3 (Language Skills 1) and English 4 (Language Skills 2). <u>Prerequisite</u>: Case manager/Special Education teacher recommendation

Latin 1	1 Credit	Gr. 9, 10, 11, 12	Course: 8137
Learn about the city of Pompeii and follow the Caecilius family in the year before the eruption of Mt. Vesuvius. Discover			
Latin's connections to the English Language. Understand the history of daily life, Roman theatre, gladiators, and the elections			
in ancient Pompeii.			

Latin 2	1 Credit	Gr. 9, 10, 11, 12	Course: 8237
Explore the Roman Empire from the British frontier to Alexandria	a, Egypt by follo	wing the lives of Quint	tus and Salvius. Learn

about the Roman invasions of Britain by Julius Caesar and Claudius. Continue to develop Latin connections to your own language and culture.

#### Prerequisite: Latin 1

Latin 3	1 Credit	Gr. 9, 10, 11, 12	Course: 8337
Continue to explore the influence of the Romans on life in Great Britain, from religious practices to superior organization of			
Roman army. Learn about Agricola, the most famous Roman governor of Britain. Develop a more sophisticated grasp of Latin			

grammar. Follow Salvius' evil deeds and the mischief of two Roman soldiers in Britain.

#### Prerequisite: Latin 2

Latin 4	1 Credit	Gr. 9,10,11,12	Course: 8437
Rome! Explore the Eternal City and its lasting monuments. Und	erstand the hist	ory behind the story o	f Masada, philosophy
in the ancient world, and Roman architecture. Follow the ac	tions of Salvius	in upper class Roma	n society in Emperor
Domitian's court. Advance to reading authentic Latin prose and	poetry.		

Prerequisite: Latin 3

Law & Ethics1 CreditGr. 11, 12Course: 2207
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Explores the nature of law and the importance of ethics in our society. The course examines the purpose of law, the functioning of our criminal justice system and the responsibilities and ethical obligations of lawyers and police. Students discuss contemporary legal and ethical issues such as abortion, the death penalty, censorship and genetic engineering. Students also analyze important Supreme Court cases and personal ethical decision-making. This course is ideal for those with a genuine interest in law.

*Note:* Community service required.

Lifespan Nutrition	1 Credit	Gr. 11, 12	Course: 5181		
Learn the basics of various nutrients and their functions in the body. Promote good health and well-being. Students will gain					
practical experience in planning nutritious meals to satisfy their own eating habits and will make use of some lab experience.					
This course would benefit students in the Life Sciences, Health Sciences	This course would benefit students in the Life Sciences, Health Sciences, Careers in Education and Culinary Arts.				

Lifetime Activities 1	0.5 Credit	Gr. 11, 12	Course: 7051
Students learn about and participate in physical activities for lifelong enjoyment and wellness at any age. Activities will vary			
throughout the year depending on facilities and weather but may include archery, skating, weight training, team and			
individual sports. One offsite field trip will be included in this cou	irse.		

#### Prerequisite: Sports Education AND Fit for Life

Lifetime Activities 2	1 Credit	Gr. 11, 12	Course: 7061
This course is designed for students who enjoy a variety of ph	ysical activities	and wish to advance	their fitness training.
Students will study and participate in physical activities that pror	note a healthful	lifestyle. Activities wi	ll vary throughout the
year depending on facilities and weather, but will include stren	gth, endurance,	flexibility, and cardio	training. One offsite

field trip may be include in this course.

#### Prerequisite: Sports Education, Fit for Life, and Lifetime Activities 1

Literacy Center 1	2 Credits	Gr. 9, 10, 11, 12	Course: 9701
This class is designed to meet the needs of students who would benefit from a multisensory approach to the enhancement			
of phonemic awareness and basic phonics for decoding and enco	oding.		

Literacy Center 2	2 Credits	Gr. 9, 10, 11, 12	Course: 9751
This class benefits students who need reading strategies for im	nagining what th	ev are reading, read	ing textbooks, reading

literature and the application of higher order thinking skills to reading material.

#### **Prerequisite:** Teacher recommendation.

Marine Robotics	1 Credit	Gr. 9 10, 11, 12	Course: 5821
This source will introduce students to the world of rebeties. Stu	donte will on go go	in hands on problem	coluing activities with

This course will introduce students to the world of robotics. Students will engage in hands-on, problem-solving activities with a team approach to develop a working underwater robot. The objective of this course is to introduce the basic concepts in robotics, focusing on design, building and testing of mobile robots applying current state-of-the-art research and application. Students will gain an introductory understanding in Programming and Microprocessor technology. Course information will be tied to lab experiments as students work in teams to build and test underwater robots, culminating in an end-of-course robot contest.

<u>Note</u>: Meets Math Experience requirement. This course is offered at Nashua High North. South students must travel. <u>Prerequisite</u>: Algebra 1 or Algebra 1 Part 2.

Marketing for retail and Fashion	1 Credit	Gr. 10, 11, 12	Course: 5531-5537
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This introductory course helps students develop an extensive understanding of marketing concepts and theories that apply to retail and fashion business. Areas covered in this course include: the basics of marketing, target marketing and segmentation, retailing, merchandising, and related industries, promotion and marketing plans. *Note:* Meets ICT and Math experience requirement.

Marketing for Sports and Entertainment	1 Credits	Gr. 10, 11, 12	Course: 5121-5127
This introductory course helps students develop an extensive understanding of marketing concepts and theories that apply			
to sports, entertainment, and business. Areas covered in this co	ourse include: th	e basics of marketing,	target marketing and
segmentation, public image, the entertainment industry, en	ntertainment m	arketing, and legal is	sues for sports and
entertainment.			

*Note:* Meets ICT and Math Experience requirement. College credit may be available.

Marketing for Social Media	2 Credits	Gr. 11, 12	Course: 5541-5547
This source provides the foundation of social modia and digital r	markating Stud	lanta will laarn what a	acial madia markating

This course provides the foundation of social media and digital marketing. Students will learn what social media marketing entails, including the history and the different social media channels that exist. You'll learn how to select social media or digital channel that fits your needs, set goals and success metrics, and determine who your target audience is. In addition, this course will familiarize students with the principals of sales and marketing in a business to consumer space through operation of the school-based enterprise. This course will provide an understanding of sales function in retail environment, with topics including sales training, consumer service, merchandising, and the effective use of CRMs. The course will also provide students with an overview of managing retail businesses, with a focus on Product/Service Management, Distribution, Pricing and Selling.

## **<u>Note</u>**: Meets ICT and Math Experience requirement.

**Prerequisite**: Marketing for Retail and Fashion or Marketing for Sports and Entertainment, NTC Director Approval.

Metacognitive Skills Development1 CreditGr. 9, 10, 11, 12Course: 9211The course will focus on developing metacognitive skills in students of average intelligence who are going into the work force<br/>or who are college bounds. Metacognitive skills benefit students who need executive functioning strategies for planning,<br/>organizing, managing materials, time and space, initiation and self-monitoring. Students in the Metacognitive class review<br/>special education services primarily due to executive function deficits. Students will be taught to understand their personal<br/>learning style, to capitalize on their strengths, to develop effective study and organizational skills and to advocate<br/>appropriately for themselves. The focus is on fostering independence with students being part of the planning process and<br/>fading support as skills develop.

<u>Note</u>: this course is restricted and enrollment is open for students who are recommended and meet specific criteria by the case manager and Special Education teacher.

Military History	1 Credit	Gr. 10, 11, 12	Course: 2351
"Force is the ultimate argument and once it has been invoked, the only effective response is superior force." It can be argued			
that military conflict has been the most influential force in the development of society and the world, it has touched every			
aspect of life. Students learn how military conflict has developed and change throughout human history, as well as how it has			
affected our world today. Topics include the following: the origins of conflict, battle tactics and strategies, the development			
of weapons and technology, significant historical battles, in-depth	n analysis of vari	ous wars and a focus o	n modern-day military
force.			

*Note:* Does not count in weighted GPA.

Music Theory (H)	1 Credit	Gr. 10, 11, 12	Course: 6147

Improve your music reading skills, develop aural skills and study proper notation, music analysis and transpositions. Learn how to take rhythmic and melodic dictation, write scales and use key signatures and different meters. Acquire sight singing and basic piano keyboard skills. Students will be assessed on notation skills, aural skills and basic keyboard proficiency. This course should be of special interest if a student is considering a career in music.

*Note:* This course may fulfill a music credit or an ICT requirement but not both.

Musical Ensembles	1 Credit	Gr. 10, 11, 12	Course: 6351
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Students who are enrolled in Band, Jazz Improvisation & Literature, Concert Choir and Chorale should sign up to join this performance-based class and improve their techniques, music reading, ensemble skills and overall musicianship with individual and full ensemble rehearsal time. Students will perform at least twice annually and be assessed through performance in class at least bi-weekly. Students will be expected to participate in all activities.

**Prerequisite:** Teacher recommendation.

Mythology	1 Credit	Gr. 11, 12	Course: 1155-1157
Students read and examine the stories of Greek Roman Norse	Native Americ	an and other mytholo	gies to discover their

Students read and examine the stories of Greek, Roman, Norse, Native American and other mythologies to discover their origins, patterns and similarities. Students read Edith Hamilton's Mythology as well as other resources in this field. Students analyze ancient myths through discussion and writing and examine references to them found in art, literature, film and contemporary culture.

## Prerequisite: English 2

On Your Own	0.5 Credit	Gr. 11, 12	Course: 5201
Learn how to be more independent, whether you are pursuing your education, looking for job opportunities or just living on			
your own. As the cornerstone of their independence, students will learn personal finance, including banking, establishing and			
keeping good credit, budgeting and managing finances. Students will acquire skills and knowledge in the area of			
transportation, housing, furnishings, insurance, wardrobe and food and nutrition. Students will also learn more about good			
study habits, time management, goal setting and making good	decisions in or	der to make better e	ducational and career
choices.			

# Note: Meets Math Experience requirement.

Parenting	0.5 Credit	Gr. 10, 11, 12	Course: 5851
Kids don't come with instructions! This course will emphasize the enormous responsibility of parenting. The students will			
learn the various skills necessary in order to raise a happy and healthy child. Exploration of these issues will be accomplished			
through class discussion, various individual and team projects and written assignments. This course will especially benefit			
those pursuing careers in Careers in Education and Health Science	ce.		

Personal Finance	0.5 Credit	Gr. 10	Course: 5901
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Students learn the practical side of money management to prepare them to make sound financial decisions from their first job through retirement. This course informs students how choices directly impact future financial circumstances.

Note: Meets ICT and Math Experience requirement.

Personal Fitness 0.5 Credit Gr. 10	Course: 7041
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This course is designed for students to have the opportunity to improve their aerobic fitness, primarily through walking. The speed and distance walks are individualize to meet the student's ability, with an emphasis toward significant, personal improvement. Students will learn about the process of getting fit with an emphasis on correct walking form, and all the many benefits of walking as a lifelong activity.

## Prerequisite: Sports Education

Photography	1 Credit	Gr. 10, 11, 12	Course: 6301		
This course teaches the basic functions of a 35mm SLR (Single Lens Reflex) camera. Students take black and white photographs					
and use a darkroom to develop negatives and photographs. Students are also introduced to Adobe Photoshop and digital					
photography techniques and technologies, including scanning images and working with color formats. Instruction is balanced					
between classroom lecture with research, darkroom and digital	application.				

**Note:** Meets ICT and Math Experience requirement. Students must provide their own 35mm SLR camera with manual shutter speeds and aperture capabilities and a digital camera with point and shoot options to change modes and also required is a flash drive with 4GB capacity. It is recommended that students provide their own equipment. The high schools will provide assistance on a case-by-case basis for students without the required personal equipment. May be taken to fulfill the computer requirement or Art but not both.

Physical Condition & Communication Skills	1 Credit	Gr. 9, 10, 11, 12	Course: 9801		
This course provides students with severe communication issues an opportunity to use and improve augmentative					
communication strategies. It also gives students overall muscle conditioning to improve and maintain functional skills for					
daily living. The overall purpose of this class is to become more f	functional in oth	er aspect of their day l	by providing intensive		
physical and communication support.					

#### Prerequisite: Teacher recommendation.

Physical Science	1 Credit	Gr. 9	Course: 4013-	1
			4015-4017	

This course is designed as an introduction to the major concepts in chemistry and physics. The course includes concepts such as structure of atoms, periodic tables, principles of motion, forces, conservation of matter and energy, gravity and the behavior of waves. These concepts are investigated through laboratory experiences designed to promote and develop appropriate skills in science inquiry.

<u>Note</u>: Requirement for graduation. Students may obtain credit for this by successfully completing the portfolio process. The waiver does not meet the physical science graduation requirement.

Physics	1 Credit	Gr. 11, 12	Course: 4053,
			4055, 4057

Physics involves the identification and application of natural laws used to describe and explain the physical world around us. Through inquiry-based investigations, students will explore topics in Kinematics, (Motion) and Forces, Momentum and Energy, and Waves, (sound and light)> Students will conduct laboratory experiments, analyze data to draw conclusions, investigate and apply mathematical relationships between variables construct solutions to complex design problems and communicate technical information. Major concepts such as Newton's Laws and the Laws of Conservation of Energy and Momentum are applied throughout the course to everyday situations.

*Note:* Meets Math Experience requirement.

Prerequisite: (F & E) Biology and Geometry; (H) Biology, Geometry and Algebra 2

Piano	0.5/1 Credit	Gr. 9, 10, 11, 12	Course: 6111-6121

Students will survey a variety of skills and techniques applicable to piano keyboarding. These will include hand positions, common patterns, chords, folk tunes and necessary skills for beginning keyboardists. Students will practice further comprehension of properly and effectively using equipment through physical technique, literacy and practice. They will demonstrate how the elements of music are used to achieve unity and variety, tension and release and balance. Students are forming a collection of tools needed for proficiency.

*Note:* Course may be repeated for credit.

Plant Science	1 Credit	Gr. 11, 12	Course: 4551	
Explores the role of plants in society in the environment. Students study their structure, function, propagation, classification				
and identification making use of hands-on experiences in the classroom, greenhouse and surrounding school landscape.				
Students will learn skills needed for careers in the "green" industry or useful to the home gardener and plant hobbyist. If time				

allows, students are introduced to plant crafts such as floral arranging, wreath and corsage production and bonsai.

techniques will be presented as well as power transmission and drive trains.

<u>Note</u>: This course does not count toward weighted GPA. <u>Prerequisite</u>: Biology or portfolio credit.

Power Mechanics 1	0.5 Credit	Gr. 9, 10, 11	Course: 5741

Students learn the principles and methods of engine disassembly, inspection and diagnosing causes of breakdown and failure of engine parts. Students specialize in the repair of 2 and 4 cycle engines while learning proper procedure, correct use of tools, safety and test equipment. Power Mechanics is an entry level course preparing the student for a possible career as a mechanic, parts person, salesperson, power equipment technician, designer and automotive service technician.

**Note:** Meets Math Experience requirement.

Power Mechanics 2	0.5 Credit	Gr. 10, 11, 12	Course: 5841
Emphasis in this course will be hands-on repair and diagnost	ic techniques co	overing the evolution	ary development and
scientific principles of small engine operation. Engine system	s and troubles	hooting methods inclu	uding failure analysis

**Note:** Meets Math Experience requirement.

Prerequisite: Power Mechanics 1.

Practical Mathematics	1 Credit	Gr. 11,12	Course: 3023	
In this course students will explore mathematical reasoning, ap	plications, and	skills used in everyday	life. Topics of study	
include; pattern recognition, data science, functions, problem-so	include; pattern recognition, data science, functions, problem-solving, graphs, algebra, and geometry.			

Pre-Algebra	1 Credit	Gr. 9	Course: 3013		
This course advances the student from eighth grade mathematics to pre-algebra. After reviewing basic operations, students					
learn about real numbers and their properties, mathematical modeling that requires equation writing and solving in context,					
data analysis and statistics and geometry and graphs.					

Pre-Calculus	1 Credit	Gr. 10, 11, 12	Course: 3105-3107		
Students study polynomial, rational, trigonometric, circular, logarithmic and exponential functions. Applying, analyzing and					
modeling data is an integral part of the study of each function.					

**<u>Prerequisite</u>**: Advanced Math Topics or Algebra 2 (H) and Geometry (H/E) for Extension level. Algebra 2 (H) and Geometry (H) for Honors level.

Preparatory Foods	2 Credits	Gr. 9, 10, 11, 12	Course: 9851	
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This course focuses on the basic skills necessary to effectively participate in kitchen activities. Activities include kitchen and food safety, measuring, shopping, budgeting, coupon use, simple meal preparation, personal hygiene, reading, writing and social skills.

**<u>Prerequisite</u>**: Case manager/Special Education teacher recommendation.

Principles of Engineering	1 Credit	Gr. 10, 11, 12	Course: 5931-5937	
Through problems that engage and challenge, students explore a broad range of engineering topics including mechanisms,				
the strength of structures and materials and automation. Students develop skills in problem solving, research and design				
while learning strategies for design process documentation, collaboration and presentation.				

<u>Note</u>: Meets ICT and Math Experience requirement. <u>Prerequisite</u>: Introduction to Engineering Design

Probability & Statistics	1 Credit	Gr. 11, 12	Course: -3257
Students will explore probability and simulation and conditional	probability The	y will loarn the major (	concents and tools for

Students will explore probability and simulation and conditional probability. They will learn the major concepts and tools for collecting, analyzing and drawing conclusions from data. How measures of central tendency, dispersion and graphing techniques help us to observe patters and departures from patterns. Students enrolled in an honors level will learn and perform higher levels of inference including formal tests of significance.

*Note:* Students may take this course or AP Statistics but NOT both.

**<u>Prerequisite</u>**: Algebra 2 (E) or (H) for Extension level or Algebra 2 (H) for Honors level.

Public Speaking	1 Credit	Gr. 10, 11, 12	Course: 1455-1457		
Students will overcome stage fright and develop confidence in public communication skills. They study the fundamentals of					

outlining and researching for a speech and then give speeches of persuasion, demonstration, information and entertainment to classmates. Students put language into action by learning this useful skill.

#### Prerequisite: English 2

Reading	2 Credits	Gr. 9, 10, 11, 12	Course: 9051	
This class is for nonreaders or students reading below a secon	d grade level. (	Course content focuse	s on sight words and	
survival vocabulary utilizing basic sound/symbol relationships. It also teaches decoding skills.				

**Prerequisite:** Case manager/Special Education teacher recommendation.

Reading for Success	1 Credit	Gr. 9, 10	Course: 9061		
This course is for students who are looking for strategies to help comprehend fiction, interpret informational text and analyze					

a variety of reading content. This course is taken in addition to a regular English course and will not count as one of four required English credits.

**Note:** Instructor Approval Required.

Robotics Using VEX	1 Credit	Gr. 9, 10, 11, 12	Course: 5951, 5957

Students will master the fundamentals of science, technology, engineering and math (STEM) by designing robots using VEX EDR and Autodesk, Inventor, Frame Design, electronics, mechanics and integrating systems. Students will utilize mechatronics principles and will allow students to complete in head-to-head competition with their robots. This course is a bridge from middle school robotics into the Engineering Pathway.

**Note:** Meets ICT and Math Experience requirement.

Select Band	1 Credit	Gr. 10, 11, 12	Course: 6217

Join an instrumentally balanced band and tackle more challenging instrumental music. Students will perform music of varying styles, as well as learning the historical background of the composers. Explore correct instrumental techniques, small ensemble assessments and solo opportunities. Select Band performs with the Band as a combined ensemble for football games, parades and shows. Select Band performs at school and civic functions as well as concerts and competitions. Students are required to participate in all activities and will be encouraged to audition for the NH All-State Festival Ensembles and NH Jazz All-State Bands with the Band Director's permission

**Note:** One year of high school level Band and an audition with the Band Director required. Select Band is a performancebased course and may be repeated for credit. This is an A/B block class which means that it will be combined with another class and offered every other day throughout the year.

Small Business Management	1 Credit	Gr. 10, 11,12	Course: 5101-5107
Learn what it takes to run a small husiness! Students develop skil	Is and knowhow	needed to successfull	vonerate and manage

Learn what it takes to run a small business! Students develop skills and knowhow needed to successfully operate and manage a small business. This course builds skills and knowledge of business ownership, legal issues, market analysis, business finance/start-up costs, business trends, marketing, and pricing strategies through the development of a business plan on the student's business of choice.

#### Note: Meets ICT requirement.

Sociology	1 Credit	Gr. 11,12	Course:2353-
			2405-2407

Sociology is the study of human group behavior. This course covers topics such as racial, gender and ethnic relations as well as cultural diversity, criminal behavior and marriage and divorce. Learning activities include class discussions, films, experiments, readings and lectures. In addition, students participate in several small group projects involving numerous contemporary social and psychological issues. Since many current careers require working in small groups, students have the opportunity to gain information valuable for both college and employment. This course is highly recommended for those interested in learning how human groups work within our society.

Software Applications	1 Credit	Gr. 9, 10, 11, 12	Course: 5071

Students become proficient in the use of spreadsheets, presentations, word processing, and other applications through reallife projects. This course teaches students skills and techniques needed to be successful in both school and the workplace.

Note: Meets ICT requirement.

Spanish 1	1 Credits	Gr. 9, 10, 11, 12	Course: 8147	
Bienvenido! Open the door to new opportunities for travel, work and study. Soon your world will change as you learn a new				
language and different cultures. You will be able to communicate in Spanish with a focus on your daily life at school, home				
and with friends.				

Spanish 2	1 Credits	Gr. 9, 10, 11, 12	Course: 8247	
Go beyond the basics in this exciting course that explores hou	using, the comm	nunity, health/wellnes	s, and tourism in the	
Spanish-speaking world. Gain confidence through authentic learning tasks and creative situational problem-solving.				

#### Prerequisite: Spanish 1

Spanish 3	1 Credit	Gr. 9, 10, 11, 12	Course: 8347
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Where have you been? What did you do? Using the target language, explore past excursions and experience virtual travel to "target language" locations. On your way, you will go shopping, check out the latest fashions, go out to eat, and experience local traditions, customs, and celebrations.

#### Prerequisite: Spanish 2

Spanish 4	1 Credit	Gr. 9, 10, 11,12	Course: 8447
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Immerse yourself in the diverse culture of the Hispanic world through exposure to authentic music, literature, films, art, and more. You'll learn to communicate effectively in a variety of social settings and situations through dynamic activities.

## Prerequisite: Spanish 3

Spanish 5	1 Credit	Gr. 9, 10, 11, 12	Course: 8547	
Refine your communication skills in Spanish while exploring his	storical and con	temporary contexts.	The use of authentic	
materials encourages cultural awareness as you deepen your understanding and appreciation of the various aspects of the				
cultures of the Spanish-speaking world. Enjoy engaging activitie	es such as readir	ng fables, watching filr	ms, listening to music,	
and discussing current events.				

## Prerequisite: Spanish 4 or Spanish for Heritage Speakers 1

Spanish for Heritage Speakers 1	1 Credit	Gr. 9, 10, 11, 12	Course: 8747		
If you are able to speak and understand Spanish, or you were born in a Spanish speaking country, but then moved to the USA,					
if you would really like to learn to read and write as well as you speak and understand the Spanish language, this is the course					
for you! Imagine taking a class in Spanish where you will learn about your language and cultural heritage, meet students with					
similar interests and experiences, and gain awareness of how Hispanic culture and identity are a thriving, living presence					
throughout the U.S. Successful completion of this course will help prepare you for Spanish for Heritage Speakers 2, Spanish					
5 or AP Spanish.					

## **Prerequisite:** Diagnostic placement exam given by the World Languages department

Spanish for Heritage Speakers 2	1 Credit	Gr. 10, 11, 12	Course: 8847	
Have you successfully earned credit for Spanish for Heritage Speakers 1? Do you love to read and want to know more about				
the literature and history of the Spanish language? In this course, you will explore the diversity of the Spanish language,				
culture and history throughout the Americas and Europe, discover how ancient cultures have shaped our present day				
communities and how generations of Hispanic immigrants have enriched the culture, language and history of the United				
States. Successful completion of this course will help prepare yo	u for Spanish 5	or AP Spanish.		

# **Prerequisite:** Spanish for Heritage Speakers 1.

Sports Education	0.5 Credit	Gr. 9	Course: 7011
Students will learn personal and social responsibility through pa	articipation in a	variety of physical act	ivities by emphasizing

fair play, teamwork and compassion for teammates. Students will learn to recognize the qualities of positive sport experiences.

#### *Note:* Requirement for graduation.

Sports Literature	1 Credit	Gr. 11, 12	Course: 1555	
This literature source evenings themes in American and international sultures that are provalent in the world of sports. It				

This literature course examines themes in American and international cultures that are prevalent in the world of sports. It also examines the effects sports have on the economic, political and moral fiber of society and how individuals or teams have managed the challenges of competing at high school, college and professional levels. Additionally, the course contains a writing component which requires students to analyze critical themes such as motivation, self-preservation, peer pressure, teamwork, and values. Students should be prepared to complete daily reading assignments and participate in lively and open discussions.

# Prerequisite: English 3

Sports Statistics	1 Credit	Gr. 10, 11, 12	Course: -3255

In this course, students will learn to use some mathematical tools that can help predict and analyze sporting performances and outcomes. By exploring and evaluating sports data, students will draw conclusions through mathematical analysis and understand how math plays an integral role in the sports we enjoy.

## Prerequisite: Geometry

Studio Art	1 Credit	Gr. 10, 11, 12	Course: 6047	
This honors level advanced art course is designed for students who are personally motivated and want to challenge				
themselves within the realm of the visual arts. The course includes both guided instruction and independent learning that				
covers the areas of drawing, painting, printmaking, and sculpture	e. Students will	create a body of work	that may be included	

in a portfolio for college admission either as an art major or as a supplementary portfolio for other disciplines of study.

# <u>Note</u>: Course may be repeated for credit. <u>Prerequisite</u>: Advanced Drawing

The Roots of Rock & Roll	1 Credit	Gr. 9, 10, 11, 12	Course: 6161

Want to learn about Rock 'n' Roll? How about hip-hop or rap? The popular music culture? Then this is the course for you! You will listen to music from the 1960's through to the music of today and learn about the culture surrounding these styles of music!

	US History	1 Credit	Gr. 11	Course: 2033- 2035-2037
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Investigate the social, political and economic ideas and movements that have shaped modern American society. Emphasis is on the 20<sup>th</sup> century including topics such as social change, foreign policy and the development of the American culture and character.

<u>Note</u>: This is a required course that fulfills the State requirement for US and NH History. Students cannot take both this and AP US History.

Video Game Programming	1 Credit	Gr. 9, 10, 11, 12	Course: 3401
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Students will learn the concepts of computer programming including memory management, decision making, looping, objects and lists. We will be using different environments including but not limited to Scratch and Greenfoot. Students will focus on all phases of the game development process including problem solving, analysis, criteria definition, constraints, goals, design, coding, testing and de-bugging. Coding and programming will be done in Java.

# Note: Meets ICT and Math Experience requirement

Prerequisite: Geometry

Video Production & Broadcasting 1	2 Credits	Gr. 11	Course: 5601-5607

Video production and broadcasting introduce students to all aspects of the media industry. Students learn through hands-on projects how to use our state-of-the-art high definition broadcast facility and Mac computer lab, and learn on industry-standard equipment. Students learn about the art and technology of modern communication while producing award winning projects for the class, the school district and the community. They increase their self-confidence and organizational abilities by learning how to plan and execute projects on their own and in groups. Video production and broadcasting lays a foundation of skills, both technical and career readiness that properly prepares students for the next step of their career in the media industry.

**Note:** Meets ICT and Math Experience requirement. Course is offered at Nashua High South. North students must travel.

Video Production & Broadcasting 2	2 Credits	Gr. 12	Course: 5611-5617
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This class builds on the knowledge gained in the previous year by writing, producing and creating video programs for the class, the high school, the school district and the community. Students learn more about cable, satellite and web-based distribution channels. They build a portfolio and reel to help them further their education and employment opportunities.

<u>Note</u>: Meets ICT and Math Experience requirement. Course is offered at Nashua High South. North students must travel. <u>Prerequisite</u>: Video Production & Broadcasting 1 and NTC Director approval.

Woman as Hero	1 Credit	Gr. 11, 12	Course: 1545-1557			
Students study fiction, poetry, drama, non-fiction and film by women authors of diverse cultural backgrounds and analyze						
the role of woman as hero. These readings will be grouped according to life stages ranging from childhood to old age. The						
changing role of women in society is examined through advertising, language, film noir and women's companion films. This						

Prerequisite: English 2

Woodworking 1	0.5 C	redit	Gr	. 9, 10,	. 11	Course:	: 5771	
	-		-	-	-			

Develops basic woodworking skills by completing required projects from drawings. Students perform quality workmanship with both hand and machine tools, following safe practices with all equipment. Students interested in woodworking learn that the following careers are open to them: carpenter, designer, architect, draftsperson, cabinetmaker and building material salesperson.

*Note:* Meets Math Experience requirement.

honors level course is designed for male and female students.

Woodworking 2	1 Credit	Gr. 11, 12	Course: 5781		
Delves into an in-depth study of the properties of wood and its use as a building material. The study includes manmade wood					

products such as plywood, and wafer board, and plastics such as polyethylene, polypropylene, ABS and PVC. Students learn the principles of mass production including research and product development, interchangeable parts and, the use of jigs and fixtures and make use of both wood and plastic in a problem-solving approach to manufacturing products.

<u>Note:</u> Meets Math Experience requirement. <u>Prerequisite:</u> Woodworking 1.

Work Skills	0.5 Credit	Gr. 9, 10, 11, 12	Course: 9891			
Students will gain knowledge and tools to successfully complete work experiences within the school and community. Topics						
include: goal setting, team building and problem solving. Students participate in performance-based assessments while						
working throughout the school community. Work jobs may include: laundry, mail and newspaper delivery, washing dishes,						

**Prerequisite:** Case manager/Special Education teacher recommendation.

recycling and learning the life/job skills necessary to operate a student-run business.

Work Skills-Semester	1 Credit	Gr. 9, 10, 11, 12	Course: 9901			
This course teaches students the behaviors/skills associated with life beyond the high school. Topics include: goal setting,						

problem solving techniques, relationships and team building.

<u>Note</u>: This is not a job placement course. <u>Prerequisite</u>: Teacher recommendation.

World Studies	1 Credit	Gr. 9	Course: 2013-
			2015-2017

This course builds upon the middle school social studies courses and helps lay a foundation for US History in 11<sup>th</sup> grade. Beginning with the Enlightenment, World Studies explores the themes of revolution, economic develop and world conflict throughout history. Students will use a variety of primary and secondary source materials to critically analyze the social, political, technological and economic developments that have shaped recent history.

<u>Note</u>: This is a required course that fulfills the State requirement for World History, AP World History also fulfills the State requirement.

Zoology		, ,		Course: 4503- 4505-4507				
							4505-4507	

This course explores animal evolution, animal classification, adaptation and various aspects of animal physiology and comparative anatomy. Students investigate living and preserved animals and carry out laboratory activities which may include insect collection, animal project, microscope labs and selected dissections.

Prerequisite: Biology.

#### Courses Available at Alvirne High School

The following courses are available to students at both Nashua High School North and South. Students must fill out an application for the first year of the program and be able to complete the two year program. The application must be turned into the NTC Director's office in the Career Center. Students taking classes at Alvirne are required to take the bus provided for the trip to and from Alvirne.

#### No students will be allowed to use private automobiles for transportation. <u>Students will miss a significant amount of</u> <u>Nashua class time due to travel</u>. Please see your guidance counselor for more information. Students MUST successfully complete all year one competencies to advance to year two.

Forest and Wildlife Management 1	Full Year Course	2 Credits	Gr. 10,11	AL5731	
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This course is designed for students with an interest in a career in the outdoors. Through real-world hands-on projects, students will actively manage Alvirne's 126 acre registered NH Tree Farm. Course activities will immerse students in forest ecosystem science and management activities including; tree and shrub identification, forest health issues, wildlife studies, natural resource inventories, recreation and habitat improvements, and the harvesting and production of forest products including maple syrup production, lumber, and cordwood. Operation and maintenance of machinery is a significant component of this course and includes; chainsaws, tractors, portable sawmill, grapple loader, wood splitter, and wood chipper. Other topics cover history of conservation, environmental laws, and career readiness activities through involvement in the FFA. Considerable amount of time will be spent outdoors in this course in all weather conditions and steel toed boots are required. This course prepares students for entry level work or further education in a variety of outdoor occupations in the broad field of environmental conservation science and management, and the tree care industry.

#### Note: Steel-toed boots are required.

Forest and Wildlife Management 2	Two Year Course	2 Credits	Gr. 11,12	AL5831		

This course is a continuation of Forest & Wildlife Management I. In year two, second year students will be required to demonstrate foundational skills and knowledge, and build upon them through completion of more independent learning projects. Year two students will be involved in the development and implementation of the Tree Farms Forest Management Plan and community wide conservation projects, including conducting natural resource inventories, remote sensing and satellite image interpretation, resource mapping with drones, Geographic Information Systems (GIS), global positioning systems (GPS), and other cutting edge technologies used in the field of forest and wildlife management.

#### *Note:* Steel-toed boots are required.

Prerequisite: Successful completion of Forest and Wildlife Management 1

Heavy Duty Mechanics Tech 1 Full Year Cour	se 2 Credits	Gr. 11	AL5831
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This course is designed to give students an understanding of large diesel and gasoline engines as related to construction and agricultural equipment. Subject areas include: equipment operation and maintenance, theory of engine operation, engine overhaul, hydraulics, power train, operation, welding, diagnostics and troubleshooting. Safety will be stressed in all aspects of the course. Students will apply what they learn by gaining practical experience in the heavy equipment shop. Students can apply what they learn to help them with careers in mechanics, agriculture, construction or trucking.

*Note:* Students MUST successfully complete all year one competencies to advance to year two.

Heavy Duty Mechanics 2	Full Year Course	2 Credits	Gr. 12	AL5681
			<b>.</b> .	

This course allows students to apply and expand upon skills and knowledge gained in the first year of the program. Students will work on construction and agricultural equipment performing repairs, overhaul, diagnostics, and troubleshooting. Students will become independent through projects requiring record keeping, disassembly, analysis, replacement of parts, and final reassembly to a working condition. Students will troubleshoot basic diesel engine malfunctions using the latest computer technology. This course will help prepare students for an entry level job in heavy equipment maintenance or a technical school program in mechanics.

Prerequisite: Successful completion of Heavy Duty Mechanics 1

Veterinary Science 1	Full Year Course	2 Credits	Gr.10- 11	AL5631

The first year of this two year program introduces students to the applied principles and practices used in small and large animal related business with special emphasis on veterinary medicine. Students will explore concepts through hands-on experiences working with Alvirne's kennel animals such as chinchillas, rabbits, guinea pigs, ferrets, rodents, and birds along with our large animal species including donkeys, dairy cattle, and horses. Topics will also include safety, animal behavior, breed and species identification, animal health, welfare and client relations. Through continuous exposure to animals on the school farm and small animal facility, students will develop hands-on skills in handling, restraint, grooming, feeding, cleaning/disinfection, training and record keeping. Students will develop skills in professional telephone etiquette and customer service. Students will also be required to complete 12 hours of community service in an animal related service project. Students enrolled in Alvirne's Veterinary Science Program will have the opportunity to earn both high school credits and college credits simultaneously with a partnership with Great Bay Community College and SUNY at Cobleskill. The Veterinary Science curriculum will also enable students to develop their leadership skills and veterinary skills and opportunities through their involvement in the State and National Youth FFA organization including participation in the Veterinary Science Career Development Event (Competition). This course will provide students with entry level skills and knowledge for employment as veterinary assistants, pet shop workers, humane society assistance or assistant groomers.

<u>Prerequisite</u>: Successful completion of Biology or teacher approval required. Sophomores considering taking Vet Science <u>must</u> have teacher approval; prior to enrolling. Algebra 1 skills will be required in this program. Students MUST successfully complete all first-year competencies to advance to the second year of this program.

Veterinary Science 2	Full Year Course	2 Credits	Gr. 12	AL5641

In the second year of the Veterinary Science program students will continue to build on their knowledge and skills gained in the first year. Using the kennel's small and large animal species, advanced topics in veterinary science 2 will include nutrition and anatomy, health and diseases, veterinary medical terminology, and entrepreneurship. Hands-on skills will be developed in feed selection, laboratory procedures (I.e. fecal analysis, blood, and urine analysis), animal health and disease protection, such as vaccinations, deworming, grooming, physical exams, office skills, equipment identification, and business management. Students will also be required to complete 12 hours of community service in an animal related service project. Students enrolled in Alvirne's Veterinary Science Program will have the opportunity to earn both high school credits and college credits simultaneously with a partnership with Great Bay Community College and SUNY at Cobleskill. The Veterinary Science Career Development Event (Competition). With the completion of this program, a student's potential for success in a post-secondary education or in an entry level job in an animal science field is greatly enhanced. Students successfully completing Veterinary Science I and 2 with a C+ or better can earn 2 college credits at Great Bay Community College through Running Start or may earn articulation credits toward SUNY at Cobleskill.

#### Prerequisite: Successful completion of Veterinary Science I

<u>Note</u>: A chemistry course taken previously or concurrently is <u>strongly</u> recommended for Veterinary Science 2.. Students who complete both years of the Veterinary Science program with a 1 and 2 may earn 3 college credits at Great Bay Community College.

Welding 1	Full Year Course	2 Credits	Gr. 10, 11, 12	AL5791
Students will learn to are wold in the flat no	sition utilize an ever acetulor	o torch for cutting m	otal and loarn ha	sic MIC skills

Students will learn to arc weld in the flat position, utilize an oxy-acetylene torch for cutting metal and learn basic MIG skills. Through various exercises students will select the proper welding materials and demonstrate appropriate techniques. This course is useful for any student planning a career in the fields of mechanics, engineering, agriculture, construction, machine trades, or civil technology. Students MUST successfully complete all competencies to advance to Welding II. Grade 10 & 11 students will be given priority when scheduling.

Welding 2Full Year Course2 CreditsGr. 11, 12AL5801
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In year two of the welding program students will delve into advanced MIG, TIG, and stick welding skills. Using torch and plasma cutters students will develop their own self-directed projects to encourage growth of welding skills and to connect program contents to real life applications. Students will use oxy-fuel, shielded metal arc, metal inert gas, gas tungsten arc, gas metal arc, and plasma metal arc equipment to develop real-world skills in a controlled environment. Students will build partnerships with business and community members to help master skills.

Prerequisite: Successful completion of Welding 1



# **SECTION 5**

### Programs and Services

Nashua High School

Nashua High School South and Nashua High School North offers a variety of programs and services that complement our program of study. These programs and services enable the administration and staff to provide additional opportunities to meet the individual and special needs of our student body. The integration of these programs and services will improve the overall performance of the students in their school work.

#### English Language Learners (ELL)

The Nashua School District's policy for instruction of students for whom English is a second language is one of immersion in the school program. This immersion is supplemented by instruction in the ELL program until the student attains a demonstrated status of functional English proficiency. At this time, the student is transitioned from the ELL program and is provided with support while eventually achieving an instructional level appropriate for the student's grade placement. Communication will occur between the home and the school to promote understanding of the ELL program and to assist students in adjusting to the school environment. Whenever possible, this communication will be in the language spoken at home.

#### In Gles Como Segundo Idioma

Este curso ofrece immercion en el ingles para los estudiantes cuyo primer idioma no es ingles. Esta imercion se ofrece junto con clases especializadas en el lenguaje ingles hasta que el estudiante logra demonstrar dominio del idioma. Cuando el estudiante logra dominal el idioma ingles pasa a tomar clases regulares con ayuda adicional para que el estudiante pueda seguir teniendo exito en sus cursos regulares y al nivel del grado en que esta. Hay cordinacion de servicios entre las es- cuelas y el hogar para asegurar Buena comunicacion y exito academic. Cuando es possible esta comunicacion se lleva acabo en el idioma que se habla en el hogar.

#### **Library Media Services**

The mission of the school Library Media Center is to ensure that students are effective users of ideas and information. Through collaborative efforts between the teachers and the library media specialists, learning activities are integrated into the curriculum to help students achieve information literacy. Information skills include the selection, use, evaluation and presentation of information. The Library Media Center collection consists of a wide variety of materials selected to support the curriculum. These include books, periodicals, databases and audio-visual materials. Most items may be borrowed through the use of the student's identification card. Our various online databases, which can be accessed from both school and home, provide full-text articles from magazines, newspapers, academic journals and reference books. Students have access to the district's computer network and the internet through individual accounts. All students must sign and abide by the Nashua School District's Responsible Use Guidelines.

#### **Special Education**

Special Education services are tailored to the educational needs of students according to their individual education plans (IEP). If an educational disability is suspected to interfere with academic success, students should be referred to their guidance counselor or administrator for further review.

#### Student Extracurricular Activity Eligibility – Academic Expectations

To be eligible for extracurricular activities, a high school student athlete and/or student participating in an extracurricular activity must have, for the prior grading period, an overall "C-" average and have no more than one non-passing grade in subjects during that prior grading period. It is quarter grades, not semester or final grades that determine academic eligibility.

#### Advanced Placement Program

Advanced Placement courses are designed to challenge highly motivated students who have demonstrated exceptional academic ability and who wish to study at the college level while still in high school.

The College Board provides tests for all Advanced Placement courses. These tests are administered during the month of May. Students must register to take the AP exam in advance and pay the required fee. Information is available in the Guidance Department. If this fee will cause a financial hardship, students should contact their guidance counselor for information about financial assistance. In order to be considered for college credit or college standing, students must satisfactorily complete these tests. Students enrolled in AP courses should check with the college of their choice to receive information concerning the college's policy regarding Advanced Placement credit or/or standing.

Please note that only courses which have adequate enrollment will run. Students are encouraged to discuss taking AP courses with their parents, guidance counselors and teachers. All students who participate in Advanced Placement courses are expected to take the Advanced Placement exam which is administered in May.

#### Nashua Center for Lifelong Learning

Adult education credit earned in the Nashua Center for Lifelong Learning (NCLL) is available to students at Nashua North and Nashua South subject to prior approval of the Director of the Nashua Center for Lifelong Learning. One high school credit will be earned for each course provided that the student meets the established competency requirements for the course. The number of high school credits granted toward graduation requirements would be determined by the high school principal in consultation with the director of the NCLL.

#### **Extended Learning Opportunities**

The Nashua Board of education allows high school students to pursue extended learning opportunities (ELO) as a means of acquiring knowledge and skills through instruction or study that is outside the traditional classroom methodology. Extended learning opportunities may include, but are not limited to,

- College/University classes
- independent study (to learn more about a topic that excites them which they want to explore deeply),
- internships (to gain practical experience in a potential career or academic field of study),
- Community service (to volunteer to serve our community in a meaningful way),
- Apprenticeships (to learn a craft from a skilled worker), or
- Other opportunities approved by the Superintendent or his/her designee, in conjunction with Board policies.

The purpose of extended learning opportunities is to provide educational experiences that are meaningful and relevant, and that provide students with opportunities to explore and achieve at high levels. In order to maximize student achievement and meet diverse pathways for learning, this policy permits students to employ extended learning opportunities that are stimulating and intellectually challenging, and that enable students to fulfill or exceed the expectations set forth by state minimum standards and applicable Board policies.

http://www.nashua.edu/Nashua/Media/PDF-files/Policies/IHBH-EXTENDED-LEARNING-OPPORTUNITIES.pdf

Extended learning opportunities may be taken for credits or may be taken to supplement regular academic courses. Extended learning opportunities may also be used to fulfill prerequisite requirements for advanced classes. If the extended learning opportunity is taken for credit, the provisions of Policy IMBC, alternative Credit Options, will apply (http://www.nashua.edu/Nashua/Media?PDF-files/Policies/IMBC-Altrnative-Credit-Options.pdf and http://www.nashua.edu/Nashua/Media/PDF-files/Policies/Nashua-Board-of-Education-Policy-ILBA.pdf) and ILBAA, High School competency Assessments (http://www.nashua.edu/Nashua/Media/PDF-files/Policies/ILBAA-High-School-Competency-Assessments-revised-02-19-2009.pdf).

#### **Roles and Responsibilities**

All programs of study must meet or exceed the proficiencies and skills identified by the New Hampshire State Board of Education, applicable rules and regulations of the Department of education, and all applicable Board policies. All programs of study proposed through this program shall have specific instructional objectives aligned with the State minimum standards and District curriculum standards. All extended learning opportunities will comply with applicable laws and regulations, including child labor laws and regulations governing occupational safety.

Students wishing to pursue programs of study under these guidelines must first present their proposal to the person coordinating extended learning opportunities for the school. At Nashua North, please contact the Director of School Counseling at 603-966-2506 or your school counselor. At Nashua South, please contact the Director of School Counseling at 603-966-1106or your school counselor. These people will assist students in preparing the application form and other necessary paperwork.

The Principal and/or designee will have primary responsibility and authority for ensuring the implementation of extended learning opportunities and all aspects of such programs. The Principal will determine who will be responsible for approving student eligibility and such approval will include a considerations of the overall benefits, costs, advantages, and disadvantages to both the students and the district.

The Principal and/or designee will review and determine credits that will be awarded for extended learning opportunities toward the attainment of a high school diploma. Parents/guardians and/or students may appeal decisions rendered by the Principal within the provisions below (see Appeal Process).

Students approved for an extended learning opportunity must have parental/guardian permission to participate in such a program. The Alternative Credit Option form used in applying for an extended learning opportunity must be signed by the parent/legal guardian.

#### Please Note:

All extended learning opportunities not initiated and designed by the district shall be the financial responsibility of the student or his/her parent/legal guardian.

Students electing independent study, college coursework, internships, or other extended learning opportunities that are held off the high school campus

- Students approved for off-campus extended learning opportunities are responsible for their personal conduct, safety and well-being.
- Extended learning opportunities at off-campus sites will require a signed agreement among the school, the student, and a designated agent of the third-party host. The agreement should specify the roles and responsibilities of each party.

#### Application Process

- 1. The application process is to be completed by the student/parent/guardian seeking approval for the extended learning opportunity in conjunction with the HQT teacher.
- 2. The application should be completed and submitted at least thirty (30) days prior to the beginning of the proposed program. However, the Board recognizes that short-term notice opportunities may present themselves to students from time to time. As such, the Principal may grant waivers to the thirty (30) day submission requirement at his/her discretion, provided all other application criteria are satisfied. Such waivers will be granted on a case-by-case basis. All required information must be attached to the application and submitted to the student's School Counselor.
- 3. The application will be reviewed by appropriate District staff and administration and a decision will be made within ten (10) days of receipt of the application. The student will be notified in writing of the status of the application. If additional information is requested, the information must be submitted within one week of the receipt of the request.
- 4. It is the student's responsibility to maintain academic standing and enrollment in the approved program. Any

failure to complete an approved program may jeopardize the student's ability to earn credit for the course. The student and parent/guardian recognize that in the event that student withdraws from the approved program, the District cannot guarantee placement in an equivalent District-offered course.

5. The District reserves the right to determine the number of credits to be awarded. All Extended Learning Opportunities will earn credit on a Pass/Fail basis and will be noted on the student's official transcript.

#### **Evaluation Criteria**

The Principal and/or designee will evaluate all applications. At a minimum, all applications must meet the following criteria:

- Provides for administration and supervision of the program.
- Provides that certified school personnel oversee and monitor the program
- Requirement that each extended learning opportunity meets rigorous standards, including the minimum standards established by the State Board of Education and all other applicable District standards.

#### **Appeal Process**

A student whose application has been denied may request a meeting with the Principal. The Principal will provide the student with rationale as to why the proposal was denied.

Students may resubmit alternate proposals for consideration if such proposals are made within the timelines established by this policy. If the principal rejects the resubmitted proposal, the student may appeal to the Superintendent, or designee. All decisions made by the Superintendent, or designee shall be final.

#### **Program Integrity**

In order to insure the integrity of the learning experience approved under this program, the student will be required periodically or upon demand to provide evidence of progress and attendance. The Principal will be responsible for certifying course completion and the award of credits consistent with the District's policies on graduation.

- If a student is unable to complete the extended leaning opportunity for valid reasons, the Principal, Principal's designee, or assigned certified teacher will make a determination of partial credit, recommend an alternative experience or allow for extended time to complete the project.
- If a student ceases to attend or is unable to complete the learning opportunity for insufficient reason (lack of effort, failure to follow through, indecision, etc.), the Principal or designee may determine that the student's transcript be adjusted to reflect the experience as a failure.
- In order to certify completion of co-curricular programs and activities based upon specific instructional objectives aligned with standards, the school will develop appropriate mechanisms to document student progress and program completion on student personnel records.
- Students transferring from other schools who request acceptance of course credits awarded through similar extended learning opportunity programs shall have their transcripts evaluated by the school counselor and Principal.
- It shall be incumbent upon the students or his/her parent/legal guardian to request that copies of the student's official transcript be sent from the former school.

#### **College Courses/Dual Enrollment**

Students can also earn credit by taking a course at a college or university providing the parameters outlined in POPPS (see link in introduction above). College/university credit will only be accepted with prior approval of the high school principal or designee. One high school credit will be granted for a college course provided that a passing grade is earned, but will not be factored into calculation of the student's GPA. The following criteria will also apply:

- 1. College/university credit will be accepted for courses whether offered at Nashua's high schools or not.
- 2. A student enrolled and attending a college/university full time may be a concurrent student of Nashua's high schools. A student earning college/university credit may use those credits to meet his/her Nashua graduation requirements.
- 3. Students may use college/university credit to substitute for credits not yet earned.
- 4. College/university credit will be accepted for students who are constructing a plan to graduate from high school early.

For more information please reference POPPS <u>http://www.nashua.edu/Nashua/Media?PDF-files/Policies/IMBC-R-alternative-Credit-Options,-Process-and-Procedures.pdf</u>

#### **Online Education**

The Board encourages students to take full advantage of on-line education opportunities as a means of enhancing and supporting their education. Online education means internet/online/virtual or other similar media that provides educational courses as a means to fulfill curriculum requirements. Such opportunities, including responsibilities for associated costs, will be implemented under the provisions set forth in Policy IMBC, alternative credit options, will apply.

Students must have their application for online education courses pre-approved by the Director of School Counseling in order to receive credit. Once written approval has been given, the course will become part of the student's transcript and upon conclusion of the course the grade earned will also become part of the student's transcript, but will not be factored into the calculation of the student's GPA. Credit for the course is not recognized until an official record of the final grade has been submitted to the principal or designee. Approved online courses may be taken whether they align with the district calendar or not.

A full description of the policies and procedures linked to online education can be found at <u>http://www.nashua.edu/Nahsua/Media/PDF-files/Policy/IMBA-On-Line-Education.pdf</u>

#### **Dual Enrollment and Project Running Start Credit**

Nashua High School North and South provide opportunities for students to earn college credit through either Dual Enrollment or Project Running Start.

The Dual Enrollment Program:

- Students will receive both high school and college credit for a course.
- Dual Enrollment credits may be transferred to other colleges and universities throughout the country.
- All participating students are recognized as a Nashua Community College, NHTI-Concord's Community College, Great Bay Community College, or Manchester Community College student and will have access to many college resources such as their library.

Project Running Start:

- College credit awarded in high school
- Reduced tuition costs.
- Minimal, if any, costs for textbooks and course materials

#### <u>Please note that course sections of the course taught by a College Approved Instructor will qualify for college credit.</u> <u>Placement with a Running Start teacher is not guaranteed.</u>

For more information on Dual Enrollment or Running Start, please contact the Career Center Coordinator

The awarding of credit and who is eligible to earn the credit is determined by the college.



## **SECTION 6**

School Counseling Department

Nashua High School

The School Counseling Department offers students academic, career, and personal counseling. Students analyze test results, discuss their strengths and weaknesses, and choose courses which best fit their needs, abilities and future plans. Each student is assigned to a counselor and conferences between student and counselor take place by appointment. Counselors encourage team planning which includes the student, parent, and teachers, to help ensure optimum success and achievement for the student. Additional school counseling information is available by following the link on the school's homepage on the web (www.nashua.edu).

#### **EVENING PROGRAMS FOR PARENTS & STUDENTS**

**Informational meetings on scheduling/planning** for high school will be held to provide a general orientation to the school in addition to information regarding the course selection process and development of a four-year plan. Please check the website, newspaper and mailings from each school for dates and times of these meetings. Nashua High South meetings will be held in the South auditorium and Nashua High North meetings will be held in the North auditorium. Members of the school administration and School Counseling department will be present to answer specific questions about courses, pre-requisites, sequences, graduation requirements, and deadlines for completed course selection.

A College Fair is hosted in early November (at Nashua High South) and in April (at Nashua High North) in the school gymnasiums. Representative for over 200 colleges and universities are available to meet with students and parents. This is an excellent opportunity to gather preliminary information on a variety of post-secondary education options.

**A Financial Aid Workshop** is an evening presentation provided to students and parents. An expert in the field of Financial Aid explains the rationale governing financial aid and how to complete the required federal form. There is also time for answering questions of a general nature.

**College Planning Night** is offered to parents and students in early fall. This evening is designed to review college application procedures including college search, common application, teacher recommendations, scholarship and financial aid information. Counselors also review information surrounding submitting credentials through Naviance.

**Junior College Planning Night** is offered to parents and juniors in the spring of the junior year. This presentation is designed to discuss the college search, college visits, SAT and ACT, application timelines, and Naviance.

#### SCHOLARSHIP

Material on scholarships is available in the School Counseling Offices and may be accessed on the Naviance website. Scholarships will be announced when the applications become available. A listing of all available scholarships is available on the Naviance website.

A Free Application for Federal Student Aid (FAFSA) is required for most types of financial aid. Some colleges also require the CSS Profile. These forms are used by college financial aid offices, the Federal Government and the State of New Hampshire to determine grant eligibility, student loans, and institutional scholarships. In addition, separate institutional financial aid applications, available from each college, must be filed with the college financial aid office according to the specific deadlines.

#### THE NASHUA HIGH SCHOOLS' CAREER CENTER

The purpose of the Career Center is to help prepare students for their future by providing resources and experiences, which promote career awareness and develop career related skills. The services provided are career assessment, work-based learning opportunities, employment development and placement. The Center's reference materials and expertise of the staff are available for classes or for individual students who want to explore their career opportunities.

#### **TESTING INFORMATION**

For those considering college, it is recommended to take examinations such as the PSAT in the fall junior year followed by the SAT Reasoning Test, SAT Subject Tests and/or the ACT Assessment. These tests are required for admission to many colleges, and students should check carefully to learn the specific testing requirements for admission to each college they are considering.

• Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT)

The PSAT/NMSQT is a test given to interested juniors, sophomores and freshmen. The PSAT is a 2 hour and 45 minute examination measuring evidence-based reading, writing, language and math. Scores are reported from a low to high score of 160-760 for each section, with total overall scoring for the test from 320-1520, which more closely mirrors the SAT scoring. There is no longer a penalty for guessing on the PSAT, you simply earn points for the questions you answer correctly, so there is no advantage to leaving answers blank. The PSAT offers practice for the SAT and is a key step in planning for college. All college bound students should plan to take the PSAT. In addition, students who elect to take the PSAT junior year may be eligible for National Merit Scholarships. The Nashua School District is currently offering the PSAT to all sophomores free of charge.

• SAT and SAT Subject Tests

Many colleges require the SAT. It is 3 hours (plus 50 minutes for the essay (optional). The SAT has 2 (or 3 depending on if the student completes the essay) scores, each on a 200-800 scale, with total overall scoring for the test from 400-1600. Scores will include evidence based reading, writing and math. The essay is optional. The changes in the SAT are designed to measure skills and knowledge needed to be ready for college and better reflect what students learn in class. There is no penalty for guessing on the SAT. The SAT is given on Saturday morning seven times a year and students must register online at www.collegeboard.org. In addition, the state of NH has selected the SAT as its state assessment for reading and math and is being administered to all juniors free of charge in the spring during the school day. For more information on the SAT tests, please refer to the College Board website. Some colleges require Subject Tests in specific areas such as Literature, American History, Intermediate and Advanced Mathematics, French, German, Spanish, Biology, Chemistry, etc. The SAT Subject Tests are one hour in length and are given on Saturdays between one and six times a year. Please check requirements of the college(s) to plan a testing schedule that meets college deadlines. A maximum of three tests may be taken at any one testing session. *Note:* The math tests (Level 1 & 2) suggests the use of a scientific- graphing calculator which must be supplied by the student. It is advised that the student be familiar with the operation of this calculator prior to test day.

ACT Assessment

The ACT Assessment is a college admission, scholarship, guidance and placement test battery designed to provide helpful information to colleges, high schools and students. The test consists of four areas: English, Mathematics, Reading and Science. The ACT Assessment and the ACT Assessment plus Writing (30 minute tests for an additional fee) are given on Saturday mornings six times a year and students must register online. The ACT is an alternative to the SAT. You may consult with your school counselor who will discuss your testing choices with you. More information about the ACT can be found at www.actstudent.org.

• Armed Services Vocational Aptitude Battery (ASVAB)

The ASVAB is offered to students on a voluntary basis and administered by the local military recruiter.

• Other Testing Information

School Counselors can assist students in making arrangements to take a number of other tests. In school testing can be provided for career assessment and Advanced Placement purposes. In addition, information is available regarding Testing of English as a Foreign Language (TOEFL). Interested students should see the school counselors for details about these and other tests. Advanced Placement testing is offered in May, and individual teachers are in the best position to advise students about participation.

#### **Requesting Accommodations for Standardized Tests for Students with Disabilities**

Testing accommodations for students with disabilities are available but must be requested months in advance.

Visit <u>www.collegeboard.org/ssd/student</u> for detailed information about completing a Student Eligibility Form, the review process by the College Board, and registering to take the tests.

Discuss this with your case manager with whom you can initiate and complete the process.

#### Want To Go To College? Follow these steps...

#### Freshmen Year – Grade 9

- Talk with your parents and school counselor about future plans.
- Take challenging courses that prepare you for college.
- Attend school each day.
- Explore careers that interest you.
- Participate in extracurricular activities. Keep a record of them.
- Utilize Naviance for Career/College Information.

#### Sophomore Year – Grade 10

- Review your selection of high school courses, keeping in mind career paths and college entrance requirements.
- Talk with your parents and school counselor about your future goals.
- Take the PSAT 10 in the spring.
- Attend a College Fair.
- Continue involvement in school and community activities. You can create a portfolio of these in Naviance.
- Select challenging courses for your upcoming junior year. Consider taking honors or Advanced Placement courses in your best academic areas.

#### Junior Year – Grade 11

- Renew your commitment to take challenging courses. If you have not taken a world language, please consider taking one. Most colleges require a minimum of two years of the same language.
- Take the PSAT NMSQT in the fall.
- Meet with college representative. The list of college representative visits is available in Naviance.
- Make a list of your abilities, interests, needs and goals, and explore your college and career options with your parents and school counselor.
- Make an initial list of colleges and careers that interest you and seek out information about them.
- Attend the Nashua College Fair in the fall.
- Begin researching colleges.
- Begin visiting colleges or attend a college open house program.
- As part of New Hampshire State Testing, all juniors are required to take the SAT in their junior year
- If you are a potential college athlete, register with NCAA Clearinghouse at <u>www.ncaaclearinghouse.net</u>.
- Investigate pre-college and enrichment programs for the summer or secure a part-time summer job.

#### Senior Year – Grade 12

- Begin college applications.
- Attend College Planning Night in the fall.
- Keep in application deadlines in mind.
- Meet with college representative. The list of college representative visits is available in Naviance.
- Apply for Scholarships. A list of scholarships is available through Naviance.
- Meet with your school counselor to discuss your college plans.
- Request a letter of recommendation from a teacher
- Avoid "senioritis" and stay focused on school.
- Attend Financial Aid Night